

THE ROLE OF ARTIFICIAL INTELLIGENCE IN THE TRANSFORMATION OF MARKETING COMMUNICATIONS

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Abstract

In the modern digital era, artificial intelligence (AI) is emerging as a major driver of innovation in various fields, including marketing. The development of AI technologies is transforming traditional marketing approaches by providing new opportunities for personalization, automation, and analysis of large volumes of data. This allows companies not only to optimize their campaigns, but also to create deeper connections with consumers, adapting to their needs and preferences in real time. Despite the significant advantages, integrating AI into marketing requires overcoming a number of challenges, including ethical issues, personal data protection, and the need for changes in organizational structures. This article examines the role of artificial intelligence in digital marketing, its key applications, and its potential to shape the future of the industry.

Keywords: *artificial intelligence; digital marketing; personalization; automation; data analytics.*

JEL Codes: *M20, M21, M29*

Introduction

It is inevitable that the artificial intelligence (AI) is not the future anymore, but it is the present. It has been an object of interest since 1950s (Seth, 2024). However, scientific research on the topic, software products development and applications of the AI in everyday life have been taking a significant share. The Artificial Intelligence Index Report 2024 draws the attention to the fact that software products related to AI have been

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increasing significantly since 2011 – from 845 to 1.8 million in 2023 (Maslej et al., 2024) Various applications of AI find their place in different area including communication, visualization, education, medicine, research, economy, business, etc. AI is becoming one of the factors for competitiveness of the companies, but it should be taken into consideration that even concerning the introduction of information and communication technologies (ICTs) the enterprises are at very different stage of development. We believe that examination of the AI's potential in the business should be a constant process as the AI itself is something in a process of evolution. Thus, currently every examination of AI's role in the entrepreneurship is an up-to-date topic. AI is not just a trend it seems that its utilization can lead to significant transformation of business and economy on global level. (Soni, Sharma, Singh, & Kapoor, 2020)

AI in Business and in Marketing in particular

There is an enormous quantity of literature on the topic of AI in last years. Some of the studies can be classified based on the area of implementation of AI in business (Heath, 2023; Alareeni & Elgedawy, 2024a; Alareeni & Elgedawy, 2024b) and others according to the studied region (Horák, J & Turková, 2023; Alareeni & Elgedawy, 2024a; Alareeni & Elgedawy, 2024b). Fields such as accounting, sales, marketing, and cybersecurity are just a few examples of where its potential can be seen (Kempton, 2024). As for the marketing in particular, some of the possible applications are related to managing customers, improving customer services, suggestion of new products, audiences segmentation, customers' satisfaction identification, etc. (Bharadiya, Thomas, & Ahmed, 2023)

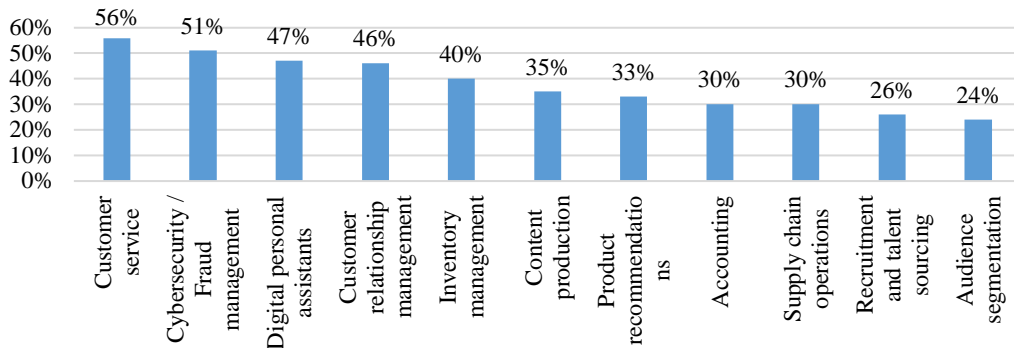
Some authors divide the AI impacts into first-order and second-order effects (Enholm, Papagiannidis, & Mikalef, 2022; Tairov, Stefanova, Aleksandrova & Aleksandrov, 2024). The first-order effects associated with the use of AI concern the changes it brings to organizational processes, while the second-order effects relate to the impact on the organization itself, stemming from the application of AI in various operations. (Enholm, Papagiannidis & Mikalef, 2022)

However, AI application depends on a number of factors and the general context is related to trust. Similarly to its importance in interpersonal relations the trustworthiness of AI is a basic requirement for its introduction. Without trust, we are left with uncertainty, suspicion, hesitation, and fear, as its fragile nature makes it difficult, if not impossible, to restore once broken (Bell, 2024). Furthermore, AI utilization in companies is related to ethical issues regarding privacy and even security challenges. This requires introduction of regulation concerning data protection, cyber security, information and limitations on AI use. The most effective and efficient application of AI is a supporting tool, mostly when analyzing vast amount of data concerning the business activities (Uzialko, 2024; Zhao,

Richards & Kumar). Furthermore, the constant improvement and even evolution of AI leads to precision of classification and forecasting when analyzing data without the so-called guided learning (Chui, Manyika & Miremadi, 2018).

In 2023 Forbes Advisor (Hann & Watts, 2023) published a study on the application of AI in business as it has positive impact on efficiency, time and costs. 600 companies participated in the survey and some of their results are presented on the following figures.

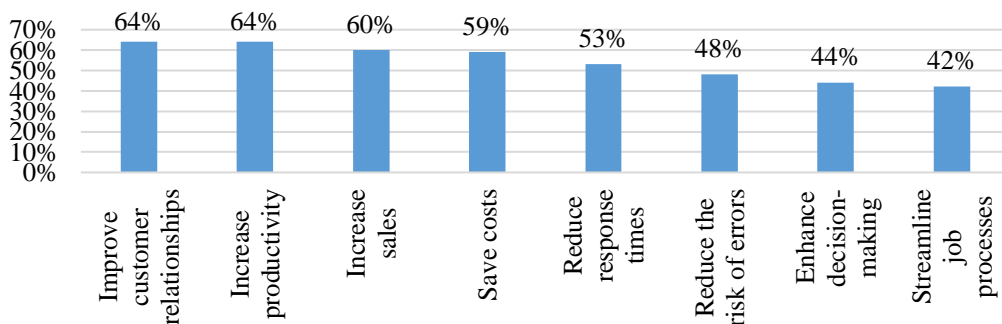
Figure no. 1 Top Ways Business Owners Use Artificial Intelligence



Source: Hann, K. & Watts, R. (2023) How Businesses Are Using Artificial Intelligence In 2024, <https://www.forbes.com/advisor/business/software/ai-in-business/>

Figure 1 illustrates the main areas in which businesses are implementing artificial intelligence. The greatest emphasis is placed on automation, improving customer relationships and data analysis, which shows the broad application of AI in business process optimization.

Figure no. 2 The Positive Impact Business Owners Expect from AI

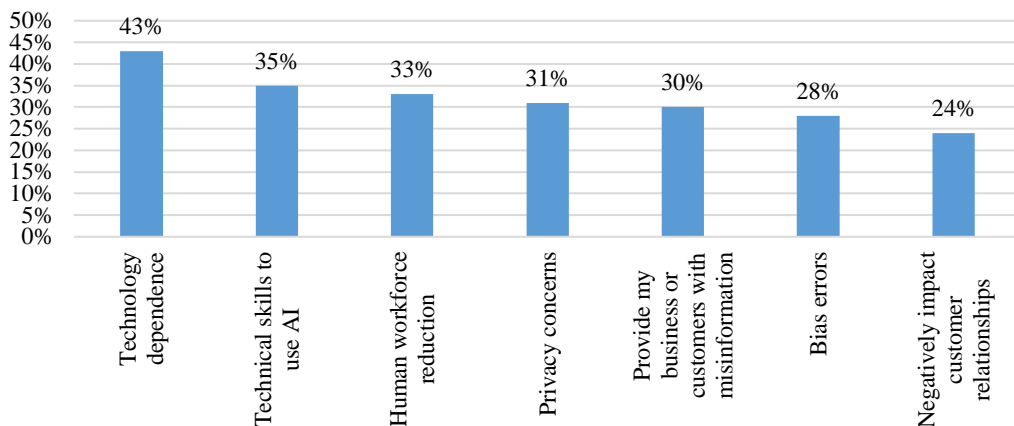


Source: Hann, K. & Watts, R. (2023) How Businesses Are Using Artificial Intelligence In 2024, <https://www.forbes.com/advisor/business/software/ai-in-business/>

As can be seen on Figure 2, the expected benefits of using artificial intelligence in business cover a wide range. The most frequently noted are increased efficiency, reduced operating costs and improved accuracy of decision-making.

From the analysis of the presented figures, it is clear that the predominant responses in this study are focused on the field of marketing, with a special emphasis on customer relationship management. This trend highlights the importance of marketing strategies for engaging and retaining customers in the context of the modern business environment. The choice of marketing as the main focus reflects the need for personalized approaches and effective use of tools that help understand consumer needs and create long-term relationships with customers. In this regard, the results highlight the critical role of marketing initiatives for business competitiveness and for increasing customer satisfaction in a dynamic market.

Figure no. 3 Business Owner's Concerns of Using Artificial Intelligence

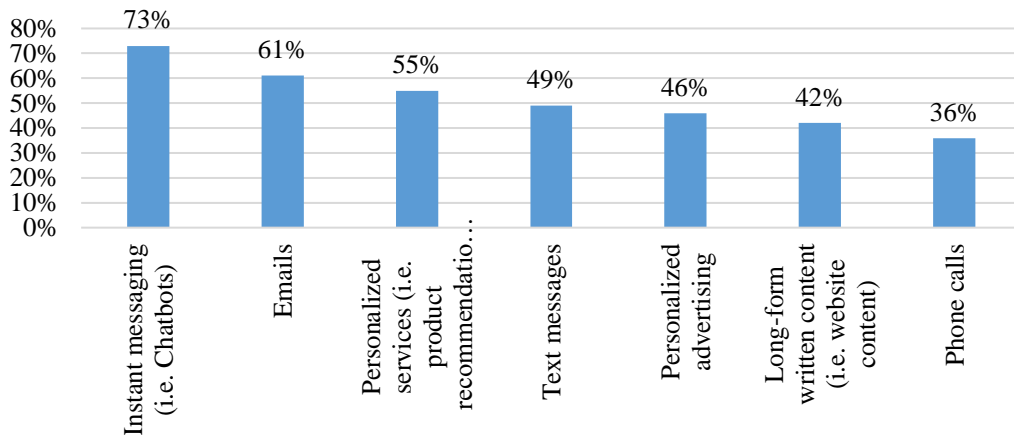


Source: Hann, K. & Watts, R. (2023) How Businesses Are Using Artificial Intelligence In 2024, <https://www.forbes.com/advisor/business/software/ai-in-business/>

Any innovation, including the implementation of artificial intelligence (AI) in business, is associated not only with expectations of improvements, but also with a number of concerns that may limit the speed and scale of its implementation (Figure 3). The most common concerns focus on cybersecurity issues, which include potential risks of data misuse, breaches in information protection and increased vulnerability of business processes (European Commission, 2024a). In addition, ethical aspects of the use of AI are causing serious debates, such as questions about the transparency of algorithms, discriminatory practices and the liability for decision-making by automated systems

(European Parliament, 2022). In addition, the lack of trust in new technologies is proving to be a key barrier to their widespread adoption. This distrust often stems from insufficient awareness about the functionality and safety of AI, as well as the lack of standard regulations to ensure the reliability of these technologies (European Commission, 2024b). Thus, despite the potential of AI to transform business processes, these concerns require attention and active action from developers, businesses, and regulators to minimize risks and facilitate the adaptation of innovations into practice.

Figure no. 4 Ways AI is Improving the Customer Experience



Source: Hann, K. & Watts, R. (2023) How Businesses Are Using Artificial Intelligence In 2024, <https://www.forbes.com/advisor/business/software/ai-in-business/>

The examined literature definitely demonstrates that one of the areas, in which AI can improve the functioning of the companies is the marketing (Alareeni & Elgedawy, 2024a; Alareeni & Elgedawy, 2024b). First of all, it is the relationships with the customer (Hann & Watts, 2023; Correira & Venciute, 2024), and they can be improved by analyzing the customers behavior (including social media), making predictions and suggesting personalized (Abraham & Edelman, 2024) approaches. AI can test different approaches, make predictions and suggest the most effective ones, making the digital marketing more successful (Gupta & Katoch, 2023). Another effect of the AI concerning the competitiveness of the companies in the contemporary circumstances is related to the sustainable consumption (Khan & Mahmood, 2024; Dimitrova, Ilieva & Angelova, 2022).

Alongside with our traditional literature review, we decided to ask ChatGPT for top five competitive advantages, which AI gives to the business. According to it they are enhanced decision-making, improved customer experience and personalization,

operational efficiency and automation, better risk management and fraud detection, innovation and product development. As concerns the marketing ChatGPT suggests that AI can be a competitive advantage in the following areas: personalized customer experiences, predictive analytics for targeted campaigns, dynamic pricing strategies, automated customer interactions with chatbots, enhanced content creation and curation, social media listening and sentiment analysis, optimized ad targeting and spending, customer retention and loyalty programs. According to the AI itself “Using AI in these ways enables businesses to reach the right audiences, personalize interactions, improve efficiency, and adapt to market changes swiftly. Together, these capabilities create a significant competitive advantage by maximizing marketing impact and enhancing customer satisfaction”. (OpenAI, 2024)

The role of AI in digital marketing

In the modern business world, entrepreneurs are faced with the complex task of developing effective marketing strategies that reach target audiences and generate leads. Their main goal is to achieve results through innovative and effective approaches, but they often face limitations related to the availability of resources and time. (Coonecto, 2023) In this context, artificial intelligence (AI) plays a transformative role, providing powerful tools to address these challenges and optimize marketing processes. Algorithms increasingly manage and control communication and interaction processes. (Gentsch, 2019, p.81) In marketing automation, the algorithm derives its suggestions according to what the user has performed as an action in the past. (Mueller&Massaron, 2018, p.134) Modern consumers are technologically savvy and constantly looking for new suggestions and innovative solutions. The emergence of the digital market has fundamentally transformed business, challenging marketing to adapt its approaches to changing consumer habits. This includes developing creative strategies for reaching audiences and effectively managing customer relationships. In addition, marketing is increasingly taking advantage of the consumer potential to co-develop solutions and implement automation in sales processes. (Stavrova et al., 2021)

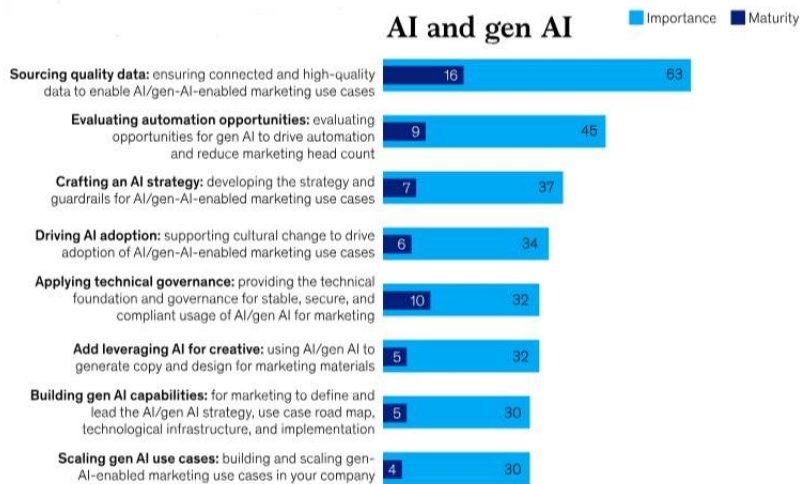
Personalization is the process of adapting marketing messages, products, and services to individual needs, preferences, and attitudes based on the digital footprints left by consumers. As Gartner (2023) notes, “Artificial intelligence will allow us to create highly personalized experiences for each customer, using data about their behavior and preferences”. By using artificial intelligence, personalization reaches a high level of accuracy and efficiency by analyzing vast amounts of data in real time and offering appropriate solutions to personal expectations. By analyzing large volumes of data, AI can identify specific patterns and trends, which leads to more effective marketing strategies

(Brill, Munoz, & Miller, 2019, p.1401). AI’s ability to process information from various sources such as pop-ups, website visits, and social networks allows for a more detailed profile of each customer, allowing companies to make more precise offers that are tailored to the individual needs of customers. (Gupta&Khan, 2024, p.5)

As we mentioned, AI offers products and services that are based on previous interactions and customer behavior. For example, platforms such as Amazon and Netflix use such systems to provide personalized offers to their users. (Brill et al., 2019, p. 1405) Thanks to AI, platforms adapt the content of sites, emails and advertisements depending on the preferences and interests of users, which leads to higher engagement and customer satisfaction. (Senyapar & Nurgul, 2024, p. 10)

According to a McKinsey & Company survey of 100 marketing leaders in North America and Europe looking for opportunities to drive growth, businesses are currently navigating complex and expansive environments and need to adopt a more connected and adaptive way of working. Special attention is paid to marketing technology, which is related to powering and accelerating initiatives through detailed, data-driven, and personalized campaigns. Respondents see the AI as the new answer to increasing productivity and speed, as well as increasing content creation and campaign execution. (McKinsey & Company, 2024)

Figure no. 5 Importance and maturity of AI and generative AI (gen AI) capabilities, % of marketing leaders



Source: McKinley&Company. (2024). Connecting for growth: A makeover for your marketing operating model, Retrieved November 16, 2024, from <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/connecting-for-growth-a-makeover-for-your-marketing-operating-model>

Figure 5 shows the perception and application of artificial intelligence (AI) and next-generation AI in marketing strategies. The data analysis shows that their importance for achieving company growth is highly appreciated. However, the pace of implementation is slow. This shows that companies, even if they understand the potential of AI, are still in the early stages of integrating it into their marketing activities. The biggest advantages that respondents point to are that it provides high-quality data, which is the basis for any successful AI strategy. They also see the great potential of AI for automating routine tasks and optimizing processes. Developing a clear and well-defined strategy is key to the successful implementation of AI. During the process of implementing full business digitalization, it is essential to restructure the organizational management framework and design or adapt a new business model tailored to the companies' unique characteristics. (Zavrazhnyi, K., 2020, p.74)

According to Coonecto (2023), AI is a key player in digital marketing for businesses. They refer to the main advantages that AI provides, which are the possibilities for *automation*: increased productivity; reduced human errors; resource optimization; better data management and improved customer service. Another important emphasis is placed on *creating content* with artificial intelligence, which is an innovation in digital marketing for small businesses. In addition to content generation, more and more companies are using the *opportunity to combine video content and artificial intelligence in marketing*. Another important advantage is the *possibility of optimizing paid ads* with artificial intelligence, which will increase the return on investment. A special place is also given to ChatGPT in GOOGLE Ads/PPC: for optimizing and personalizing advertising campaigns. *Competitive analysis* is also important for successful business, and in modern conditions this is possible by gaining an advantage through business intelligence provided by artificial intelligence.

Trends in digital marketing communications

According to recent forecasts, the global digital advertising and marketing market will reach a value of \$786.2 billion by 2026, which represents a significant growth compared to the current level of the industry. This rapid growth is the result of the increasing importance of digital platforms in the modern business environment, as well as innovations in technology that offer new opportunities for engaging with consumers and optimizing marketing strategies. (GlobeNewswire, 2022)

Reasons for the growing importance of digital advertising

- *The shift to digital*: With the rise of internet usage and mobile technologies, traditional advertising formats are beginning to give way to digital platforms, while consumers are spending more time online, creating new opportunities for marketers.

According to statistics, over 60% of global advertising spending will be directed to digital channels by 2026 (GlobalData, 2023).

- *Consumer focus on personalization:* With the development of AI and machine learning, advertisers can analyze user data and offer personalized marketing messages, leading to greater engagement and better results from advertising campaigns. Content personalization has been shown to increase purchases by up to 20% in digital channels (Criteo, 2023).

- *The expansion of mobile marketing:* Mobile platforms and applications are becoming increasingly important channels for reaching consumers, with more than 50% of advertising spending expected to be directed to mobile devices by 2024 (Forrester, 2023).

Role of Social Media in Digital Advertising

Social media is playing a leading role in the growing importance of digital marketing. Forecasts show that advertising spending on social platforms such as Facebook, Instagram, and TikTok will grow significantly in the coming years, with TikTok establishing itself as a key advertising platform. The ability to target specific audiences and the high level of engagement of users on social media are major factors leading to increased advertising spending (Statista, 2023).

Forecasted growth trends in the global digital advertising market

Video advertising and mobile platforms: With the increasing use of mobile devices and video content, video advertising is predicted to grow by about 25% by 2026. Platforms such as YouTube and TikTok will continue to gather large audiences and establish themselves as major channels for video advertising (eMarketer, 2023).

Voice technologies and advertising: With the development of voice assistants such as Amazon Alexa and Google Assistant, advertising integrated into these platforms is expected to grow by 20% annually over the next 5 years. This will open up new opportunities for interaction with consumers (GlobalData, 2023).

Artificial intelligence and automation: AI technologies will continue to play a central role in digital marketing, enabling automation of advertising campaigns and better personalization of content. Marketing automation is expected to grow by 18% over the next 5 years (Forrester, 2023).

Regional differences and global growth

While digital advertising will continue to grow globally, the largest growth is expected in the Asia-Pacific region, where internet penetration in emerging markets such as India and China continues to grow. According to forecasts, these regions will see an increase of over 30% in digital advertising spending by 2026 (GlobalData, 2023). Europe and North America are expected to see steady growth, with significant investments in new technologies such as voice assistants and personalized ad formats.

Conclusion and Recommendations

Artificial intelligence (AI) has been playing a key role in the transformation of digital marketing by providing innovative tools for automation, personalization and analysis of large volumes of data. AI-based technologies allow companies to create personalized marketing strategies that improve user experience and increase campaign effectiveness. Despite significant benefits, the implementation of AI is accompanied by a number of challenges, including issues of privacy, ethical aspects and lack of trust in new technologies. Nevertheless, companies that successfully integrate AI into their business models achieve competitive advantage through faster decision-making, resource optimization and greater productivity. With forecasts of significant growth in digital marketing fueled by AI, it is clear that this technology will be an integral part of the future of marketing, providing innovative opportunities to reach and engage audiences in a dynamic business environment.

REFERENCES

- Abraham, M., & Edelman, D. C. (2024). *Personalized: Customer strategy in the age of AI*. Harvard Business Review Press. ISBN: 978-1647826277.
- Alareeni, B., & Elgedawy, I. (Eds.). (2024a). *AI and business, and innovation research: Understanding the potential and risks of AI for modern enterprises*. Springer Cham. <https://doi.org/10.1007/978-3-031-42085-6>. ISBN: 978-3-031-42084-9.
- Alareeni, B., & Elgedawy, I. (Eds.). (2024b). *Opportunities and risks in AI for business development (Volume 1)*. Springer Cham. <https://doi.org/10.1007/978-3-031-65203-5>. ISBN: 978-3-031-65202-8.
- Ammanath, B. (2022). *Trustworthy AI: A business guide for navigating trust and ethics in AI*. Wiley. ISBN: 978-1-119-86792-0.
- Bell, E. (2024). How AI is used in business. *Investopedia*. Retrieved from <https://www.investopedia.com/how-ai-is-used-in-business-8611256>.
- Bharadiya, J. P., Thomas, R. K., & Ahmed, F. (2023). Rise of artificial intelligence in business and industry. *Journal of Engineering Research and Reports*, 25(3), 85–103. <https://doi.org/10.9734/jerr/2023/v25i3893>.
- Brill, T. M., Munoz, L., & Miller, R. J. (2019). Siri, Alexa, and other digital assistants: A study of customer satisfaction with artificial intelligence applications. *Journal of Marketing Management*, 35(15-16), 1401-1436. <https://doi.org/10.1080/0267257X.2019.1687571>

- Chui, M., Manyika, J., & Miremadi, M. (2018). What AI can and can't do (yet) for your business. *McKinsey Quarterly*. Retrieved from <https://www.mckinsey.com/capabilities/quantumblack/our-insights/what-ai-can-and-cant-do-yet-for-your-business>.
- Coonecto. (2023). Umni strategii za uspeh na malkia biznes: Izkustveniyat intelekt v digitalnia marketing, Retrieved October 15, 2024, from <https://coonecto.com/izpolzvane-na-izkustvenia-intelekt-za-digitalen-marketing/>
- Correia, R., & Venciute, D. (2024). *AI innovation in services marketing*. IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-2153-9>. ISBN: 9798369321539.
- Criteo. (2023). Why you need an always-on marketing strategy for customer acquisition and retention. Retrieved from <https://www.criteo.com/blog/always-on-acquisition-retention/>
- Dimitrova, T., Ilieva, I., & Angelova, M. (2022). Exploring factors affecting sustainable consumption behaviour. *Administrative Sciences*, 12(4), 155. <https://doi.org/10.3390/admsci12040155>.
- eMarketer. (2023). Social video ad spend increases, but growth rates stall. Retrieved from <https://www.emarketer.com/content/social-video-ad-spend-increases-growth-rates-stall>
- Enholm, I. M., Papagiannidis, E., Mikalef, P., et al. (2022). Artificial intelligence and business value: A literature review. *Information Systems Frontiers*, 24, 1709–1734. <https://doi.org/10.1007/s10796-021-10186-w>.
- European Commission. (2024a). *Cybersecurity policies*. Digital Strategy. Retrieved November 16, 2024, from <https://digital-strategy.ec.europa.eu/bg/policies/cybersecurity-policies>
- European Commission. (2024b). *Excellence and trust in artificial intelligence*. Retrieved November 16, 2024, from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/excellence-and-trust-artificial-intelligence_bg
- European Parliament. (2022). *Data protection and cybersecurity: AI challenges*. Retrieved November 16, 2024, from https://www.europarl.europa.eu/pdfs/news/expert/2022/1/story/20220120STO21428/20220120STO21428_bg.pdf
- Forrester. (2016). Forrester data: Mobile advertising forecast, 2016 to 2021 (US). Retrieved from <https://www.forrester.com/report/forrester-data-mobile-advertising-forecast-2016-to-2021-us/RES134005>
- Gartner. (2023). *Top 10 Strategic Technology Trends for 2023*. <https://www.gartner.com/en/articles/gartner-top-10-strategic-technology-trends-for-2023>
- Gentsch, P. (2019). Conversational AI: How (Chat)Bots Will Reshape the Digital Experience. In: *AI in Marketing, Sales and Service*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-89957-2_4
- GlobalData. (2021). Global advertising. Retrieved from <https://www.globaldata.com/reports/global-advertising1/>

- GlobeNewswire. (2022, May 4). *Global digital advertising and marketing market to reach \$786.2 billion by 2026*. GlobeNewswire. Retrieved from <https://www.globenewswire.com/news-release/2022/05/04/2435674/0/en/Global-Digital-Advertising-and-Marketing-Market-to-Reach-786-2-Billion-by-2026.html>
- Gupta, R., & Katoch, H. (2023). Role of artificial intelligence in business management. *International Journal for Multidimensional Research Perspectives*, 1(3).
- Gupta, Y., & Khan, F. M. (2024). Role of artificial intelligence in customer engagement: A systematic review and future research directions. *Journal of Modelling in Management*, 19(2), 345-367. <https://doi.org/10.1108/JM2-01-2023-0016>
- Heath, D. R. (2023). All in on AI: How smart companies win big with artificial intelligence (Authored by Thomas H. Davenport & Nitin Mittal). *Harvard Business Review Press*, 109 pp. <https://doi.org/10.1080/15228053.2023.2228675>.
- Horák, J., & Turková, M. (2023). Using artificial intelligence as business opportunities on the market: An overview. *SHS Web of Conferences*, 160, 01012. <https://doi.org/10.1051/shsconf/202316001012>.
- Kempton, B. (2024). 10 ways to use AI in business in 2024. *Upwork*. Retrieved from <https://www.upwork.com/resources/how-is-ai-used-in-business>.
- Khan, M. M. A., & Mahmood, D. H. (2024). Sustainable consumption and digital era: A review and research agenda. *Migration Letters*, 21(S8), 890–901. <https://doi.org/10.59670/ml.v21iS8.9449>.
- Maslej, N., et al. (2024). *Artificial Intelligence Index Report 2024*. Stanford Institute for Human-Centered Artificial Intelligence. <https://doi.org/10.48550/arXiv.2405.19522>.
- McKinley&Company. (2024). Connecting for growth: A makeover for your marketing operating model, Retrieved November 16, 2024, from <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/connecting-for-growth-a-makeover-for-your-marketing-operating-model>
- Mueller, J., L. Massaron. (2018). *Artificial Intelligence For Dummies*, John Wiley & Son, Inc.
- OpenAI. (2024). ChatGPT responses on AI applications in business and marketing competitiveness. Retrieved November 11, 2024, from ChatGPT platform.
- Senyapar, D., & Nurgul, H. (2024). Artificial Intelligence in Marketing Communication: A Comprehensive Exploration of the Integration and Impact of AI. *Technium Social Sciences Journal*, 34(1), 112-125. <https://doi.org/10.47577/technium.v34i1.6325>
- Seth, N. (2024). *Mastering the data paradox: Key to winning in the AI age*. Penguin Business. ISBN: 978-0143465522.

- Soni, N., Sharma, E. K., Singh, N., & Kapoor, A. (2020). Artificial intelligence in business: From research and innovation to market deployment. *Procedia Computer Science*, 167, 2200–2210. <https://doi.org/10.1016/j.procs.2020.03.272>.
- Statista. (2023). Digital advertising - worldwide. Retrieved from <https://www.statista.com/outlook/dmo/digital-advertising/worldwide>
- Stavrova, E., D. Zlateva, L. Pinelova (2021). The digital transformation in the service of business. *Economics and management*, 18 (1), https://em.swu.bg/images/SpisanieIkonomikaupload/SpisanieIkonomika2021/THE_DIGITAL_TRANSFORMATION_IN_THE_SERVICE_OF_BUSINESS.pdf
- Tairov, I., Stefanova, N., Aleksandrova, A., & Aleksandrov, M. (2024). Review of AI-driven solutions in business value and operational efficiency. *Economics Ecology Socium*, 8, 55–66.
- Uzialko, A. (2024). How artificial intelligence will transform businesses. *Business News Daily*. Retrieved from <https://www.businessnewsdaily.com/9402-artificial-intelligence-business-trends.html>.
- Zavrazhnyi, K. (2020). Areas for improvement of business models of industrial enterprises in the conditions of digital transformations, *Entrepreneurship*, 8(1), Retrieved from https://ep.swu.bg/images/pdfarticles/2020/Entrepreneurship_1_2020full_text.pdf
- Zhao, J., Richards, J., & Kumar, V. V. (2024). *Emerging advancements in AI and big data technologies in business and society*. IGI Global. <https://doi.org/10.4018/979-8-3693-0683-3>. ISBN: 9798369306833.