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DIGITAL TECHNOLOGIES IN MARKETING ACTIVITY DIAGNOSTICS

Introduction. *The article examines the interpretation of various foreign and domestic economic concepts of "marketing activity diagnostics" and "marketing digitalization". It is considered the leading software for solving marketing tasks and performing marketing activity diagnostics. It studies how using modern digital platforms ensures the adoption of sound strategic decisions that increase companies' competitiveness.*

The purpose of the article*. Consideration of interpretations by various foreign and domestic scientists of economic concepts: «diagnostics of marketing activities», «digitalization of marketing». Research into the impact of digital technologies on the diagnostics of companies' marketing activities. Disclosure of the main advantages of using digital technologies in marketing diagnostics.*

Metods*. The research used content analysis, comparative analysis, and logical generalization. The methodological basis of the research was theoretical provisions on marketing activities, scientific works of famous economists in the field of marketing, and digital technologies.*

Results*. The essence of the economic concept of «diagnostics of marketing activities» and «digitalization of marketing» is revealed. The study showed that using advanced technologies, such as web analytics, AI, Big Data, and CRM systems, provides companies with competitive advantages and makes informed management decisions. In the future, the role of digital technologies in marketing diagnostics will only decrease, requiring companies to be flexible, adaptable, and innovative in their approach to analyzing marketing processes.*

Conclusions*. Digital marketing analytics is a critical step for companies looking to improve their advertising and customer engagement. Innovative solutions such as Big Data analytics, marketing automation, and competitive intelligence tools enable companies to make strategically informed decisions and achieve better results.*

Key words: *marketing diagnostics; marketing; digital technologies; digitalization; marketing analysis.*

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ЦИФРОВІ ТЕХНОЛОГІЇ В ДІАГНОСТИЦІ МАРКЕТИНГОВОЇ ДІЯЛЬНОСТІ

Вступ. *У статті досліджено трактування різними закордонними та вітчизняними науковцями економічних понять «діагностика маркетингової діяльності», «цифровізація маркетингу». Розглянуто основні програмні забезпечення з допомогою якого можна розв'язати задачі маркетингу та проводити діагностування маркетингової діяльності. Досліджено, що використання сучасних цифрових платформ забезпечує прийняття обґрунтованих стратегічних рішень, що сприяють підвищенню конкурентоспроможності компаній.*

Мета*. Розгляд трактувань різними закордонними та вітчизняними науковцями економічних понять: «діагностика маркетингової діяльності», «цифровізація маркетингову». Дослідження впливу цифрових технологій на діагностику маркетингової діяльності компаній. Розкриття основних переваг від застосування цифрових технологій у маркетинговій діагностиці.*

Методи. *У ході дослідження використано методи контент-аналізу, порівняльного аналізу та логічного узагальнення. Методологічною основою дослідження є теоретичні положення з маркетингової діяльності, наукові праці відомих вчених-економістів у галузі маркетингу, цифрових технологій.*

Результати. Розкрито сутність економічного поняття «діагностика маркетингової діяльності», «цифровізація маркетингову». Дослідження показало, що використання передових технологій, таких як: вебаналітика, AI, Big Data та CRM-системи, забезпечує компаніям конкурентні переваги та допомагає приймати обґрунтовані управлінські рішення. У майбутньому роль цифрових технологій у маркетинговій діагностиці лише зростатиме, що вимагатиме від компаній гнучкості, адаптивності та інноваційного підходу до аналізу маркетингових процесів.

Висновки. Діагностика маркетингової діяльності за допомогою цифрових технологій є критично важливим етапом для компаній, які прагнуть підвищити ефективність своїх рекламних заходів та покращити взаємодію зі споживачами. Інноваційні рішення, такі як аналіз Big Data, автоматизація маркетингу та інструменти конкурентного аналізу, дозволяють компаніям приймати стратегічно обґрунтовані рішення та досягати кращих результатів у своїй діяльності.

Ключові слова: маркетингова діагностика; маркетинг; цифрові технології; цифровізація; маркетинговий аналіз.

Jel Classification: M 31; O 30

Introduction. Modern digital technologies play a key role in the development of marketing activities. They allow companies to effectively evaluate the results of their marketing activities, analyze consumer behavior and make informed management decisions. The involvement of digital tools creates new opportunities for diagnosing and evaluating marketing strategies and the impact of technologies on marketing processes; using digital technologies is not just a trend but a necessity for modern business. This allows you to increase the effectiveness of marketing activities, reduce costs and improve customer interaction. The use of advanced analytical tools helps companies remain competitive, adapt to dynamic market changes, which determines the relevance of the study.

Literature review. Many domestic and foreign scientists have dealt with the problems of forming effective marketing diagnostic algorithms and using digital technologies in marketing activities: L. Berry, D. Rogers, S. Kingsnorth, F. Kotler, L. Larka, Ya. Voytovych, M. Rudenko G. Oliynyk. and others. However, the issue of using digital technologies in the diagnostics of marketing activities at the current stage of society's development requires further research.

Purpose of the study. Consider the economic concepts of «diagnostics of marketing activities» and «digitalization of marketing». This is a survey of digital technologies' impact on marketing activities' diagnostics and an overview of the key advantages of using digital technologies in marketing diagnostics.

Materials and methods of the study. The methodological basis of the study is theoretical provisions on marketing activities, scientific works of well-known economists in the field of marketing, and digital technologies. To solve research problems, the methods of content analysis and comparative analysis (comparison of different approaches to the diagnostics of marketing activities using digital technologies) were used.

Research results. Marketing activity diagnostics are key aspects of effective business management. The diagnostics performed allow companies to assess the effectiveness of their marketing strategies, identify strengths and weaknesses, and find opportunities for improvement.

According to L. Larki [1] marketing diagnostics is the foundation of effective marketing activities of the enterprise. This interpretation of the term is modern in business conditions.

According to R. Shams, marketing diagnostics is an analysis of the company's ability to maintain competitive advantages in conditions of rapid market changes [2]. The author also considers «marketing diagnostics» a tool for identifying weaknesses in the marketing strategy.

Scientist M. Gilbert, marketing activity diagnostics, shows how the process of analysis and search allows more accurately assessing the effectiveness of campaigns and consumer reaction to the product [3]. The scientist emphasizes the use of big data for marketing diagnostics.

According to the recommendation of V. Koyuda and T. Myaka [4], enterprise marketing system diagnostics should be carried out using express diagnostics, fundamental and complex diagnostics, diagnostics based on the components of the enterprise marketing system and its results, forecasting by diagnostic objects, and selected diagnostic methods.

Scientists F. Kotler, H. Kartajaya, I. Setiawan, in his study «Marketing 4.0: Moving from Traditional to Digital» [5], shows current trends in marketing and technology that affect business development in the digital age. They analyze the features of digital consumer behavior, marketing personalization strategies, the use of social media and Internet technologies to promote products and services, as well as methods that will help brands maintain a competitive advantage in the era of digital transformation.

In his book «The Digital Transformation Playbook: Rethink Your Business for the Digital Age» [6], D. Rogers considers various aspects of digital transformation, including strategic planning, organizational culture, technological tools, and other key aspects.

Digital technologies expand the possibilities of diagnosing marketing activities, providing companies access to a large amount of data and analysis tools. Studying the impact of digital technologies on the diagnosis of marketing activities can help companies improve the effectiveness of their marketing strategies and interaction with the audience.

Marketing automation is a relatively new trend in the Internet space. Many marketers are not yet familiar with this concept, and even fewer specialists are able to implement it in real business. Routine tasks are automated using specialized programs and services that analyze customer behavior and offer individual solutions based on the data obtained [7]. The main goal of marketing process automation is to eliminate repetitive tasks and replace them with automated systems, which allows people to focus on more meaningful and intelligent aspects of work.

In the Concept of Development of the Digital Economy and Society of Ukraine, digitalization is defined as introducing digital technologies into various spheres of life: from human interaction to industrial processes, from household items to children's toys, clothing, etc. The use of digital technologies opens up new opportunities for conducting online marketing research and contributes to the informed adoption of marketing decisions.

According to G. Oliynyk, company digitalization goes far beyond the simple implementation of modern technologies or software. It encompasses profound transformations in the corporate governance system, accounting, corporate culture, external communications, the organization of production processes, working conditions, and approaches to training and advanced training of specialists [8].

Using digital technologies in modern marketing opens new opportunities for spreading information about a brand or product. For this purpose, all currently available information and electronic channels are involved, including television, the Internet, social networks, radio, and other online media. Special emphasis is placed on the potential of new media resources. A key feature is using the online environment to attract the audience's attention.

S. Kingsnorth's work «Digital marketing strategy: an integrated approach to online marketing» [9] considers various aspects of digital marketing, such as search engine optimization, e-commerce, social media, content marketing and others, and proposes an integrated approach.

Big Data technologies process large amounts of data and allow the analysis of terabytes of information in real time.

The Cloud Security Alliance (cloudsecurityalliance.org) is engaged in implementing effective methods for ensuring the security of cloud computing and training relevant IT specialists. In particular, the alliance has organized a working group on big data (Big Data Working Group), which aims to find scalable methods for protecting information and solving the problems of ensuring the confidentiality of big data [10].

Digitalization is a key condition for successful business, and the effective use of digital marketing is based on understanding the changes in promotion strategies caused by digital technologies and the need for enterprises to adapt to the rapid development of the digital environment. [11, p. 82]. We agree with the authors that digitalization plays a leading role in increasing the efficiency of a company's activities. We note that the use of digital technologies in marketing activities encourages the promotion of products, and the use of digital technologies opens up new opportunities for conducting online marketing research and contributes to more informed marketing decision-making.

The introduction of digital technologies, including the digitalization of marketing, is one of the key priorities of the state under martial law. As experts rightly emphasize, the country's competitiveness in the strategic future, or rather, a new technological order, will directly determine the level of digitalization [12].

The leading software for solving marketing tasks includes CRM systems, tools for data analysis and analytics, tools for marketing campaign automation (Marketing Automation), tools for content management

(CMS), tools for social media management (Social Media Management Tools), tools for search engine optimization (SEO), and tools for A/B testing.

Scientists S. Kobernyuk, V. Karpenko systematized the directions of digitalization of enterprise marketing according to the key areas of marketing activity:

– product policy (involvement of influencers, SEO, increasing the share of goods with digital technologies in the product range);

– pricing policy (creation of integrated client and corporate profiles, automation of transaction settlements and credit control functions);

– sales promotion (formation of virtual product sales channels, application of artificial intelligence in the development and implementation of sales policy);

– product positioning policy (creating digital platforms of the virtual environment of user interaction, virtualization of physical infrastructure IT systems and transition to service models, digital modeling of consumer behavior) [13, p. 207].

D. Dyachkov, O. Pleskach, and T. Oliynyk divided the types of digital marketing into those that were implemented from classical marketing and those that arose as a result of the development of the digital environment. They also grouped digital marketing tools into four groups—"smart" gadgets, Internet communications, digital television, and digital radio, each of which has its own set of tools [14].

The functional capabilities of modern CRM systems presented on the market usually cover the following aspects of information management within the framework of the implementation of the CRM interaction model: formation, maintenance and updating of the customer base; integration with IP telephony for simultaneous management of interactions with customers and the CRM system; setting up and using e-mail to record customer requests; use of cloud storage for storing and accessing the customer base; integration with the organization's website to ensure interactive communication and interaction with customers; synchronization with the institution's operating system to optimize workflows; collection and analysis of statistical data about customers and service quality, etc. [15].

The modern development of digital technologies significantly affects enterprises' diagnostics of marketing activities. Big data analysis tools, artificial intelligence, digital automation, and neural networks allow for a deeper study of consumer behavior, the effectiveness of advertising campaigns, and the competitive environment.

The main advantages of using digital technologies in marketing diagnostics include:

- CRM systems (implementation of effective management of customer interaction);
- Big Data and AI (implementing trend forecasting and personalization of marketing strategies);
- social networks and SMM analytics (assessing brand reputation and content effectiveness);
- marketing automation (email marketing, chatbots) (optimizing interaction with consumers);
- web analytics (Google Analytics, Hotjar) (assessing user behavior).

Digital technologies open up new horizons in diagnosing marketing activities. The use of modern tools allows you to increase the efficiency of business processes, respond faster to market changes, and provide the following advantages:

- speed of analysis - digital technologies allow you to receive up-to-date data in real-time;
- data accuracy - digital tools provide access to accurate and up-to-date data, which allows you to make informed decisions;
- forecast accuracy - the use of AI and Big Data reduces the level of error in marketing research;
- cost reduction - process automation helps reduce marketing research costs;
- personalization of marketing strategies - analysis of large data sets allows you to create targeted campaigns;
- use of sensors and cloud technologies for rapid collection and analysis of data in real-time;
- forecasting of consumer behavior - the use of artificial intelligence allows you to predict future trends in the market;
- reduction of time for assessment and diagnostics (use of artificial intelligence, machine learning algorithms, and big data analytics for rapid information processing);

- flexibility and adaptability – the ability to quickly adjust marketing strategies based on the data obtained, etc.

Discussion. The use of digital technologies in marketing diagnostics causes much debate among scientists and practitioners. On the one hand, modern tools such as artificial intelligence and Big Data significantly improve analysis accuracy and allow for a deeper understanding of consumer behavior. However, particular challenges relate to the ethical aspects of data use, maintaining confidentiality, and the need to train specialists to use digital technologies effectively.

It is also worth noting that the effectiveness of marketing diagnostics depends on the right combination of automated algorithms and expert analysis. Automation allows for rapid data collection, but strategic planning requires human intervention and analytical thinking. The critical question is how to avoid excessive dependence on algorithms and ensure their correctness in constant market changes.

Conclusions and prospects for further research. Thus, digital technology diagnostics of marketing activities is an essential tool for modern business. It allows you to assess the effectiveness of marketing strategies, identify trends, and adapt marketing activities to market changes. Advanced technologies, such as web analytics, AI, Big Data, and CRM systems, provide companies with competitive advantages and help them make informed management decisions. In the future, the role of digital technologies in marketing diagnostics will only grow, requiring companies to be flexible, adaptable, and innovative in their approach to analyzing marketing processes.

Prospects for further research include an in-depth study of the impact of digital technologies on consumer behavior and improving ethical standards in data collection and use. In addition, it is essential to explore the possibilities of integrating new technologies, such as blockchain, into marketing analytics processes.

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