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**DEVELOPMENT OF THE SERVICES SECTOR BASED ON DIGITAL  
MARKETING TECHNOLOGIES (IN THE CASE OF THE HEALTHCARE  
SYSTEM)**

08.00.11 - Marketing

DISSERTATION  
prepared for the scientific degree of Doctor of Philosophy  
in Economic Sciences (PhD)

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Doctor of Economic Sciences, Professor

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## INTRODUCTION

**Topicality and necessity of the topic of dissertation.** In the global economy, significant changes are being made to improve the quality and convenience of patient care in the development of healthcare systems using digital marketing technologies. These changes include telemedicine services that serve areas far from urban and regional centers, digital content services that work specifically for each patient, and social media platforms used by healthcare institutions for promotional activities. Advanced digital tools such as social networks, search engine optimization (SEO), and online advertising have increased the accessibility of healthcare information for users. In addition, the World Health Organization (WHO) in its “Digital Health” Strategy for 2020–2025 places great emphasis on the integration of digital technologies to improve healthcare systems worldwide. The global digital healthcare market is forecast to reach approximately \$197.8 billion in 2025, with an expected annual growth rate of 6.88% from 2025 to 2029, reaching \$258.3 billion in 2029<sup>1</sup>. As that indicates that digital marketing technologies play a crucial role in improving the global healthcare system.

In the world, there being carried out several scientific researches aimed at the study and development of the problems of using the digital marketing technologies within healthcare systems. Particularly, these studies are focusing on exploring how digital marketing strategies can promote telehealth services, investigating the effectiveness of tailored digital content in improving patient education, examining the challenges of maintaining patient privacy and ethical standards in digital marketing practices within healthcare, how digital marketing strategies are utilized in healthcare to enhance patient engagement and address industry challenges and etc. Therefore, conducting the scientific research on the development of the healthcare system based digital marketing technologies is one of the topical issues.

The advancement of Uzbekistan’s healthcare system necessitates a comprehensive approach to digitalization and the establishment of favorable conditions for the population. However, as the observations show that implementing

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<sup>1</sup> Statista.com (2024) <https://www.statista.com/outlook/hmo/digital-health/worldwide>.

digital marketing technologies within Uzbekistan's healthcare system faces several challenges. For example, many healthcare facilities lack the necessary digital infrastructure, hindering the effective deployment of digital marketing strategies, strict regulations on medical advertising and patient data privacy limit the scope of digital marketing initiatives. Besides, the Decree of the President of the Republic of Uzbekistan No.PD-415 as of 28.12.2023 “On Additional Measures to Accelerate the Digitalization of the Healthcare System and the Introduction of Advanced Digital Technologies” outlines the measure to accelerate the digitalization of Uzbekistan's healthcare system and implement the advanced digital technologies in medical organizations. The integration of digital marketing strategies, particularly through online platforms, aligns with the broader objectives of this decree, contributing to the modernization of healthcare services in Uzbekistan. Effective implementation of these measures requires work out proposals and recommendations on the development of healthcare services based on digital marketing technologies.

This dissertation research to a certain extent serves to fulfill the tasks specified in the Decrees of the President of the Republic of Uzbekistan PD-60 as of January 28, 2022 “On the Development Strategy of the New Uzbekistan for 2022 — 2026<sup>2</sup>”, PD-415 as of December 12, 2023 “On Additional Measures to Accelerate the Digitalization of the Healthcare System and the Introduction of Advanced Digital Technologies”, PD-38 as of January 22, 2024 “On Additional Measures for Deepening Healthcare Reforms”, PD-140 as of May 1, 2023 “On Additional Measures to Digitalize the Healthcare System” as well as other normative and legal acts related to this area.

**Relevance of the research with the priority areas of science and technology development in the republic.** The current research is completed in accordance with the priority areas of the state program on the development of science and technology in the Republic of Uzbekistan I.”Spiritual-moral and

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<sup>2</sup> Decree of the President of the Republic of Uzbekistan dated January 28, 2022 No. PD-60 On the Development Strategy of New Uzbekistan for 2022-2026, <http://lex.uz/ru/docs/5841063>.

cultural-enlightenment of democratic and legal society, the establishment of innovative economy”.

**The degree of study of the problem.** Among the scientific literature devoted to the study of the economic meaning and essence of digitization, foreign scientists Rupert et al. <sup>3</sup>, Setoyama et al. <sup>4</sup>, Oh and Lee <sup>5</sup>, Lee and U <sup>6</sup>, Davis <sup>7</sup> and others in their scientific works on increasing the competitiveness of the organization on the basis of healthcare digitization, in the market. They proposed marketing strategies aimed at maintaining their position .

The scientific research from CIS countries such as A.L. Gaponenko, A.P. Pankrukhin, Yu.M. Bakhramov, V.V. Glukhov, G.L. Azoyev, V.I. Aleshnikova, I. Ansoff, E.P. Golubkov conducted scientific research on the development of marketing strategies aimed at increasing the competitiveness of enterprises and organizations <sup>8</sup>.

The general aspects of the use of digitization methods in the marketing activities of industrial organizations and Service Sector in Uzbekistan are discussed in the scientific research of A.Sh. Bekturodov, M.R. Boltabaev, M.A. Ikramov, A. Soliyev, M.A. Yusupov, M.S. Kasimova, Sh. Dj. Ergashkhodzhaeva, Z. Hakimov, U.U. Sharifkhodzhaev and L.T. Abdulkhalilova<sup>9</sup>.

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<sup>3</sup>Rupert, DJ, Moultrie, RR, Read, JG, Amoozegar, JB, Bornkessel, AS, Donoghue, AC, & Sullivan, HW (2014). Perceived healthcare provider reactions to patient and caregiver use of online health communities. *Patient Education and Counseling*, 96(3), 320–326.

<sup>4</sup>Setoyama, Y., Yamazaki, Y., & Namayama, K. (2011). Benefits of peer support in online Japanese breast cancer communities: Differences between lurkers and posters. *Journal of Medical Internet Research*, 13(4), e122. <https://doi.org/10.2196/jmir.1696>

<sup>5</sup>Oh, HJ, & Lee, B. (2012). The effect of computer-mediated social support in online communities on patient empowerment and doctor-patient communication. *Health Communication*, 27(1), 30–41.

<sup>6</sup>Lee, YC, & Wu, WL (2014). The effects of situated learning and health knowledge involvement on health communications. *Reproductive Health*, 11(1), 220–233.

<sup>7</sup>Davis, FD (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340.

<sup>8</sup> Gaponenko A. L., Pankrukhin A. P. Strategic management: Uchebnik. – Moscow: Omega - L, 2008. — 464 pages; Azoev G. L., Aleshnikova V. I. Tokarev B. E. Marketing: Essentials. – SPb.: Peter, 2018; Ansoff I. Strategic management. – Moscow: Ekonomika, 2009. – 331 p.; Classical management (electronic resource). Website: <http://www.hrm.ru>; Golubkov, E.P. Marketing for professionals: practical course: teacher and practical for bachelor's and master's degree / E. P. Golubkov. – Moscow: Izdatelstvo "Yurait" , 2022. - 474 p.; Bakhramov Yu.M., Glukhov V.V. financial management. Uchebnik dlya vuzov. 2-e izd. Standard tretego pokolenia. – SPb.: Peter, 2011. – 496 p.

<sup>9</sup> Bekturodov A.Sh. and others. Strategic Marketing: A Study Guide. - T.: TSUE, 2010.; Boltabaev M.R. Marketing strategy in the textile industry. Monograph . - T.: Science, 2004.; Soliev A. Marketing. - T.: Finance and economy. 2009. – 395 p.; Ikramov M.A., Abdulkhalilova L.T., Nabieva N.M. Marketing efforts. Study guide. - T.: TDIU, 2017 – 145 p. Ergashkhodzhaeva Sh.Dj., Kasimova M.S., Yusupov M.A. Marketing. - T.: Economy, 2018. - 361 pages; Ergashkhodzhaeva Sh.Dj. Strategic marketing. Textbook. - T.: Sano-standard, 2019. - 232 pages; Hakimov Z.A., Sharifkhodzhaev U.U. Interactive and digital marketing. Textbook. – T.:Economy, 2020. – 261 pages; Abdulkhalilova

However, the problems of increasing the level of competitiveness of local health system organizations based on digital marketing technologies have not been deeply studied in the above scientific researches. This situation requires the need to conduct scientific research in this area and determines the relevance of the research topic.

**Relevance of the research with the scientific research directions of higher education institution.** The topic of the dissertation research corresponds with the priority research areas of Tashkent State University of Economics conducted within the framework of the project IL-21101912 titled “Improvement of the scientific methodical and methodological bases of social economic support and development of the fundamental neighborhood (2023-2026)” in accordance with the scientific research plan of the Tashkent State University of Economics .

**Purpose of the research** is to work out proposals and recommendations on the development of healthcare services based on digital marketing technologies.

**Tasks of the research:**

to research the theoretical aspects of the use of digital marketing in the healthcare system;

to study the paradigms of using digital marketing in the healthcare system of the Republic of Uzbekistan;

advanced use of digitization in local health system organizations to propose suitable aspects for Uzbekistan based on the study of the experience of foreign countries;

to analyse the use of digital marketing activities of health system organizations;

to research the scientific and methodological bases of segmentation in the healthcare system of Uzbekistan;

to conduct an econometric analysis of the use of digital marketing technologies methods in increasing the competitiveness of the healthcare system;

to develop the ways to increase the competitiveness of healthcare system organizations based on digital marketing technologies;

to propose decision-making methods in the implementation of the use of digital marketing technologies in the healthcare system;

to develop forecast scenarios to improve the healthcare system of Uzbekistan until 2030;

to develop the proposals and recommendations on increasing the competitiveness of healthcare system organizations based on digital marketing technologies.

**Object of the research** is digital marketing activities of medical organizations under the Ministry of Health of the Republic of Uzbekistan.

**Subject of the research** is the organizational and economic relations that arise in the process of development of healthcare system organizations based on the use of digital marketing technologies.

**Methods of the research.** Statistical analysis, correlation-regression analysis, systematic analysis, (SEM) and chi-square, as well as questionnaire methods were used in the research process.

**Scientific novelties of the research.** The scientific novelty of the dissertation research includes the followings:

according to the methodological approach, the content of the concept of "digitalization" has been improved from the point of view of a set of methods and techniques aimed at identifying the possibilities of using them in the practice of the healthcare system through the search, comparison, experimentation, synthesis and evaluation of indicators of the performance of the healthcare system in order to optimize the processes of working with patients in healthcare organizations;

the proposal for making effective decision based on the criteria of "low" ( $R_i=0.3\%$ ), "medium" ( $R_i=0.7\%$ ) and "high" ( $R_i=0.9\%$ ) of the clinic system through the use of elements of digital marketing such as search through search engine optimization (SEO), contacting the hospital, accessing the clinic website and

contacting via mobile application, blogger advertising and social media advertising have been justified;

the proposal to increase the competitiveness of local healthcare institutions by organizing digital marketing activities of medical associations under the Ministry of Health of the Republic of Uzbekistan in ensuring the effectiveness of digital marketing research has been justified;

Forecast scenarios for the development of clinics until 2030 have been developed that interconnected with digital marketing based on econometric models of the system of state and private polyclinics affiliated with medical institutions in the healthcare system of the Republic of Uzbekistan.

**Practical results of the research** are as follows:

the need to use digitization to increase the competitiveness of health system organizations is justified;

the concept of using digitalization to increase the competitiveness of healthcare system organizations is proposed;

the orientation of the service of health system organizations to the needs of the population, pricing policy based on the local market is justified;

achievements and shortcomings of public and private organizations in the healthcare system are determined based on chi-square analysis;

a digitization process model was developed by studying the psychology of patients and their family members.

**Reliability of research results.** The reliability of the research results is determined by the fact that they are obtained from official sources of famous global information bases such as the National Statistics Committee of The Republic of Uzbekistan, the Ministry of Health of the Republic of Uzbekistan, Statista, statistical reports of organizations and other officially published practical data analysis.

**Scientific and practical significance of research results.** The scientific significance of the research results is that they can be used in the implementation of special scientific studies dedicated to the development of marketing strategies for the development of healthcare system organizations in the Republic of Uzbekistan,

increasing the competitiveness of organizations in the healthcare system based on digitization, conducting marketing research. explained.

The practical significance of the research results is determined by the fact that the developed scientific proposals and practical recommendations can be used in the development of a complex set of measures aimed at increasing the competitiveness of healthcare system organizations in the republic based on digitization. It is explained that the results of the research can be used in the preparation of training manuals and textbooks on the subjects "Marketing", "Strategic marketing" , and "Digital marketing".

**Implementation of research results.** The following results have been achieved, based on the scientific results developed to increase the competitiveness of healthcare institutions through the use of digital marketing:

according to the methodological approach, the content of the concept of "digitalization" has been improved from the point of view of a set of methods and techniques aimed at identifying the possibilities of using them in the practice of the healthcare system through the search, comparison, experimentation, synthesis and evaluation of indicators of the performance of the healthcare system in order to optimize the processes of working with patients in healthcare organizations was used in the activity of digital marketing of the medical organizations (Reference No. 02-28/27833 as of 28 November 2024, Reference No.01/1456 as of 1 July 2024 given by the Main Administration of Healthcare of Tashkent City). As a result of the implementation of the scientific novelty, the waiting time for patients in polyclinics under the Ministry of Healthcare has been reduced from 3-4 hours to 30 minutes;

the proposal for making effective decision based on the criteria of "low" ( $R_i=0.3\%$ ), "medium" ( $R_i=0.7\%$ ) and "high" ( $R_i=0.9\%$ ) of the clinic system through the use of elements of digital marketing such as search through search engine optimization (SEO), contacting the hospital, accessing the clinic website and contacting via mobile application, blogger advertising and social media advertising, was used in the activity of digital marketing of the medical organizations (Reference No. 02-28/27833 as of 28 November 2024, Reference No.01/1456 as of 1 July 2024

given by the Main Administration of Healthcare of Tashkent City). As a result of the implementation of the scientific novelty, the opportunity has been created to critically evaluate the activities of polyclinics under the Ministry of Health;

the proposal to increase the competitiveness of local healthcare institutions by organizing digital marketing activities of medical associations under the Ministry of Health of the Republic of Uzbekistan in ensuring the effectiveness of digital marketing research was used in the activity of digital marketing of the medical organizations (Reference No. 02-28/27833 as of 28 November 2024, Reference No.01/1456 as of 1 July 2024 given by the Main Administration of Healthcare of Tashkent City). As a result of the implementation of this scientific novelty, recommendations have been developed to create a competitive environment in polyclinics under the Ministry of Health;

Forecast scenarios for the development of clinics until 2030 have been developed that interconnected with digital marketing based on econometric models of the system of state and private polyclinics affiliated with medical institutions in the healthcare system of the Republic of Uzbekistan were used in the medical organizations in the healthcare system of the Republic of Uzbekistan (Reference No. 02-28/27833 as of 28 November 2024, Reference No.01/1456 as of 1 July 2024 given by the Main Administration of Healthcare of Tashkent City). This scientific novelty was used in the formation of a roadmap of measures under the Ministry of Health for the development of outpatient clinics until 2030.

**Approbation of research results.** The results of the dissertation were discussed in 3 international and 3 national scientific-practical conferences.

**Publication of research results.** A total of 13 works on the topic of the dissertation, including 4 articles were published including 2 in national and 2 in scientific journals recommended for publication of the main scientific results of doctoral dissertations of the Supreme Attestation Commission of the Republic of Uzbekistan, as well as 9 articles – in the proceedings of international and national scientific-practical conferences.

**Structure and volume of the dissertation.** The content of the dissertation consists of an introduction, 3 chapters, conclusion, list of used literature and appendices, and its volume is 141 pages.