

THEORETICAL FOUNDATIONS OF COMPETITIVENESS MANAGEMENT OF HEALTH CARE INSTITUTIONS

Yuriy Safonov¹, Viktoriia Borshch², Oleksandr Rogachevskiy³

Abstract. Increasing the competitiveness of health care institutions is an urgent issue for health care in the new funding environment. *The purpose* of this work is to analyze the existing tools for competitiveness management in the healthcare sector. The problems of competitiveness management development are investigated. State regulation, political dynamics, changing socio-demographic characteristics and constant technological development cause significant changes in the healthcare sector, but despite this, state restrictions, conservatism of Ukrainian healthcare and lack of management specialists are the main problems of Ukrainian healthcare. This necessitates the use of the principles of competitiveness management of modern health care institutions. *The main methodological* approach used in the work is a review of literature sources. The analysis of scientific literature revealed the absence of unified methodological approaches to measuring competitiveness, and many of the proposed methods do not take into account the specifics of the health care system, as well as the areas of activity of the medical organization. The existing models of competitiveness management tools differ from each other, and their use is conditioned by many factors. The role and impact of competition in the healthcare sector is considered separately. The theoretical basis of the study is a systematic approach to understanding the relationship between different levels of health care. Important conceptual issues of measuring competition in healthcare, including S.W.O.T. analysis, competitive advantages, human resources assessment, benchmarking, etc. are considered. The results of this study form the methodological and practical basis for improving the competitiveness management system of health care institutions in Ukraine, which operate in difficult socio-economic conditions.

Key words: competitiveness, competitiveness management, healthcare institution, medical services market, health care.

JEL Classification: I11, I15

1. Introduction

In the context of the ongoing transformation of the healthcare system of Ukraine, the task of finding a model of an effective national healthcare system, adequate to the modern realities of society and competitive in the global space, remains extremely relevant. Before proceeding to the analysis of the competitiveness management system of health care institutions, it is necessary to conditionally characterize the current state of the national health care system. Unfortunately, the existing health care system in Ukraine does not allow to implement the desired principles of marketing relations in the emerging market of medical services.

It is well known that a market economy cannot be imagined without such concepts as "competition" and "competitiveness". In countries with developed market economies, public and private health care institutions have existed for many years in conditions of sectoral competition, but in Ukraine the competitive environment is still not developed. The main factors of low and sometimes even absent competitiveness among Ukrainian healthcare institutions are as follows: – a revolutionary transition from the administrative and planning system of the Semashko healthcare model to the uncontrolled process of forming marketing relations in the context of the evolutionary formation of the healthcare market;

¹ State Scientific Institution

"Institute of Education Content Modernization", Ukraine (*corresponding author*)

E-mail: sum1971@ukr.net

ORCID: <https://orcid.org/0000-0001-5623-1965>

² Odessa National Medical University, Ukraine

E-mail: viktoriyaborshch@gmail.com

ORCID: <https://orcid.org/0000-0001-6400-7840>

³ Odessa National Medical University, Ukraine

E-mail: rogachevskiy75@gmail.com

ORCID: <https://orcid.org/0000-0002-8063-258X>



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- conservative form of ownership of health care institutions, as well as uncertainty of the formation and development of small and medium-sized businesses in the existing health care system. This does not correspond to classical economic laws and conditions of competition and competitiveness;
- the predominance of the public sector in health care in Ukraine, which is absolutely regulated and financed by the state. This creates a state monopoly in the healthcare sector;
- lack of modern managers in the public health system who are able to competently solve organizational, financial and other management problems and tasks of the health care institution;
- absence in the educational programs of Ukrainian medical universities of such discipline as "Management of competitiveness in health care", and unfortunately, as a rule, even the absence of the discipline "Management in health care";
- unjustified caution in the implementation of evidence-based planning methods, such as system analysis, forecasting, optimization of medical activities, etc. in the context of the formation of the health care market;
- lack of political will in making sound management decisions to bring to the logical implementation of modern mechanisms, methods and forms of continuous improvement of the quality of medical care.

Other factors contributing to the inefficiency of the competitive environment in Ukrainian healthcare are the following:

- gaps in legislation (permitting and incentive mechanisms, such as licensing and accreditation);
- poor access to medical information, for example, on the quality of services provided;
- high differentiation of services, which leads to significant variation in prices and the need of the population for different health services, as well as interference in pricing;
- heterogeneity of patients (level and structure of morbidity and disability, socio-economic characteristics, etc.

When studying the problem of formation and management of the competitive environment of production and consumption of medical services, it is necessary to understand the negative role of incentives in the health care system, which contribute to the creation of conditions for the absence or unproductive competition.

Some factors that cause this problem and in principle do not allow to form a competitive environment in health care are listed below.

1. Multilevel system of consumers (intermediaries) of medical services, such as:

- a) the state (program of state guarantees of free medical care);

- b) patients (exclusion of the consumer of medical services from the system of active influence on the quality of medical care);
- c) management of health care institutions (bureaucratic directive-command regulation of relations between patients and health care workers);
- d) physicians (making decisions about treating their patients and providing that treatment takes place in a competitive and economic vacuum);
- e) health insurance organizations (in the Ukrainian healthcare model there is just voluntary medical insurance).

2. Conflicting interests of the subjects of production and consumption of medical services.

3. Patients are responsible for paying for medical services, and doctors are not responsible for the quality of medical services provided.

4. Lack of objective indicators of the quality of medical care for patients and doctors.

5. Impossibility of establishing an unambiguous link between the price and quality of the provided medical service.

6. A specific feature of the patient as a consumer of medical services, which distinguishes him from consumers of other (non-medical) goods and services, is a kind of absolute priority of preserving life and health, without regard to possible costs.

7. Lack of opportunity and extremely insufficient awareness of patients about the prices of medical services from different doctors. Certain sensitivity in obtaining such information directly from the attending physician;

8. Lack of financial resources for the majority of the population to pay for quality medical care according to their wishes and choices;

9. Subjectivity of the decision-making process among the population regarding the choice of institution, specialist, treatment and preventive measures, based only on their own impressions and opinions of friends, image, reputation and ability to persuade doctors. (Fuch, 1988; Greenberg, 1991; Soltman, Busse, Mossialos, 2002)

In general, health care is of great importance for society and has a number of features that distinguish it from other spheres of socio-economic activity, which greatly complicates the transition of this sphere to market conditions and creates preconditions for a number of reservations in the application of market principles.

Unresolved aspects of the problem. All of the above leads the researchers to the conclusion that in the current state of domestic health care (more precisely, in the emerging sphere of production and consumption of medical services), there is no fundamental management system. And, consequently, there are no relevant relations of subjects, such as competition. This makes it virtually impossible to

implement such a mechanism to improve the quality of medical services.

The purpose of the article. Thus, the challenge is to offer theoretical tools for creating a system of competitiveness management of health care institutions that will ensure their sustainable growth and market stability.

2. Theoretical foundations of competition in the healthcare sector

Analyzing various literature sources, starting with Adam Smith, it can be argued that there are many definitions of the concept of competition. Much less research is devoted to competition in the healthcare sector.

Thus, it is necessary to adapt the existing definition of competition to this practical area. While analyzing different definitions, the authors came to the following understanding of the term competition in the healthcare sector: is a state and process of relations between the subjects of production and consumption of medical services within the framework of a specific civilized form of competition between medical workers (doctors) to achieve the highest degree of satisfaction of the patient's target needs.

Today, competition in the field of health care exists both between state, municipal and private health care institutions, and between state and municipal institutions (district and regional polyclinics, hospitals, etc.), as well as between doctors themselves as specialists providing medical services. Its accessibility is ensured by law, based on the patient's right to choose a doctor and medical institution, as well as in fact, as evidenced by modern medical practice.

Thus, competition is an objective and necessary function of the activity and development of the health care market (Porter, 2005). The key role of competition in health care is the potential to provide a mechanism for reducing health care costs (Rivers, Glover, 2008).

According to the authors, many aspects and factors of functioning and development of health care institutions and medical practice can be synthesized in competitiveness. At the same time, the competitive environment itself is ambiguous and contradictory.

Researchers identify some contradictions that arise in the functioning of competition in the healthcare sector. In particular, they include the following:

1. Contradiction between the incentive system in health care and the fundamental laws of competition. This is reflected in the fact that high prices for medical services are maintained even in conditions of excess supply.

2. Tension between expensive medical technologies and universal access to medical services. The high price of medical technologies has a direct impact on price growth, which in turn reduces the access of consumers (patients) to medical services (even without improving the quality of medical care).

3. The conflict is manifested in the fact that the current system of incentives for medical work encourages the introduction of innovations, increase in costs or quality without a corresponding reduction in the cost of quality medical services. At the same time, the key role of competition in health care is the potential to provide a mechanism for reducing health care costs.

Thus, the above contradictions indicate a low possibility of introducing free market rules in health care while maintaining its social orientation, namely universal access to quality medical services for the entire population. But, nevertheless, the main idea of competition – "ensuring the provision of the best goods and services to meet the needs of consumers" – is being implemented.

Competition in the healthcare sector is divided into certain levels. Thus, it is logical to distinguish the following levels of the competitive environment in the production of medical services (Figure 1):

- 1) Competitiveness of national healthcare at the international level, which is influenced by medical innovations, high technologies, etc.
- 2) Competition between consumers of quality medical services.



Figure 1. Levels of competition in Ukrainian healthcare

- 3) Competition between pharmaceutical companies.
- 4) Competition between private healthcare institutions.
- 5) Competition between public healthcare institutions.

But it should be noted that in the state sphere of medical care there is no competitive environment of production and consumption of medical services, as well as real conditions that would allow to form such an environment. This is where the social orientation of health care is manifested.

Thus, in Ukraine competitiveness management can be applied to private healthcare institutions and pharmaceutical companies. The latter are not the subject of this study.

3. Competitiveness and competitiveness management of healthcare institutions

Competitiveness, as well as competition, are universal concepts for any market of goods and services (Rivers, Glover, 2008).

Competitiveness refers to the ability of a healthcare institution to compete in the healthcare market in terms of such parameters as:

- professional level of medical staff;
- quality of medical services;
- cost of medical services;
- features of service provision;
- ability to meet the requirements of consumers (patients) to the maximum extent possible;
- ability to introduce medical and technological innovations in the process of service provision.

Thus, the authors are confident that the quality of medical services, based on the high professional level of medical staff and the ability of the health care institution to introduce medical and technological innovations in the process of their provision, is the main competitive advantage of any health care institution.

At the same time, the healthcare sector imposes specific restrictions on the formation of a competitive environment in the medical services market.

According to the authors, the competitive environment in the health care sector is a complex economic category characterized by the interaction of the state, public and private health care institutions, external and internal factors of influence on the conditions of economic activity in the health care sector, which determine the appropriate level of economic competition and the importance of individual business entities on the overall market situation.

It may be noted that unlike goods, the competitiveness of which is easy to assess directly, the competitiveness of medical services is usually assessed indirectly.

Some features of the assessment of competitiveness of medical services are as follows:

- the object of evaluation is the activity of the organization (namely, a health care facility, medical practice, etc.) that provides medical services;
- evaluation of the service is related to the assessment of the quality of the process and technology of service provision;
- evaluation of healthcare professionals is carried out directly by the consumer;
- it is necessary to assess the time characteristics of the provision of medical services;
- evaluation of the service provided is carried out for compliance with the quality standards of service (conditions and culture of service);
- assessment and integration of subjective opinions of patients who received a single medical service should be ensured. (Mark, Coffey, 2001; Miller, 1996)

From the point of view of systematic and integrated approach, the competitive advantages of medical services are provided by legal, professional, technological, market, scientific, economic, organizational, psychological and other aspects, as well as their systematic interconnection.

The field of moderate competition in the health care market can be formed if a number of mandatory conditions are met, some of which are listed in Table 1.

Competitiveness management of a health care institution is considered as one of the aspects of management aimed at the formation, development and implementation of competitive advantages and ensuring the viability of a health care institution as a subject of economic competition. It requires a set of measures aimed at systematic improvement of 4P marketing.

Managing the competitiveness of a healthcare institution requires the following actions:

1. Diagnosis of the external competitive environment.
2. Assessment of the level of competitiveness of the health care institution in the market.
3. Development of a clear competitiveness management strategy based on the results of diagnostics and assessment.
4. Implementation of the formed strategy.
5. Continuous monitoring of the strategy implementation.
6. Improving the competitive advantages of the health care institution.

Thus, the creation and improvement of competitive advantages of health care institutions (which is the task of competitiveness management), the formation and development of competitiveness of medical services and medical labor is an effective tool for qualitative changes in industrial relations in health care itself and, most importantly, an absolutely necessary condition for the formation of modern marketing relations between the consumer (patient) and the doctor.

Table 1

Conditions for the formation of a competitive environment in the medical services market

Types and levels of competitiveness management	Conditions and possible measures
Patient-level	<ul style="list-style-type: none"> – The right to free choice of a doctor; – Ensuring free access of patients to health care facilities and medical practice; – Equal guaranteed access to the choice of health care providers; – Protection of patients' rights; – Highly developed health insurance system; – A system of quality control of medical care.
Physician-level	<ul style="list-style-type: none"> – Licensing of doctors; – Standardization of medical practice; – The right of health care institutions and private practitioners to earn and make a profit; – System of fixed contractual fees with prepayment; – Partnership rights of medical staff; – Open recruitment of medical staff; – Adoption of professional ethical standards.
Healthcare institution-level	<ul style="list-style-type: none"> – Accreditation of health care institutions; – Improving the quality of strategic management decisions; – Freedom of adaptation of functions and organizational structure of health care institutions to dynamic markets of medical services; – Independence of healthcare institutions to self-finance and operate independently; – A system of continuous staff training.
Scientific and other institutions-level	<ul style="list-style-type: none"> – Scientific substantiation of competitive models in the production and consumption of medical services; – Economic methods of management of health care institutions; – Flexibility of commercial investment in the healthcare sector; – Information openness of the health care market.
Administrative level	<ul style="list-style-type: none"> – Demonopolization of medical care; elimination of administrative division and vertical integration of health care institutions and services; – Privatization of health care institutions; – Integration of primary health care services; Implementation of optimal and functional solutions for the restructuring of primary health care institutions and services; – Opening of previously closed (departmental) healthcare institutions for all citizens.
State regulation-level	<ul style="list-style-type: none"> – Creation of legislative conditions for guarantees and incentives for the development of entrepreneurship, competition and restructuring of the health care sector; – Reorientation of new medical programs and projects from vertically coordinated institutions to the level of primary health care centers; – Regulation of the competitive environment in the markets of medical services; – System of targeted social guarantees in obtaining medical care by certain categories of the population; – Regulation of the quality and efficiency of services provided; – Professional training of personnel; – Evaluation of the economic efficiency of medical technologies.

Source: created by the authors

4. Tools for measuring competition and competitiveness of a healthcare institution

An important link in the management of competitiveness of any organization is the correct assessment of its level. When measuring competitiveness, a number of tasks are solved, namely: (a) establishing the state and peculiarities of increasing/loss of competitiveness; (b) identifying "problem" areas that negatively affect competitiveness; (c) identifying reserves for increasing competitiveness.

Two methodological approaches to the competitiveness are described to the literature:

- 1) operational efficiency;
- 2) strategic positioning.

The operational efficiency strategy is aimed at achieving results that significantly exceed the results of competitors engaged in similar activities.

Strategic positioning is aimed at carrying out activities that are fundamentally different from those of competitors or include alternative approaches to similar activities.

The ambiguity of existing methodological approaches to the definition of competitiveness in modern management theory determines the multiplicity of methods used to assess it.

All methods used to measure and assess competitiveness can be grouped into nine sectors. The first four of them are grouped in chronological order of appearance of approaches in the first half

of the XX century. Later, the theory and practice of strategic management led to the almost identical emergence of a number of methodological approaches to assessing competitiveness in the works of domestic and foreign scientists.

Therefore, the set of methods can be represented as follows:

1. Methods based on comparative advantage analysis.
2. Methods based on the theory of equilibrium of the firm and industry.
3. Methods based on the theory of effective competition.
4. Methods based on the theory of product quality.
5. Matrix methods for assessing competitiveness.
6. Complex methods (including integrated).
7. Method based on the multiplier theory.
8. Method of determining the position in the competition in terms of strategic potential of the enterprise.
9. Methods based on comparison with the standard (modification of complex methods using integral estimates).

Below are the most popular methods that can be used in healthcare.

S.W.O.T. analysis is a classic and widely accepted method of evaluating strategic planning and has found wide application in healthcare. This analysis is aimed at identifying the strengths and weaknesses, threats and opportunities of the organization. It consists of 4 stages: analysis of the internal (the main production process, personnel) and external (threats, opportunities) environments of the enterprise; entering the results into the SWOT matrix; assessment of opportunities and threats identified in the research process (on a 10-point scale); formulation of actions to maintain a competitive advantage. (Baker, 2001; Harris, McDaniel, 1993; Tompson, Strickland, 2000)

The obvious advantages of this method are easy adaptation to any area of the enterprise, the ability to freely choose the elements for analysis in accordance with the goals and use them for both operational control of the organization and strategic planning.

However, due to the subjectivity of the method, the reliability of the results depends entirely on the qualifications of the analyst, and the analysis is only a general goal without specifying measures to achieve it.

Thus, the competitiveness of a healthcare institution can be assessed in two ways:

- 1) in comparison with by-products (competitors);
- 2) within its internal environment.

In this approach, it is possible to use the "system of seven functions" by which the level of competitiveness is assessed: target, licensing, accreditation, deontological, economic, technological and performance functions (Fliasher, Bensussan, 2005).

The advantages of this approach include: (a) the use of objective indicators based on the assessment of specific parameters and conditions; (b) the possibility of assessing competitiveness with other organizations with a similar profile; (c) the possibility of assessing competitiveness within one health care facility. The disadvantages include the inability to compare public and private healthcare institutions.

Tompson and Strickland proposed to use indicators from a list of key factors of the organization's success of a certain industry, as well as the main advantages and disadvantages of competitors. The sum of these indicators forms a comprehensive indicator of the organization's competitiveness (Tompson, Strickland, 2000). Here the advantage of this approach is the ability to measure competitiveness directly relative to competitors in the industry. But the methodology does not take into account the specifics of budgetary and paid organizations, and there is no possibility to assess competitiveness within the organization itself.

Another approach used to measure the enterprises' competitiveness is the estimation of human resources. It is well known that human resources make a significant contribution to the efficiency of the health care system. Human resources are considered the main determinant of the quality and accessibility of health care and, in general, the competitiveness of health care institutions. In the strategy of improving the competitiveness of health care, the development of human resources in the direction of forming the intellectual capital of the organization and customer-oriented approach is of great importance.

The hierarchy analysis method, which is used in the process of competitiveness assessment, is based on the expert assessment of certain competitiveness criteria by the organization, which form pairwise comparison matrices. Competitiveness is determined both separately for each criterion and for the overall level based on all parameters. This method is both qualitative and quantitative, i.e. suitable for assessing several organizations, and allows for a hierarchical systematization of indicators. However, it should be noted that the method is rather subjective, as it is based on expert assessment and can be applied to a small number of entities and indicators (up to 9).

There is an approach, where five directions of evaluation of competitors of health care (sources and types of funding, level of healthcare institution, specialization, location and price segment) are developed. The four main criteria of competitiveness are: reputation of the health care institution, attention, speed of service, degree of differentiation of services. The proposed approach takes into account the peculiarities of the market of paid services, where the degree of patient satisfaction with the provided medical services is important.

It should be noted, however, that this approach does not take into account the competitiveness of health care, and the main criterion for the success of the organization is the level of satisfaction of the consumer of the service.

A. Smith, D. Riccardo, proposed an assessment of competitiveness from the standpoint of competitive advantage. Competitive advantages of health services are provided by market, legal, economic, organizational and other aspects (Porter, 1998). The methodology includes an inventory of factors affecting the competitiveness of the organization, the definition of indicators by which the impact of each factor is measured, and the comparison of competitors by the collected indicators. The disadvantage of such a model is the high risk of statistical error when the number of indicators increases.

Benchmarking is "the process of measuring products, services and processes against those of organisations that are leaders in one or more aspects of their activities". It can provide data on how a healthcare facility compares to similar organizations, even if they are in a different business or have a different customer (patient) group. It can also help identify areas, systems or processes that need improvement.

Thus, it can be argued that there are a large number of tools for assessing the competitiveness of a healthcare institution. Each manager can choose for himself the tool that is suitable for the given situation.

5. Conclusions

The existence of competition in the provision and consumption of medical services, as well as increasing the competitiveness of health care institutions and medical practices are particularly important for the further development of the national health care system in the context of globalization. Creating

conditions for competition in the healthcare system, launching mechanisms of civilized rivalry between doctors, and finally, managing the competitiveness of healthcare institutions and medical practices are the tasks without understanding and solving which qualitative changes in the current state of domestic healthcare are impossible.

Thus, the analysis of existing tools for assessing the competitiveness of health care institutions has shown a significant interest of researchers. This is due to the ongoing reform of the entire health care system and the active introduction of market mechanisms in the provision of health care services. However, it should be noted that currently there is no unified methodological approach to measuring competition and competitiveness that would take into account the specifics of the health care system and the scope of activities of the health care organization (types of medical care and services provided, consumer profiles, etc.).

Measuring competition and competitiveness is an important component of strategic management of health care institutions to understand the impact of market changes and policy initiatives in health care. Ongoing changes in the health care system promise to make it more important to understand the forces influencing competition, as well as the implications of competition for the provision and costs of health care services.

Further progress in the development of competitiveness management in health care is associated with the development of specific common tools for managing the competitive advantages of the organization and assessing its competitiveness.

Future scientific research of the authors should be aimed at studying the competitiveness strategies of health care institutions, as well as finding ways to improve their business activity.

References:

- Baker, L. C. (2001). Measuring competition in health care markets. *Services Research*, vol. 36 (no. 1, part II), pp. 223–251.
- Fuch, V. (1988). The competition: revolution in health care. *Health Affairs*, Summer, vol. 23, pp. 5–24.
- Greenberg, W. (1991). *Competition, Regulation and Rationing in Health Care*. Ann Arbor, Michigan, IL: Health Administration Press.
- Harris, I. C., & McDaniel, R. R. (1993). Untangling healthcare competition, health care managers must recognize the three-dimensional nature of competition. *Health Progress*, November, vol. 30, pp. 20–23.
- Mark, T. L., & Coffey, R. M. (2001). Studying the effects of health plan competition: are available data resources up to the task? *Health Services Research*, vol. 36 (no. 1, part II), pp. 253–275.
- Miller, R. H. (1996). Competition in the health system: good news and bad news. *Health Affairs*, Summer, vol. 15 (no. 2), pp. 312–320.
- Porter, M. E. (1998). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: The Free Press.
- Porter, M. E., & Teisberg, E. O. (2004). Redefining competition in health care. *Harvard Business Review*, vol. 82 (no. 6), pp. 65–72.

- Rivers, P. A., & Glover, S. H. (2008). Health care competition, strategic mission, and patient satisfaction: research model and propositions. *J Health Organ Manag*, vol. 22 (6), pp. 627–641. DOI: <https://doi.org/10.1108/14777260810916597>
- Teisberg, E. O., Porter, M. E., & Brown, G. B. (1994). Making competition in health care work, incentives throughout the health care system are so skewed that the normal rules of competition do not apply. *Harvard Business Review*, pp. 131–141.
- Porter, M. E. (2005). Konkurentsiia [Competition]. Moskva. (in Russian)
- Soltman, R. B., Busse, R., & Mossialos, E. (eds.) (2002). Regulirovanie predprinimatelskoi deyatel'nosti v sistemah zdavoohraneniya evropejskikh stran [Regulation of entrepreneurial activity in the health care systems of European countries]. Moskva. (in Russian)
- Tompson, A. A., & Striklend, A. Dzh. (2000). Strategicheskii menedzhment: kontseptsii i situatsii [Strategic management: concepts and situations]. Moskva. (in Russian)
- Fliasher, K., & Bensussan, B. (2005). Strategicheskii i konkurentnyi analiz. Metody i sredstva konkurentnogo analiza v biznese [Strategic and competitive analysis. Methods and tools of competitive analysis in business]. Moskva. (in Russian)

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