# Generative Artificial Intelligence For Digital Marketing: Insights and Antecedents - A Systematic Literature Review

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#### **Abstract**

Background: The rapid advancement of artificial intelligence (AI) has revolutionized digital marketing practices, enabling more personalized, efficient, and data-driven strategies. Within this evolving landscape, generative AI stands out by creating entirely new concepts, content, and designs from previously learned patterns. Despite its potential, the current extent of generative AI's integration into digital marketing and its practical implications remain underexplored.

Aim: This systematic literature review seeks to examine the insights and antecedents of the generative artificial intelligence transforming the digital marketing industry. Determine the important elements impacting the adoption and deployment of generative artificial intelligence in digital marketing

Methods: Utilizing systematic literature review methodology and adhering to the PRISMA framework, twenty scholarly publications were selected based on predefined inclusion and exclusion criteria through PICOC framework.

Results/Findings: The findings indicate that while generative AI-driven marketing applications are still emerging, they demonstrate the capacity to improve content personalization, automate creative processes, and refine customer interactions. However, uncertainties persist regarding scalability, data privacy, algorithmic transparency, and ethical considerations.

Conclusion: Generative AI shows promise in reshaping digital marketing strategies. Addressing current limitations can lead to more responsible, innovative applications.

Implication: Insights from this review can guide practitioners and researchers in developing robust frameworks, governance models, and educational initiatives that optimize the adoption of generative AI and ultimately enhance marketing outcomes.

**Keywords:** Generative AI, digital marketing, content creation, consumer engagement, customising user experiences.

#### Introduction

Adopting cutting-edge technologies is crucial for being competitive in digital marketing (Reis & Melão, 2023). The field of generative AI is currently expanding rapidly, exceeding even its own projections from a few years ago in terms of capabilities such as content creation and personalized experiences (Ooi et al., 2023). Generative AI creates new things. It generates text, photos, videos, and other media using cutting-edge machine learning algorithms (Bandi et al., 2023). Generative AI is one of the fastest-growing fields of technology today, with features like content creation and personalized experiences that have

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continued to outperform what was ever believed to be feasible just a few years ago. Generative AI is a branch of artificial intelligence that aims to produce new concepts and goods. It does this by employing state-of-the-art machine learning algorithms to generate a variety of media, such as text, images, and videos. Researchers could accomplish the aforementioned by searching for significant factors in big specimen data and technological advancement that are impacting how marketers plan, communicate with customers, and deliver interesting, customized experiences (Lv, 2023). Yang et al. (2024), affirmed that the use of generative artificial intelligence in digital marketing takes place when consumer demand is very high. Generative AI in digital marketing is timed to align with periods of high consumer demand. Today's consumers expect quick, relevant, and tailored information across a wide range of channels. Marketers can produce customized content on a massive scale and disseminate their advertising campaigns extensively thanks to generative AI (Chintalapati & Pandey, 2021).

Artificial intelligence (AI) allows marketers to mass-produce personalized content, launch ad campaigns that can be fine-tuned in real-time based on user feedback, and integrate chatbots and virtual assistants through algorithms to streamline customer interactions (Kumar et al., 2024). Because this would automate the tedious parts and free up marketers to focus on the new strategic jobs, efficiency would increase. Students and professionals in the field of digital marketing would do well to maintain a constant vigilance on the development of generative AI due to the field's growing importance in this space. According to Cheng et al. (2022), incorporating generative AI into marketing strategy can help companies improve customer engagement and interaction in a data-driven economy. When writing ad copy for online advertising platforms, especially for social media and search ads, advertisers should focus on the call to action, the landing page they link to, and the rhetorical context (Hocutt, 2024). The most it has accomplished so far is to offer a high-level summary of generative AI's function in the advertising industry. Generative AI has had significant growth and development, to the point that it is now widely integrated into online advertising systems (Abrokwah-Larbi, 2023). The application of generative AI in digital marketing is still in its formative stages, despite the field's notable growth. According to recent studies (Osadchaya et al., 2024; Rana et al., 2024; Mariani & Dwivedi, 2024), people are becoming more interested in the ways that this technology might alter marketing strategies. According to research by Barış (2020) and Gupta et al. (2024), generative AI has the potential to transform marketing by making it more successful, efficient, and innovative in addressing certain audiences. However, there is a clear gap in research regarding the utilization of generative AI to meet the increasing need for instant and tailored client interactions, despite the significant advances made in these domains. The majority of the existing research on generative AI in marketing has been on its far-reaching effects, such as how it will change marketing strategies and tactics as a whole. The increasing demand for tailored and instantaneous engagement from consumers has led to a dearth of in-depth research into how generative AI may meet this demand.

#### Research Gap

Unprecedented possibilities for automating and customizing digital marketing initiatives have been brought about by the development of generative artificial intelligence (AI) technologies, such as OpenAI's GPT-3 (Sætra, 2023). Although early research has looked at the technical uses of generative AI in marketing tasks like data analysis, customer engagement, and content creation (Low et al., 2020), there is still a lot to learn about how these technologies will completely change the digital marketing sector. In particular, little study has been done on the wider effects of generative AI adoption on market dynamics, industry practices, and marketers' professional duties (Olson et al., 2021). The potential for generative AI to reshape strategic decision-making processes, change consumer behavior and trust, and need new skill sets from marketing professionals is frequently overlooked in the research now in publication (Mogaji et al., 2020). Furthermore, in the context of digital marketing, certain ethical issues are not sufficiently examined, such as biases in AI-generated content and transparency concerns (Adam et al., 2020). In order to gain insight into future industry trajectories and the professional competencies needed in an AI-driven era, it is imperative that thorough studies be conducted that examine how the integration of generative AI will change the digital marketing landscape and impact marketers.

# **Research Objective**

- 1. To examine the insights and antecedents of the generative artificial intelligence transform the digital marketing industry.
- 2. Determine the important elements impacting the adoption and deployment of generative artificial intelligence in digital marketing.

#### Literature review

#### **Utilizations of Generative Artificial Intelligence**

A growing body of literature on generative AI's use to digital marketing attests to the industry's growing fascination with incorporating cutting-edge AI methods into advertising campaigns. Generative AI has been the subject of substantial study because to the profound effect it can have on personalizing user experiences. One major development in digital marketing is AI's capacity to tailor content generation to user preferences (Bag et al., 2021). assert that the most important advancement in digital marketing is AI's ability to customize content creation to user preferences (Behera et al., 2019). GPT models and other generative AI systems can produce promotional content, including blog entries, social media updates, and advertisements. According to Soni (2023), marketers may save time and money by automating the creation of large amounts of content. However, because of worries about its uniqueness and quality, the study discovered that AI-generated material still need human interaction. Another important area where this technology can be useful is in the creation of tailored, customer-specific content. AI-driven personalization has been shown to increase customer engagement and conversion rates (Whig et al., 2024; Chen et al., 2021).

Numerous studies have shown that material produced by artificial intelligence (AI), such as tailored emails, product recommendations, and interactive website content, significantly increases consumer satisfaction and loyalty (Gao et al., 2023; Kumar et al., 2024). Another use of generative AI is customer journey mapping and optimization (Bilgram & Laarmann, 2023). We can use machine learning to sift through massive amounts of customer data, forecast their behavior, and figure out the best times and locations to deliver

them tailored messages. Studies have shown that artificial intelligence (AI) can predict what customers will do (Gkikas & Theodoridis, 2021; Herhausen et al., 2020). By utilizing these models, marketing tactics may be adjusted to better meet the needs of clients at each phase of their journey.

Artificial intelligence's capacity to swiftly produce several ad variations and assess their efficacy has transformed digital advertising. By creating multiple iterations of creative content and evaluating their efficacy, the study by Anantrasirichai and Bull (2021) explores the potential of artificial intelligence (AI) to enhance advertising. Prentice et al. (2020), discovered that AI-driven A/B testing greatly enhanced the performance and return on investment (ROI) of advertisements. The potential of employing generative AI to preserve a consistent brand voice across several platforms is another area of research The potential of AI-generated stories to enhance brand storytelling activities is assessed by Dwivedi et al. (2020). The capacity of artificial intelligence (AI) to produce content that adheres to a company's desired tone and voice is a significant advantage for maintaining brand consistency.

#### **Digital Marketing**

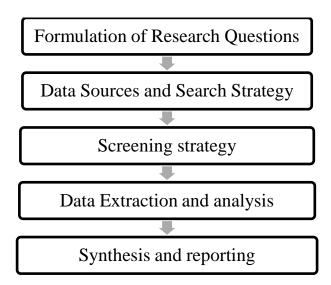
As social media, online platforms, and mobile devices have become more commonplace, digital marketing has become a crucial component of modern corporate strategy (Saura et al., 2020). The researchers (Faruk et al., 2021) go into some detail to explain how digital marketing has evolved over time. Nowadays, a lot of people use social media and other digital platforms for investigation, learning, and, of course, buying. Because of this shift, digital marketing is getting an excessive amount of the advertising spend. This illustrates how digital marketing is increasingly being incorporated into businesses' entire marketing strategies. Marketers are responding to this shift by directing a significant amount of their advertising budget toward digital marketing, as noted by Melović et al. (2020). It draws attention to how crucial digital marketing is now to businesses' overall marketing plans (Luangrath et al., 2021).

Matta et al. (2020) emphasis search engine optimization and marketing. A firm must use search engine optimization (SEO) if it wants more consumers to notice its online goods and services when they search (Olson et al., 2021). Customer searches are more likely to include terms relating to their needs than specific company names, so it is imperative that businesses work to improve their search engine rankings. According to Prasad and Chandrika (2022), SEO is a subcategory of digital marketing that looks into how search engines work and what consumers enter into them to get particular types of content, The primary search results from well-known search engines like Yahoo, Google, and Bing will be shown on websites together with other media formats like videos or local listings based on the search engine's evaluation of user relevancy (Fatima, 2020). In their digital marketing study, (Dwivedi et al., 2020) look at social media sites such as Instagram, Twitter, and Facebook. Marketers are singing the praises of social media marketing for its many benefits, including more customer engagement, stronger brand communities, and more user-generated content. A research by Chun et al. (2021) looked at how social media analytics may be used to gauge campaign efficacy, sentiment, and engagement. By purposefully producing and sharing useful, relevant content, content marketing seeks to draw in and keep consumers (Terho et al., 2022). Digital marketing companies are becoming more and more significant in the development of digital content marketing (Lopes & Casais, 2022; Wang et al., 2022).

Its long-term goal is to increase sales by fostering brand-friendly connections, trust, and engagement with prospective consumers on digital platforms. According to an analysis of the role and effectiveness of contemporary digital marketing tactics and technologies across various marketing domains, the new marketing paradigm depends on closely monitoring the customer-business interaction to uncover every detail about the consumer, including their unique characteristics, needs, and preferences (Nuseir et al., 2023). The digital potential, threats, and tactics of electronic marketing are all examined (Jaas, 2022). Online advertising ranks high among the most effective strategies for reaching a wide demographic. When it relates to targeting a large audience, e-marketing is among the best and most efficient methods. The study conducted by Hsu and Lin (2022) highlighted that e-marketing has its advantages, but it also has significant drawbacks that require more attention in order to mitigate the negative effects on customer trust, service adoption, and digital communication culture

# Systematic review Methodology, data and research questions

The study employs a systematic review methodical approach to examine pertinent prior research on the function of the generative artificial intelligence transforming the digital marketing sector (Newman & Gough, 2019). Determining the research question, creating a search strategy, screening studies, evaluating the quality of the studies, extracting and analyzing data, and reporting the results are all steps in a systematic review process, as shown in figure 1 (Nikolaev, 2024). According to Xiao and Watson (2017), this methodology guarantees a thorough examination of the pertinent literature in order to successfully answer the research question by adhering to an organized and exacting approach. This section provides a thorough explanation of each stage, detailing the techniques used to guarantee the review's validity and dependability.



**Figure 1**: Systematic literature review process (Conceptual framework) **Source**: Adapted from Newman and gough(2019); Nikolaev(2024)

#### Formulation of Research Questions Using the PICOC Framework

To ensure a targeted and thorough examination of the effects of generative artificial intelligence (AI) on the digital marketing sector and the variables affecting its use, the research questions were methodically developed utilizing the PICOC framework (Davies, 2011), which is a very powerful framework for determining the research scope. The PICOC framework, which stands for Population/Problem (P), Intervention (I), Comparison (C), Outcome (O), and Context (C), offered a methodical way to specify the study's parameters and make sure it was in line with its goals (Nikolaev, 2024).

- P (Population/Problem): Digital marketing industry and marketing professionals.
- I (Intervention): Implementation of generative artificial intelligence technologies.
  - C (Comparison): Traditional marketing practices without generative AI.
  - (Outcome): Changes in industry practices and the impact on marketers.
  - C (Context): Various organizational settings and market environments

Using this PICOC framework, the research questions were formulated as follows:

- 1. How will the digital marketing industry change as a result of generative AI's implementation, and how will marketers eventually be influenced by these changes?
- 2. What are the key factors influencing the adoption and implementation of generative artificial intelligence in digital marketing?

The study methodically examines the complex changes brought about by generative AI in the digital marketing sector and offers a sophisticated comprehension of its effects on marketers by employing this PICOC structure. This methodology guarantees a thorough examination that tackles the recognized research void and offers significant perspectives to scholars and business professionals.

#### **Data Sources and Search Strategy**

The first and most crucial step in the data collection procedure is choosing appropriate keywords and phrases to systematically gather relevant papers pertaining to the specific research topic. The researcher compiled currently published articles between 2019 and 2024 and publications on several facets of implementing generative AI in the realm of digital marketing from databases like ScienceDirect, ResearchGate, MDPI, and SAGE Open. The aforementioned process was implemented by utilizing a sequence of keywords, such as "generative AI", "digital marketing", "chatbots", "content creation", "customer engagement", "advertising campaigns", and "customizing user experiences". As a result, the writers were able to do more targeted research by using these combinations of phrases in titles, keywords, and abstracts.

#### **Screening strategy**

To find relevant studies, a methodical screening procedure was used. Initially, the titles and abstracts of the articles were evaluated to see if they would be relevant to the research issue. In order to be considered for this review, the studies had to fulfill the following requirements: (1) they had to be published in English, (2) they had to address the significance of digital marketing in comparison to traditional marketing, (3) they had to address issues related to digital marketing, and (4) they had to be focused on digital marketing. The review did not include any studies that did not fit these requirements. To ascertain whether the chosen papers from the first screening were appropriate for inclusion in the systematic review, their complete texts were carefully examined.

#### **Data Extraction and analysis**

The process of screening scientific literature in the current investigation was impacted by the use of the PRISMA statement, a widely regarded and comprehensive framework for performing meta-analyses and systemic reviews. Following the initial search, titles and abstracts were evaluated to find possibly pertinent papers, and duplicates were eliminated. After then, the whole texts of the chosen studies were obtained and thoroughly examined. Author names, the year of publication, the study design, the sample size, the main findings, and the conclusions were among the data that was taken out of the studies and put into a spreadsheet. To detect recurring themes, trends, and important conclusions about the impact of generative artificial intelligence (AI) on digital marketing, the extracted data was examined.

#### **Descriptive analysis**

The **Descriptive analysis used** the PRISMA framework, for conducting metaanalyses and systemic reviews, as depicted in Figure 2, which identified 20 articles of literature were deemed suitable for this research review.

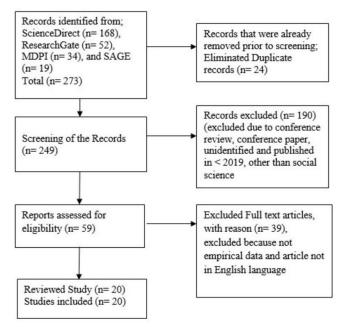


Figure 2. Literature screening approach

In the first stage, 273 articles were taken from various databases with the sole intention of conducting a systematic literature review, as demonstrated by the flow diagram in figure 1. A total of 168 articles from ScienceDirect, 52 articles from ResearchGate, 34 articles from MDPI, and 19 articles from SAGE were considered for inclusion in this study. In order to ensure that the articles would be of the highest possible quality and up to date, the researchers adhered to stringent standards for review. Following the initial screening, a total of 273 articles were discovered that had 24 duplicate items deleted from consideration. After that, an additional 190 papers were excluded from the compilation for a variety of reasons. A few of the works that were excluded in this category were either published prior to the year 2019 or did not relate to the field of social sciences. A number of individuals lacked unambiguous identification. An additional component of it consisted of reviews, conference papers, and publications that were not named. A comprehensive evaluation of eligibility was the following phase, which included a meticulous examination of 59 papers. A total of 39 of the submissions were rejected because they did not contain any common themes, patterns, and key findings related to how generative artificial intelligence (AI) affects digital marketing. After going through a thorough and methodical screening process, 20 articles were deemed suitable for inclusion in the review. Using these criteria, the review was carried out in a methodical manner.

# **Findings**

Due of its ability to decrease the amount of human work required to generate marketing materials, the application of generative artificial intelligence in digital marketing has attracted a lot of attention. With the help of AI technologies, businesses can now effortlessly create high-quality marketing content (videos, audio, and pictures) for several platforms. In this part, we will examine the content with an eye on evaluating generative AI's role in digital marketing. The research findings will mainly center on digital marketing strategies that use GAI, with the hopes of improving efficiency, encouraging creativity, and increasing engagement with the intended audience.

#### Generative AI's Reshaping of Digital Marketing and Its Influence on Marketers

In their research, Kumar et al. (2024) found six important marketing facets that artificial intelligence may have a big impact on. These areas cover a wide range of topics, such as improved customer experience, automated procedures, performance tracking, ethical issues, and prospects for growth via AI application. Marketers can now tailor campaigns, make strategic decisions, and operate with remarkable precision owing to artificial intelligence. This is all thanks to the enhanced data and tools that AI has made available. ChatGPT is a popular AI model in the field of digital marketing (Adam et al., 2020; Soni, 2023). The reason for this is that it is meant to be used in conversation. Businesses have a fantastic tool at their disposal for creating advertising campaigns and engaging with consumers. According to (Rivas & Zhao, 2023), Generative Artificial intelligence has created a lot of excitement and expectation, mostly due to its potential for usage in a variety of sectors and its significant improvements over similar previous technologies (Bag et al., 2021).

According to recent research, the tactical and procedural aspects of digital marketing operations are being drastically altered by the adoption of generative artificial intelligence (AI) technology. Traditionally, rule-based campaign methods, manual content creation, and traditional segmentation have been the mainstays of digital marketing operations. On the other hand, generative AI has emerged to facilitate automated decision-making, increased personalization, and more sophisticated content production (Behera et al., 2019). To improve the efficiency and coherence of marketing campaigns, generative AI systems, for instance, can generate personalized advertising text, graphical elements, and interactive scripts on a large scale after being trained on vast and varied data repositories (Chen et al., 2021).

Recent advances in generative artificial intelligence (AI) technologies have had a substantial impact on the responsibilities, skill sets, and professional growth paths of marketing professionals. Traditionally, marketers prioritized creative campaign design, heuristic targeting, and manual content creation (Fatima, 2020). However, the rise of AIpowered products necessitates that they incorporate analytical thinking, data literacy, and technological skills into their professional profiles (Herhausen et al., 2020). In addition, marketers may gain from a greater understanding of customer emotion, perspective, and campaign-related vocabulary, as well as from research methodologies that are more successful. It is possible that ChatGPT may result in more tailored emails and recommendations for marketers, automated customer service that is available around the clock, and improved and more accurate customer service from contact centers. As demonstrated by Low et al. (2020), who highlighted that administrators create task teams and schedule institution-wide meetings in response to the tools, the most common recommendations revolve on the use of this technology (Dwivedi et al., 2020). Furthermore, the ability to analyze real-time information from AI systems and integrate them into practical marketing plans has increased the marketer's strategic value within firms. This trend motivates marketers, data scientists, and legal experts to work together more closely to match AI applications with overall business goals and social expectations. Overall, the use of generative AI in digital marketing is transforming the entire professional scene, forcing marketers to adapt, evolve, and gain sophisticated competencies required for long-term success.

# Factors influencing adoption and deployment of generative artificial intelligence in digital marketing

Recent study suggests that the acceptance and deployment of generative artificial intelligence (AI) in digital marketing is influenced by a number of interconnected elements (Faruk et al., 2021). On the facilitating side, firms profit from strong technological infrastructures and coherent strategic plans that incorporate AI tools into existing marketing processes (Matta et al., 2020). Marketers are more likely to embrace AI-driven innovations when they have strong leadership backing and are ready to spend in training and skill development. Furthermore, documented benefits in efficiency, personalization, and cost-effectiveness provide for a compelling business case, encouraging greater AI use (Terho et al., 2022; Luangrath et al., 2021). However, significant obstacles remain. Ethical and regulatory issues, such as addressing biases in algorithmic outputs and conforming to changing data protection requirements, can impede implementation efforts (Sætra, 2023; Melović et al., 2020). Market actors also struggle to navigate opaque AI "black-box" models, resulting in trust deficits among stakeholders (Mogaji et al., 2020; Olson et al., 2021). Furthermore, a lack of specialized skills, reluctance to organizational change, and the complexities of integrating AI

with legacy systems can impede smooth adoption (Prentice et al., 2020; Wang et al., 2022). Although generative AI holds promise for revolutionizing digital marketing strategies, its effective incorporation necessitates striking a balance between enabling conditions and strategic management of enduring ethical, technological, and skill-related obstacles to lessen the detrimental effects on customer trust, service adoption, and digital communication culture (Jaas, 2022; Hsu & Lin, 2022).

#### **Discussion**

One must recognize the constraints of Generative artificial intelligence, despite its impressive array of capabilities and ability to generate captivating content in many genres such as stories, songs, essays, and other creative writing. The user's inquiries are taken into consideration by the bot, which then provides responses that are both convincing and educational (Osadchaya et al., 2024). The results showed that GenAI can advocate for innovative ideas that help firms stand out from the competition and can choose material with a wide audience in mind. In the end, it makes sense to think of GenAI as a form of indirect incentive. According to Rana et al. (2024), depending on the circumstances, a variety of ethical issues may affect the application of GenAI. A number of factors that affect the business environment might influence the implementation (Dwivedi et al., 2020). The realm of invention might undergo a full transformation thanks to GenAI. According to the majority of them, artificial intelligence would both protect and provide room for new ideas. The marketing uses of ChatGPT and the variables that can influence its uptake by consumers and marketers are examined in the study by Gupta et al. (2024). Besides this, it also considers the possible effects that ChatGPT can have on marketers. (Gao et al., 2023) have noted that the use of artificial intelligence has had a significant effect on the advertising sector. It is crucial to use artificial intelligence in marketing with prudence to protect people's privacy, avoid algorithmic bias, and allow customers to comprehend and use the findings. These concerns are vitally important when it comes to the business ethics of artificial intelligence for marketing.

#### **Conclusion**

Thanks to natural language processing, AI-powered chatbots and virtual assistants can provide round-the-clock customer service and interaction. These technological developments result in enhanced customer communication, heightened customer satisfaction, and reduced response times, all of which contribute to an outstanding customer experience. In order to optimize marketing tactics, spot trends, and predict consumer behavior, generative artificial intelligence allows for the real-time examination of enormous data sets. Marketers have the potential to improve their return on investment, make more informed decisions, and reduce inefficiencies with the assistance of this technology. Generational artificial intelligence has the capacity to generate content that is both automated and of high quality across a variety of channels, including social media postings, blog articles, video scripts, and email marketing campaigns. A higher level of customization is required in today's highly competitive market, and this automation not only enables a higher level of personalization but also reduces the amount of time and money spent on content production. Generative AI has made it possible for marketers to target individual consumers with adverts that are tailored to their interests

and actions. Artificial intelligence improves consumer engagement and conversion rates by analyzing massive databases and producing personalized content. In many cases, marketing endeavors are more successful as a consequence of this. In addition to illuminating the possibilities of generative AI in digital marketing, this study highlights certain challenges that require resolution.

Ethical concerns about the protection of data privacy, the likelihood of bias in algorithms, and the level of transparency in content generated by artificial intelligence are all important issues that require solutions. It is possible that this may have an effect on the uniqueness and authenticity of marketing material because it will reduce the amount of human supervision and ingenuity employed. The capability to accomplish this is possessed by artificial intelligence. Taking into consideration the continual development of the field, it is imperative that future research give priority to the creation of ethical frameworks and norms that will regulate the application of generative artificial intelligence in digital marketing. It's possible that hybrid tactics, which combine human creativity with content created by artificial intelligence, could result in more successful marketing campaigns. As artificial intelligence (AI) continues to advance, generative AI will play an increasingly important role in digital marketing. This is because it will provide new opportunities for customization, immediate contact, and predictive analysis.

#### **Future research**

As previously said, scholarly research on potential uses for Generative AI in digital marketing is still in its early phases. It is expected that the number of research publications will increase dramatically in the near future. Currently, much of the literature focuses on theoretical use cases with insufficient empirical validation through real-world application. This emphasizes the necessity for more thorough investigation into the individual commercial and operational requirements for successfully incorporating Generative AI into marketing campaigns. Furthermore, the ethical and legal implications of Generative AI are a critical field for academic research. The development of thorough frameworks and methods for the responsible leadership of this knowledge may be encouraged for scholars. These suggestions might serve as the foundation for upcoming empirical studies on the development and application of different management systems.

# **Research Implications and limitations**

This study adds theoretical and practical insights to the use of generative artificial intelligence (AI) in digital marketing. The research contributes to the current literature by highlighting the different capabilities and opportunities provided by generative models. The use of generative AI has been shown to increase marketing productivity by automating content production, customizing customer interactions, and optimizing campaigns in real time. These developments not only save time and resources for marketing activities, but also allow marketers to concentrate on strategic projects. Furthermore, generative AI improves consumer experiences by allowing for the quick and tailored transmission of information, resulting in enhanced consumer pleasure, stronger brand loyalty, and higher engagement rates. The capacity to produce interactive advertising material, bespoke video campaigns, and unique AI-generated content promotes innovation and creativity in the marketing sector,

giving businesses a competitive advantage through greater customer service and individualized experiences.

The study does, however, also address a number of practical and ethical issues related to the application of generative AI in marketing. The safety of consumer data, the possibility of bias in AI-generated content, and the opaqueness of AI implementation are the main issues. In order to address these concerns, the study suggests moral principles that guarantee companies may take use of AI's advantages while preserving client confidence and abiding by the law. As regular operations are automated, the adoption of generative AI will have an influence on career options in content generation and customer service. To be competitive in a digital landscape, marketing professionals may need to adapt by honing their creative thinking and strategic planning skills. The article makes practical recommendations for firms looking to apply generative AI, such as best practices for implementation, technology selection, and system integration. By studying case studies of successful AI integration, the research gives practical insights and real-world examples that may be used by other enterprises. Nonetheless, the study admits limitations such as the limited reach of database sources and the early stages of relevant literature, predicting substantial developments and new findings in the near future.

Furthermore, much of the relevant literature in this topic has been published in recent months, implying that the research is still in its early phases. As a result, this review only provides an early overview, and it predicts a major influx of new material in the following months, introducing innovative concepts and conclusions.

### **Practice Recommendations**

Organizations seeking to leverage generative AI in digital marketing should adopt a strategic, ethically grounded approach. First, they should invest in specialized training programs to enhance marketers' technical competencies, ensuring seamless integration of AI-generated content into existing workflows. Additionally, establishing transparent ethical guidelines and data governance frameworks will foster consumer trust and mitigate biases within AI outputs. Continuous monitoring and periodic audits of AI tools can further ensure compliance with evolving regulatory standards. Collaboration with interdisciplinary teams, including data scientists and legal experts, will strengthen decision-making processes, while continuing professional development will support marketers' evolving roles in an AI-driven environment.

#### References

- Abrokwah-Larbi, K. (2023). The role of generative artificial intelligence (GAI) in customer personalisation (CP) development in SMEs: a theoretical framework and research propositions. *Industrial Artificial Intelligence*, 1 (1). https://doi.org/10.1007/s44244-023-00012-4
- Adam, M., Wessel, M., & Benlian, A. (2020). AI-based chatbots in customer service and their effects on user compliance. *Electronic Markets*, *31* (2), 427–445. https://doi.org/10. 1007/s12525-020-00414-7
- Anantrasirichai, N., & Bull, D. (2021). Artificial intelligence in the creative industries: a review. *Artificial Intelligence Review*, 55 (1), 589–656. https://doi.org/10.1007/s10462-021-10039-7

- Bag, S., Srivastava, G., Bashir, M. A., Kumari, S., Giannakis, M., & Chowdhury, A. H. (2021). Journey of customers in this digital era: Understanding the role of artificial intelligence technologies in user engagement and conversion. *Benchmarking an International Journal*, 29 (7), 2074–2098. https://doi.org/10.1108/bij-07-2021-0415
- Bandi, A., Adapa, P. V. S. R., & Kuchi, Y. E. V. P. K. (2023). The power of Generative AI: a review of requirements, models, Input–Output formats, evaluation metrics, and challenges. *Future Internet*, *15* (8), 260. https://doi.org/10.3390/fi15080260
- Bariş, A. (2020). A new business marketing tool: Chatbot. *DergiPark (Istanbul University)*. https://doi.org/10.5281/zenodo.4030216
- Behera, R. K., Gunasekaran, A., Gupta, S., Kamboj, S., & Bala, P. K. (2019). Personalized digital marketing recommender engine. *Journal of Retailing and Consumer Services*, 53, 101799. https://doi.org/10.1016/j.jretconser.2019.03.026
- Bilgram, V., & Laarmann, F. (2023). Accelerating innovation with Generative AI: AI-Augmented Digital Prototyping and Innovation methods. *IEEE Engineering Management Review*, 51 (2), 18–25. https://doi.org/10.1109/emr.2023.3272799
- Chen, Y., Kwilinski, A., Chygryn, O., Lyulyov, O., & Pimonenko, T. (2021). The Green Competitiveness of Enterprises: Justifying the quality criteria of digital marketing communication channels. *Sustainability*, *13* (24), 13679. https://doi.org/10.3390/su 132413679
- Cheng, X., Zhang, X., Cohen, J., & Mou, J. (2022). Human vs. AI: Understanding the impact of anthropomorphism on consumer response to chatbots from the perspective of trust and relationship norms. *Information Processing & Management*, 59 (3), 102940. https://doi.org/10.1016/j.ipm.2022.102940
- Chintalapati, S., & Pandey, S. K. (2021). Artificial intelligence in marketing: A systematic literature review. *International Journal of Market Research*, 64 (1), 38–68. https://doi.org/10.1177/14707853211018428
- Chun, H., Leem, B., & Suh, H. (2021). Using text analytics to measure an effect of topics and sentiments on social-media engagement: Focusing on Facebook fan page of Toyota. *International Journal of Engineering Business Management*, 13, 184797902110162. https://doi.org/10.1177/18479790211016268
- Davies, K. S. (2011). Formulating the evidence based practice Question: A review of the frameworks. *Evidence Based Library and Information Practice*, 6 (2), 75–80. https://doi.org/10.18438/b8ws5n
- Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., Kumar, V., Rahman, M. M., Raman, R., Rauschnabel, P. A., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2020). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, *59*, 102168. https://doi.org/10.1016/j.ijinfomgt.2020.102168
- Faruk, M., Rahman, M., & Hasan, S. (2021). How digital marketing evolved over time: A bibliometric analysis on scopus database. *Heliyon*, 7 (12), e08603. https://doi.org/10. 1016/j.heliyon.2021.e08603
- Fatima, W. (2020). Digital marketing capabilities in international firms: a relational perspective. *International Marketing Review*, *37* (3), 559–577. https://doi.org/10. 1108/imr-04-2018-0128

- Gao, B., Wang, Y., Xie, H., Hu, Y., & Hu, Y. (2023). Artificial intelligence in advertising: advancements, challenges, and ethical considerations in targeting, personalization, content creation, and ad optimization. *SAGE Open*, *13* (4). https://doi.org/10.1177/21582440231210759
- Gkikas, D. C., & Theodoridis, P. K. (2021). AI in Consumer Behavior. In *Learning and analytics in intelligent systems* (pp. 147–176). https://doi.org/10.1007/978-3-030-80571-5\_10
- Gupta, R., Nair, K., Mishra, M., Ibrahim, B., & Bhardwaj, S. (2024). Adoption and impacts of generative artificial intelligence: Theoretical underpinnings and research agenda. *International Journal of Information Management Data Insights*, 4 (1), 100232. https://doi.org/10.1016/j.jjimei.2024.100232
- Herhausen, D., Miočević, D., Morgan, R. E., & Kleijnen, M. H. (2020). The digital marketing capabilities gap. *Industrial Marketing Management*, 90, 276–290. https://doi.org/10.1016/j.indmarman.2020.07.022
- Hocutt, D. L. (2024). Composing with generative AI on digital advertising platforms. *Computers & Composition/Computers and Composition*, 71, 102829. https://doi.org/10.1016/j.compcom.2024.102829
- Hsu, C., & Lin, J. C. (2022). Understanding the user satisfaction and loyalty of customer service chatbots. *Journal of Retailing and Consumer Services*, 71, 103211. https://doi.org/10.1016/j.jretconser.2022.103211
- Jaas, A. (2022). E-Marketing and its Strategies: Digital Opportunities and challenges. *Open Journal of Business and Management*, 10 (02), 822–845. https://doi.org/10. 4236/oibm.2022.102046
- Kumar, V., Ashraf, A. R., & Nadeem, W. (2024). AI-powered marketing: What, where, and how? *International Journal of Information Management*, 77, 102783. https://doi.org/10.1016/j.ijinfomgt.2024.102783
- Lopes, A. R., & Casais, B. (2022). Digital Content Marketing: Conceptual review and recommendations for practitioners. *Academy of Strategic Management Journal*, *21* (2), 0. https://www.abacademies.org/articles/digital-content-marketing-conceptual-review- and-recommendations-for-practitioners-14107.html
- Low, S., Ullah, F., Shirowzhan, S., Sepasgozar, S. M. E., & Lee, C. L. (2020). Smart digital marketing capabilities for Sustainable Property Development: A case of Malaysia. *Sustainability*, *12* (13), 5402. https://doi.org/10.3390/su12135402
- Luangrath, A. W., Peck, J., Hedgcock, W., & Xu, Y. (2021). Observing Product Touch: The vicarious haptic effect in digital marketing and virtual reality. *Journal of Marketing Research*, 59 (2), 306–326. https://doi.org/10.1177/00222437211059540
- Lv, Z. (2023). Generative artificial intelligence in the metaverse era. *Cognitive Robotics*, *3*, 208–217. https://doi.org/10.1016/j.cogr.2023.06.001
- Mariani, M., & Dwivedi, Y. K. (2024). Generative artificial intelligence in innovation management: A preview of future research developments. *Journal of Business Research*, 175, 114542. https://doi.org/10.1016/j.jbusres.2024.114542
- Matta, H., Gupta, R., & Agarwal, S. (2020). Search Engine optimization in Digital Marketing: Present Scenario and Future Scope. In *2020 International Conference on Intelligent Engineering and Management (ICIEM)* (1st ed., Vols. 530–534, pp. 530–534). IEEE. https://doi.org/10.1109/iciem48762.2020.9160016

- Melović, B., Jocović, M., Dabić, M., Vulić, T. B., & Dudic, B. (2020). The impact of digital transformation and digital marketing on the brand promotion, positioning and electronic business in Montenegro. *Technology in Society*, *63*, 101425. https://doi.org/10.1016/j.techsoc.2020.101425
- Mogaji, E., Soetan, T. O., & Kieu, T. A. (2020). The implications of artificial intelligence on the digital marketing of financial services to vulnerable customers. *Australasian Marketing Journal (AMJ)*, 29 (3), 235–242. https://doi.org/10.1016/j.ausmj.2020.05. 003
- Newman, M., & Gough, D. (2019). Systematic Reviews in Educational Research: Methodology, Perspectives and application. In *Springer eBooks* (pp. 3–22). https://doi.org/10.1007/978-3-658-27602-7\_1
- Nikolaev, D. (2024). Systematic review: Opportunities and barriers to online marketing caused by the development of the internet of things. *Verslas Teorija Ir Praktika*, 25 (1), 36–50. https://doi.org/10.3846/btp.2024.19203
- Nuseir, M. T., Refae, G. a. E., Aljumah, A., Alshurideh, M., Urabi, S., & Kurdi, B. A. (2023). Digital Marketing Strategies and the Impact on Customer Experience: A Systematic review. *Studies in Computational Intelligence*, 21–44. https://doi.org/10.1007/978-3-031-12382-5 2
- Olson, E. M., Olson, K. M., Czaplewski, A. J., & Key, T. M. (2021). Business strategy and the management of digital marketing. *Business Horizons*, 64 (2), 285–293. https://doi.org/10.1016/j.bushor.2020.12.004
- Ooi, K., Tan, G. W., Al-Emran, M., Al-Sharafi, M. A., Capatina, A., Chakraborty, A., Dwivedi, Y. K., Huang, T., Kar, A. K., Lee, V., Loh, X., Micu, A., Mikalef, P., Mogaji, E., Pandey, N., Raman, R., Rana, N. P., Sarker, P., Sharma, A., . . . Wong, L. (2023). The potential of generative artificial intelligence across disciplines: perspectives and future directions. *Journal of Computer Information Systems*, 1–32. https://doi.org/10.1080/08874417.2023.2261010
- Osadchaya, E., Marder, B., Yule, J. A., Yau, A., Lavertu, L., Stylos, N., Oliver, S., Angell, R., De Regt, A., Gao, L., Qi, K., Zhang, W. Z., Zhang, Y., Li, J., & AlRabiah, S. (2024). To ChatGPT, or not to ChatGPT: Navigating the paradoxes of generative AI in the advertising industry. *Business Horizons*, 67 (5), 571–581. https://doi.org/10.1016/j.bushor.2024.05.002
- Prasad, G. N. R., & Chandrika, T. S. P. (2022). The role of an On-Page optimization for an effective digital marketing. *International Journal of Research Publication and Reviews*, 3409–3412. https://doi.org/10.55248/gengpi.2022.3.5.21
- Prentice, C., Weaven, S., & Wong, I. A. (2020). Linking AI quality performance and customer engagement: The moderating effect of AI preference. *International Journal of Hospitality Management*, 90, 102629. https://doi.org/10.1016/j.ijhm.2020.102629
- Rana, N. P., Pillai, R., Sivathanu, B., & Malik, N. (2024). Assessing the nexus of Generative AI adoption, ethical considerations and organizational performance. *Technovation*, 135, 103064. https://doi.org/10.1016/j.technovation.2024.103064
- Reis, J., & Melão, N. (2023). Digital transformation: A meta-review and guidelines for future research. *Heliyon*, 9 (1), e12834. https://doi.org/10.1016/j.heliyon.2023.e12834
- Rivas, P., & Zhao, L. (2023). Marketing with ChatGPT: Navigating the Ethical Terrain of GPT-Based Chatbot Technology. *AI*, 4 (2), 375–384. https://doi.org/10.3390/ai4020019

- Sætra, H. S. (2023). Generative AI: Here to stay, but for good? *Technology in Society*, 75, 102372. https://doi.org/10.1016/j.techsoc.2023.102372
- Saura, J. R., Palos-Sanchez, P., & Herráez, B. R. (2020). Digital Marketing for Sustainable growth: Business models and online campaigns using sustainable strategies. *Sustainability*, *12*(3), 1003. https://doi.org/10.3390/su12031003
- Soni, V. (2023). Adopting Generative AI in Digital Marketing Campaigns: An Empirical study of Drivers and Barriers. https://journals.sagescience.org/index.php/ssraml/article/view/108
- Terho, H., Mero, J., Siutla, L., & Jaakkola, E. (2022). Digital content marketing in business markets: Activities, consequences, and contingencies along the customer journey. *Industrial Marketing Management*, 105, 294–310. https://doi.org/10.1016/j.indmarman.2022.06.006
- Wang, X., Lin, X., & Shao, B. (2022). How does artificial intelligence create business agility? Evidence from chatbots. *International Journal of Information Management*, 66, 102535. https://doi.org/10.1016/j.ijinfomgt.2022.102535
- Whig, P., Bhatia, A. B., & Yathiraju, N. (2024). AI-Driven innovations in service marketing transforming customer engagement and experience. In *Advances in hospitality, tourism and the services industry (AHTSI) book series* (pp. 17–34). https://doi.org/10.4018/979-8-3693-7909-7.ch002
- Xiao, Y., & Watson, M. (2017). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, 39 (1), 93–112. https://doi.org/ 10.1177/0739456x17723971
- Yang, J., Blount, Y., & Amrollahi, A. (2024). Artificial intelligence adoption in a professional service industry: A multiple case study. *Technological Forecasting and Social Change*, 201, 123251. https://doi.org/10.1016/j.techfore.2024.123251