



RAQAMLI MARKETING TEXNOLOGIYALARINING O'ZBEKISTONDA BEMORLAR QONIQISHINI OSHIRISH VA TIBBIY YORDAM KO'RSATISHGA TA'SIRINI BAHOLASHI: SWOT TAHLILIGA YONDASHUV

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Annotatsiya. Ushbu empirik tadqiqot hujjati raqamli marketing texnologiyalarining SWOT tahlili yondashuvidan foydalangan holda O'zbekistonda tibbiy yordam ko'rsatish va bemorlarning qoniqishiga potentsial ta'sirini o'rganadi. Raqamli marketing texnologiyalari global miqyosda sog'liqni saqlashda tobora ko'payib borayotganiga qaramay, ularning O'zbekistonda qo'llanilishi va ta'siri yetarlicha o'rganilmagan. Ushbu bo'shliqni bartaraf etish uchun tadqiqot raqamli savodxonlik va texnologiyalardan foydalanishni baholash uchun tibbiyot xodimlari va bemorlarning miqdoriy so'rovini o'tkazdi, shuningdek, amalga oshirishdagi to'siqlarni aniqlash uchun ekonometrik tahlil qildi. So'rov O'zbekistondagi tibbiyot xodimlari va bemorlarning raqamli savodxonligi pastligi va raqamli texnologiyalardan foydalanish imkoniyati cheklanganligini aniqladi. Ekonometrik tahlil raqamli savodxonlik, texnologiyadan foydalanish va moliyaviy resurslarni sog'liqni saqlash sohasiga raqamli marketing texnologiyalarini joriy etish yo'lidagi asosiy to'siqlar sifatida aniqladi. Bundan tashqari, tadqiqot O'zbekistonda sog'liqni saqlash sohasi va raqamli marketing texnologiyalarining kuchli, zaif tomonlari, imkoniyatlari va tahdidlarini aniqlash uchun tibbiyot xodimlari, siyosatchilar va bemorlar bilan suhbatlar orqali SWOT tahlilini o'tkazdi. Tahlillar shuni ko'rsatdiki, O'zbekistonda malakali tibbiyot mutaxassislari davlat tomonidan qo'llab-quvvatlanayotgan va dori vositalari ishlab chiqarish uchun tabiiy resurslar mavjud bo'lsa-da, moliyalashtirish, infratuzilma va tartibga solishning yetarli emasligi kabi muammolarga duch kelmoqda. Umuman olganda, tadqiqot O'zbekistonda sog'liqni saqlash sohasida raqamli marketing texnologiyalarining potentsial afzalliklari va muammolari haqida tushuncha beradi. Topilmalar raqamli marketing texnologiyalarini o'zlashtirish orqali sog'liqni saqlash xizmatlarini yaxshilash bo'yicha strategiyalarni ishlab chiqish va ularni amalga oshirish bilan bog'liq qiyinchiliklar va xatarlarni bartaraf etishda ma'lumot berishi mumkin.

Kalit so'zlar: raqamli marketing texnologiyalari, sog'liqni saqlash xizmati, bemor qoniqishi, O'zbekiston, kirish, bemor natijalari, to'siqlar.

ОЦЕНКА ВЛИЯНИЯ ТЕХНОЛОГИЙ ЦИФРОВОГО МАРКЕТИНГА НА УЛУЧШЕНИЕ УДОВЛЕТВОРЕННОСТИ ПАЦИЕНТОВ И ПРЕДОСТАВЛЕНИЕ МЕДИЦИНСКИХ УСЛУГ В УЗБЕКИСТАНЕ: ПОДХОД SWOT

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Аннотация. В данной исследовательской работе рассматривается потенциальное влияние технологий цифрового маркетинга на предоставление медицинских услуг и удовлетворенность пациентов в Узбекистане с использованием подхода SWOT. Несмотря на все более широкое применение цифровых маркетинговых технологий в медицине во всем мире, их использование и влияние в Узбекистане остаются малоизученными. Для заполнения этой пробелы в исследовании было проведено количественное исследование среди медицинских работников и пациентов для оценки цифровой грамотности и использования технологий, а также эконометрический анализ для выявления преград внедрения. Опрос показал низкий уровень цифровой грамотности и ограниченный доступ к цифровым технологиям среди медицинских работников и пациентов в Узбекистане. Эконометрический анализ выявил цифровую грамотность, доступ к технологиям и финансовые ресурсы в качестве основных преград для внедрения технологий цифрового маркетинга в сфере здравоохранения. Кроме того, в рамках исследования был проведен анализ SWOT с помощью интервью с медицинскими работниками, лицами, принимающими решения, и пациентами для выявления сильных и слабых сторон, возможностей и угроз в секторе здравоохранения и технологиях цифрового маркетинга в Узбекистане. Анализ показал, что, несмотря на наличие квалифицированных медицинских специалистов, государственной поддержки и природных ресурсов для производства лекарств, Узбекистан сталкивается с проблемами, такими как недостаточное финансирование, инфраструктура и регулирование. В целом, исследование предоставляет информацию о потенциальных преимуществах и проблемах технологий цифрового маркетинга в сфере здравоохранения в Узбекистане. Полученные результаты могут служить основой для разработки стратегий по улучшению медицинских услуг через внедрение технологий цифрового маркетинга при преодолении проблем и рисков, связанных с их использованием.

Ключевые слова: технологии цифрового маркетинга, предоставление медицинских услуг, удовлетворенность пациентов, Узбекистан, внедрение, результаты для пациента, преграды.

ASSESSING THE IMPACT OF DIGITAL MARKETING TECHNOLOGIES ON IMPROVING PATIENT SATISFACTION AND HEALTHCARE DELIVERY IN UZBEKISTAN: A SWOT ANALYSIS APPROACH

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Abstract. This empirical research paper examines the potential impact of digital marketing technologies on healthcare delivery and patient satisfaction in Uzbekistan, using a SWOT analysis approach. Despite the increasing adoption of digital marketing technologies in healthcare globally, their use and impact in Uzbekistan remain underexplored. To address this gap, the study conducted a quantitative survey of healthcare providers and patients to assess digital literacy and technology use, as well as an econometric analysis to identify barriers to implementation. The survey revealed low levels of digital literacy and limited access to digital technologies among healthcare providers and patients in Uzbekistan. The econometric analysis identified digital literacy, access to technology, and financial resources as the primary obstacles to the introduction of digital marketing technologies in the healthcare sector. In addition, the study conducted a SWOT analysis through interviews with healthcare providers, policy makers, and patients to identify strengths, weaknesses, opportunities, and threats of the healthcare sector and digital marketing technologies in Uzbekistan. The analysis revealed that while Uzbekistan has qualified medical professionals, state support, and natural resources for medicine production, it faces challenges such as inadequate financing, infrastructure, and regulation. Overall, the study provides insights into the potential benefits and challenges of digital marketing technologies in healthcare in Uzbekistan. The findings can inform the development of strategies to improve healthcare services through the adoption of digital marketing technologies while overcoming the challenges and risks associated with their implementation.

Keywords: Digital marketing technologies, Healthcare delivery, Patient satisfaction, Uzbekistan Adoption, Patient outcomes, Barriers

Introduction. Liu and Li (2019) determined that digital marketing technologies have the potential to transform healthcare delivery and improve patient satisfaction in Uzbekistan [1]. In recent years, the global healthcare industry has witnessed a significant increase in the adoption of these technologies, such as telemedicine, electronic health records, and online patient portals [1]. Rezaei and Sabouri (2021) further emphasized that these digital marketing technologies have been shown to improve patient outcomes, reduce costs, and increase access to healthcare services [2]. However, despite the government's efforts to promote their use, the implementation of digital marketing technologies in Uzbekistan's healthcare sector has been slow and fragmented [2].

The purpose of this empirical research paper is to assess the impact of digital marketing technologies on improving patient satisfaction and healthcare delivery in Uzbekistan. The paper uses a SWOT analysis approach to identify the strengths, weaknesses, opportunities, and threats of digital marketing technologies in the healthcare sector. The study also collects quantitative data by surveying healthcare providers and patients to assess digital literacy and the use of digital technologies.

The importance of this study lies in its potential to provide insight into the current state of Uzbekistan's healthcare sector and the potential benefits and challenges of digital marketing technologies. By identifying barriers to adoption and improving the legislative and regulatory framework, the study can inform the development of strategies to improve the effectiveness and efficiency of health services through the adoption of digital marketing technologies.

In the following sections, the literature review provides an overview of the current state of

digital marketing technologies in healthcare, while the methodology section describes the data collection process and analysis. The results section presents the findings of the study, followed by a discussion of the implications of the results and suggestions for future research.

Literature Review. Liu and Li have shown that digital marketing technologies have been increasingly adopted in the healthcare industry worldwide, with the potential to improve patient outcomes, enhance patient engagement, and reduce costs [1]. Rezaei and Sabouri have highlighted telemedicine, electronic health records (EHRs), mobile health (mHealth), and online patient portals as some of the digital marketing technologies that have been developed to enhance healthcare delivery [2].

Telemedicine, as described by the World Health Organization Nikuyko, involves the use of technology to provide remote medical care, consultations, and diagnoses [3]. It has been widely used to improve access to healthcare services, particularly for individuals residing in remote and underserved areas according to Bashshur et al., [4]. Moreover, studies have shown that telemedicine interventions have resulted in improved patient outcomes and satisfaction levels [4]. The implementation of Electronic Health Records (EHRs), as highlighted by Jha and DesRoches, aims to enhance healthcare delivery efficiency by enabling healthcare providers to access patient information and medical history electronically [5]. El-emam & Jonker 's research has indicated that EHRs have the potential to improve the quality of care, minimize errors, and enhance patient safety [6]. The concept of mHealth, as defined by the World Health Organization, encompasses the utilization of mobile

devices and applications to provide health-related information and services[7].

Over the years, mHealth has been instrumental in improving patient education, treatment adherence, and the monitoring and management of chronic conditions according to Fiordelli et al., [8]. Furthermore, patient portals, as discussed by Irizarry et al., refer to secure websites that enable patients to access their health information, communicate with healthcare providers, and schedule appointments online [9]. Through patient portals, individuals have reported increased engagement, satisfaction, and improved communication with their healthcare providers, according to Ammenwerth et al., [10].

Despite the potential benefits of digital marketing technologies, their adoption and impact in Uzbekistan's healthcare sector remain underexplored. The slow and fragmented adoption of these technologies in Uzbekistan can be attributed to several factors, including limited access to technology and digital literacy among healthcare providers and patients, as well as financial and regulatory barriers, according to Ahmed & Waseem, [11]. To overcome these barriers, it is essential to understand the strengths, weaknesses, opportunities, and threats of the healthcare sector and digital marketing technologies in Uzbekistan.

Several studies have examined the adoption and impact of digital marketing technologies in healthcare globally. A study by Cimperman, Brenčić, Trkman, and Stanonik explored the use of telemedicine in Slovenia and identified several factors that influenced its adoption, including the availability of funding and technology, regulatory and legal frameworks, and the involvement of healthcare providers and patients [12]. A systematic review by Lin, Mamykina, Lindtner, Delajoux, and Strub examined the impact of mHealth interventions on healthcare delivery and patient outcomes[13]. The review found that mHealth interventions had a positive impact on patient adherence to treatment, self-management of chronic conditions, and patient satisfaction. Another study by Lee and Poon investigated the impact of EHRs on healthcare delivery in the United States and found that EHRs improved the efficiency of healthcare delivery, reduced costs, and improved patient outcomes [14].

In summary, digital marketing technologies have the potential to transform healthcare delivery and improve patient satisfaction in Uzbekistan. However, their adoption and impact in the healthcare sector remain underexplored. Several studies have examined the adoption and impact of digital marketing technologies in healthcare globally, identifying factors that influence their adoption and impact. The literature provides insights into the potential benefits and challenges of digital marke-

ting technologies in healthcare, which can inform the development of strategies to improve healthcare services in Uzbekistan through their adoption.

Methodology

Participants. The study surveyed 500 healthcare providers and 500 patients from various healthcare facilities in Uzbekistan. Participants were selected using a convenience sampling method, and their participation was voluntary.

Data Collection. Data was collected through a self-administered questionnaire, which was designed based on the research objectives and reviewed by experts in the field. The questionnaire was translated into Uzbek and Russian, the two primary languages spoken in Uzbekistan. Data was collected between January and May 2023, with participants completing the survey online or in-person.

Measures. The questionnaire collected information on demographic characteristics, digital literacy, access to digital technologies, and barriers to the implementation of digital marketing technologies in healthcare. Digital literacy was assessed using a four-point scale: basic skills, intermediate skills, advanced skills, and no skills. Access to digital technologies was assessed based on four devices: high-speed internet, personal computer, smartphone, and tablet. Barriers to implementation were assessed using a five-point Likert scale, with responses ranging from strongly disagree to strongly agree.

Data Analysis. Data was analyzed using descriptive statistics and econometric analysis. Descriptive statistics were used to summarize the demographic characteristics, digital literacy, access to digital technologies, and barriers to implementation of digital marketing technologies. Econometric analysis was used to identify the significant barriers to the implementation of digital marketing technologies, using a logistic regression model. The independent variables in the model were digital literacy, access to technology, financial resources, and demographic characteristics. The dependent variable was the likelihood of implementing digital marketing technologies in healthcare.

SWOT Analysis. The SWOT analysis was conducted through semi-structured interviews with healthcare providers, policy makers, and patients. The interviews were conducted in-person or via video conferencing, recorded, and transcribed. The data was then analyzed thematically using a SWOT analysis framework, identifying the strengths, weaknesses, opportunities, and threats of the healthcare sector and digital marketing technologies in Uzbekistan.

Limitations. This study has some limitations that should be considered. The study used a convenience sampling method, which may not be representative of the entire population. The study only assessed digital literacy and access to digital tech-

nologies, and other factors may affect the implementation of digital marketing technologies. The study relied on self-reported data, which may be subject to social desirability bias. Finally, the SWOT analysis was based on the perceptions of a small number of participants and may not be generalizable to the entire population.

Results. Digital literacy and technology access were assessed through a survey of healthcare

providers and patients in Uzbekistan. The results (see Table 1) indicate that only 40% of healthcare professionals and 30% of patients have basic digital skills. Access to high-speed internet and smartphones is also limited, with only 25% of medical staff and 20% of patients having access to high-speed internet. These findings suggest that there is a significant digital divide in the healthcare sector of Uzbekistan.

Table 1.

Survey results: digital literacy and use of digital technologies in Uzbekistan

	% of Healthcare Providers	% of Patients
Level of digital literacy		
Basic skills	40	30
Intermediate skills	30	25
Advanced Skills	20	15
No skills	10	30
Introduction to digital technologies		
High-speed Internet	25	20
Personal computer	35	25
Smartphone	45	35
Tablet	20	15

Source: Developed by the author based on the answers given by the survey participants.

The results of the econometric analysis revealed that the level of digital literacy of medical workers and patients, access to digital technologies, and financial resources are the main obstacles to the introduction of digital marketing technologies in the healthcare sector of Uzbekistan. Specifically, the analysis showed that healthcare providers who have intermediate or advanced digital skills are more likely to adopt digital marketing technologies, while those with only basic or no digital skills are less likely to do so. Similarly, patients with access to

high-speed internet and smartphones are more likely to engage with digital health services.

Table 2 presents a SWOT analysis of Uzbekistan's healthcare sector and the potential benefits of digital marketing technologies. The analysis is based on qualitative data collected through interviews with healthcare providers, policymakers, and patients. The table shows the strengths, weaknesses, opportunities, and threats of healthcare and digital marketing technologies in Uzbekistan.

Table 2.

SWOT analysis of healthcare sector in Uzbekistan and digital marketing technologies

Strengths	Weaknesses
Qualified health professionals	Lack of medical personnel
State support for the development of the health sector	Inadequate infrastructure
Universities and scientific institutions specializing in health care	Lack of a patient-centered approach to medical care
Availability of natural resources for the production of medicines	Inadequate financing of the health sector
	Outdated medical equipment
Opportunities	Threats
Ability to implement digital marketing technologies for a patient-centric approach	Obsolete medical equipment
The potential to improve patient satisfaction through digital marketing technologies	Access to medical services is limited for rural areas
Opportunities to improve health care delivery through more efficient use of resources	High cost of implementing digital marketing technologies
The opportunity to reduce healthcare costs through digital marketing technologies	Inadequate regulatory framework for digital marketing technologies in healthcare

Source: Developed by the author based on the answers given by the survey participants.

The "Strengths" column highlights the positive aspects of healthcare and digital marketing technologies, including the availability of qualified medical professionals and the potential for cost-effective and efficient healthcare delivery through

digital marketing technologies. The "Weaknesses" column shows the problems facing the health sector, in particular, the shortage of medical personnel, outdated medical equipment, and inadequate infrastructure. It also highlights the lack of a patient-

centered approach to health care delivery, resulting in low patient satisfaction.

The "Opportunities" column focuses on the potential benefits of digital marketing technologies in healthcare, such as improving access to healthcare, improving patient engagement and communication, and personalized healthcare. The Threats column outlines potential risks and challenges associated with adopting digital marketing technologies, including the need for a reliable and secure technology infrastructure, potential privacy and security issues, and overreliance on technology.

In summary, the results suggest that there is a need for targeted efforts to improve the digital literacy of healthcare providers and patients and to increase access to digital technologies, particularly high-speed internet and smartphones, in Uzbekistan's healthcare sector. Such efforts may help to overcome the barriers to adoption of digital marketing technologies identified in the econometric analysis and capitalize on the opportunities presented by digital technologies to improve healthcare delivery. The SWOT analysis provides insight into the current state of Uzbekistan's healthcare sector and the potential benefits and challenges of digital marketing technologies. It can inform the development of strategies to improve the effectiveness and efficiency of health services through the adoption of digital marketing technologies, while overcoming the challenges and risks associated with their implementation.

Discussions and conclusion. Based on the study's findings, digital marketing technologies have not been fully adopted in Uzbekistan's health-care industry due to several barriers such as limited access to technology and digital literacy among healthcare providers and patients. The study identified significant barriers to the implementation of digital marketing technologies such as limited financial resources and inadequate regulatory frameworks. However, the study also identified strengths and opportunities such as improving patient outcomes and satisfaction and reducing healthcare costs.

The study recommends that policymakers and stakeholders should invest in improving access to technology and digital literacy among healthcare providers and patients. Furthermore, it is suggested that regulations and policies should be developed to facilitate the implementation of digital marketing technologies. Future research could explore other factors that may affect the implementation of digital marketing technologies and investigate the impact of digital marketing technologies on patient outcomes and satisfaction.

Overall, the study underscores the potential of digital marketing technologies to transform healthcare delivery and improve patient outcomes and satisfaction in Uzbekistan. However, more work needs to be done to overcome the existing barriers and capitalize on the strengths and opportunities identified in this study.

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