Chapter 1
Artificial Intelligence in Marketing:
A Literature Review on Ethical Implications and Managerial Strategies

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ABSTRACT

This literature review analyzes current research on artificial intelligence (AI) in marketing, focusing on ethical considerations and managerial applications. Recent studies cover a range of AI applications, including customer engagement, personalization, and brand loyalty, alongside the ethical challenges AI poses, such as data privacy, transparency, and fairness. The review identifies core theoretical frameworks such as social identity theory and affordance theory that underpin these discussions. Findings highlight that while AI can enhance consumer experiences and drive brand loyalty, it also requires ethical oversight to ensure responsible data

DOI: 10.4018/979-8-3693-9994-1.ch001

usage and avoid potential consumer mistrust. This review contributes to a deeper understanding of AI's dual role in marketing as both an enhancer of consumer engagement and a domain for ethical scrutiny

INTRODUCTION

The emergence of artificial intelligence (AI) represents one of the most transformative technological advancements of the 21st century. AI innovations are revolutionising how industries operate and innovate. Initially, AI was a concept rooted in computer science. However, it has rapidly evolved over the past decade due to advancements in machine learning, natural language processing, and big data analytics (Verma et al., 2021). This growth has enabled AI technology adoption across various sectors, including healthcare, finance, manufacturing, and retail, where automation and intelligent systems increasingly integrate into daily operations. In addition, Vlačić et al. (2021) found that these technologies have been adopted in the marketing industry, allowing companies to collect and analyse substantial consumer data, personalise customer experiences, and optimise their campaigns in significant ways. As a result, AI's adoption has transformed marketing into a data-driven, highly responsive field, facilitating more thoughtful decision-making and more effective strategies for engaging target audiences.

The growing reliance on AI in marketing has shifted toward more sophisticated, data-centric approaches. With the ability to process large-scale consumer data, AI systems give marketers more profound insights into customer preferences, behaviours, and purchasing patterns (Chintalapati & Pandey, 2022). Tools such as recommendation engines, predictive analytics, and real-time customer interaction platforms have allowed marketers to move from reactive strategies to proactive, predictive ones. Leveraging AI enables companies to deliver more targeted advertising, improve customer segmentation, and refine product offerings based on real-time feedback (Huang & Rust, 2021). Moreover, AI helps automate routine marketing tasks like email campaigns and social media management, freeing time for creative strategy development and innovation. The increasing integration of AI tools highlights the technology's potential to redefine the scope and impact of modern marketing strategies.

AI's impact on marketing has reshaped traditional marketing strategies and driven innovations that enhance customer relationships, increase efficiency, and provide predictive insights. AI has become central to many marketing operations, from automated content creation and personalised advertisements to advanced customer segmentation and sentiment analysis (Sterne, 2017). However, as AI-driven tools become more integral to marketing, ethical concerns regarding data privacy, algorithmic bias, and transparency have surfaced. These concerns have prompted

the need for responsible management and AI applications (Feng et al., 2021). This literature review provides a comprehensive analysis of the ethical implications of AI in marketing alongside the managerial strategies required to navigate this evolving field. Using a systematic bibliometric literature review (LRSB) of 175 documents, this paper synthesises existing research to explore how AI is redefining marketing while addressing the ethical and strategic challenges it presents.

METHODOLOGICAL APPROACH

This study utilises a systematic bibliometric literature review (LRSB) to explore the ethical implications and managerial strategies associated with using artificial intelligence (AI) in marketing. The LRSB method allows for a quantitative analysis of published literature, offering insights into the distribution of knowledge, key trends, and influential works within the field. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) framework guided the methodology to ensure a transparent and replicable review process. PRISMA was selected due to its structured approach to identifying, screening, and synthesising relevant literature, enhancing the findings' rigour and reliability (Haddaway et al., 2022). Following PRISMA's procedure allowed the systematic capturing of a broad scope of publications while filtering down to the most pertinent studies related to AI's role in marketing strategies.

The Scopus database was utilised to gather and select pertinent materials, following the guidance of Rosário & Casaca (2023) and Rosário et al. (2023, 2021). Scopus is highlighted as one of the most extensive abstract and citation databases, offering various sources, such as conference proceedings, books, and journal articles, and encompassing both international and regional research areas. The platform ensures high data quality through an independent Content Selection and Advisory Board, which enforces a stringent content selection and regular re-assessment protocol.

Unlike conventional literature reviews, the Systematic Bibliometric Literature Review (LRSB) approach provides a more structured and thorough analysis of the research landscape on a specific subject, as indicated by Rosário & Casaca (2023) and Rosário et al. (2023, 2021). This approach emphasises refining article selection to include only those works that directly address the research question. It also establishes a clear audit trail, enabling readers to evaluate the selected studies' methodology, findings, and overall quality.

The LRSB method follows a detailed protocol for screening and selecting sources to ensure the data's reliability and relevance. This protocol is divided into three phases and six steps, as shown in Table 1, by the methodologies detailed by Rosário & Casaca (2023) and Rosário et al. (2023, 2021).

Table 1. Process of systematic LRSB.

Fase	Step	Description
Exploration	Step 1	formulating the research problem
	Step 2	searching for appropriate literature
	Step 3	critical appraisal of the selected studies
	Step 4	data synthesis from individual sources
Interpretation	Step 5	reporting findings and recommendations
Communication	Step 6	Presentation of the LRSB report

Source: adapted *Rosário & Casaca (2023); Rosário et al. (2023, 2021).*

The researchers utilised the Scopus database to identify and select credible sources broadly acknowledged by the academic and scientific community. It is worth noting a limitation of this study: it focused solely on the Scopus database, excluding other academic and scientific databases, and restricted its search to publications available up to September 2024. The search strategy emphasised peer-reviewed academic and scientific publications.Parte superior do formulário

The selection process began with a comprehensive search of the Scopus database, using the search term "artificial intelligence" in the title, abstract, and keywords. This initial search identified 605,271 documents. A secondary search query was applied to narrow the focus to marketing applications: TITLE-ABS-KEY "artificial intelligence" AND TITLE-ABS-KEY "marketing," which reduced the dataset to 4,794 documents. This step was crucial in identifying literature that explicitly linked AI with marketing practices, ensuring the relevance of the documents to the study's aims. Finally, the search further refines by adding the keyword "marketing strategy," which limited the dataset to 175 documents directly related to AI-driven marketing strategies. These results formed the core of the systematic review, and the researchers subsequently analysed them for relevance and quality.

Specific inclusion and exclusion criteria were applied to ensure the relevance and rigour of the documents analysed in the final report (see Table 2). The researchers included only articles published in peer-reviewed journals that addressed the intersection of marketing strategy and brand development. To keep the dataset focused, they excluded publications unrelated to business, marketing, or branding fields. This systematic selection process ensured the final literature set was high-quality and closely aligned with the research objectives. Table 2 provides a summary of the search process.

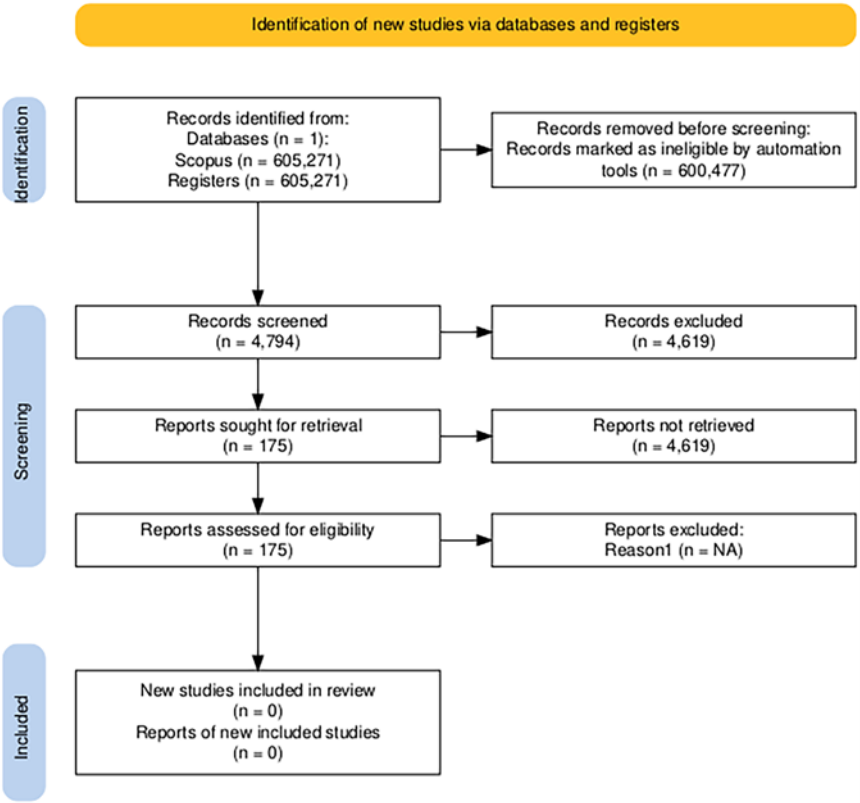
Table 2. Screening Methodology.

Database Scopus	Screening	Publications
Meta-search	Keyword: Artificial Intelligence	605,271
First Inclusion Criterion	Keyword: Artificial Intelligence, Marketing	4,794
Second Inclusion Criteria	Keyword: Artificial Intelligence, Marketing Exact Keyword: Marketing Strategy	175
Screening	Keyword: Artificial Intelligence, Marketing Exact Keyword: Marketing Strategy Until October 2024	

Source: own elaboration

Content and thematic analysis methods were utilised to identify, assess, and present the range of documents, following the approach outlined by Rosário & Casaca (2023) and Rosário et al. (2023, 2021). Strict selection criteria were applied to include only relevant, high-quality academic sources. The researchers included studies that specifically focused on luxury brands and consumer behaviour. Document eligibility was assessed based on alignment with the research topic, methodological rigour, and publication in peer-reviewed sources (see Figure 1).

Figure 1. PRISMA 2020 flow diagram for the systematic literature search.



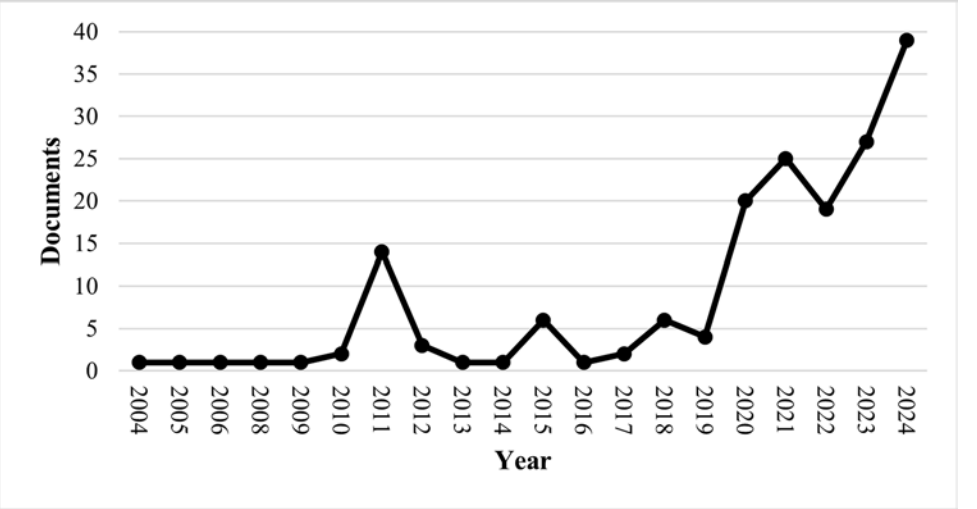
Subsequently, 175 scientific and academic documents indexed in Scopus were analysed using a combination of narrative and bibliometric approaches, as detailed by Rosário & Casaca (2023) and Rosário et al. (2023, 2021). These methods were applied to examine the documents' content and identify recurring themes that were directly relevant to the research questions.

Of the 175 documents selected, 83 were conference proceedings, 47 were journals, 40 were book series, and 5 were books.

PUBLICATION DISTRIBUTION

Peer-reviewed articles on Artificial Intelligence in Marketing on Ethical Implications and Managerial Strategies, September 2024. The year 2024 has the highest number of peer-reviewed publications, reaching 39. Figure 2 summarises the peer-reviewed literature published until September 2024.

Figure 2. Documents by year



Source: own elaboration

Figure 3 displays the countries exhibiting the highest levels of scientific output in specific research areas, with particular emphasis on China, India, the USA, and Indonesia, which boast the most significant number of publications.

Figure 3. Scientific production by country.

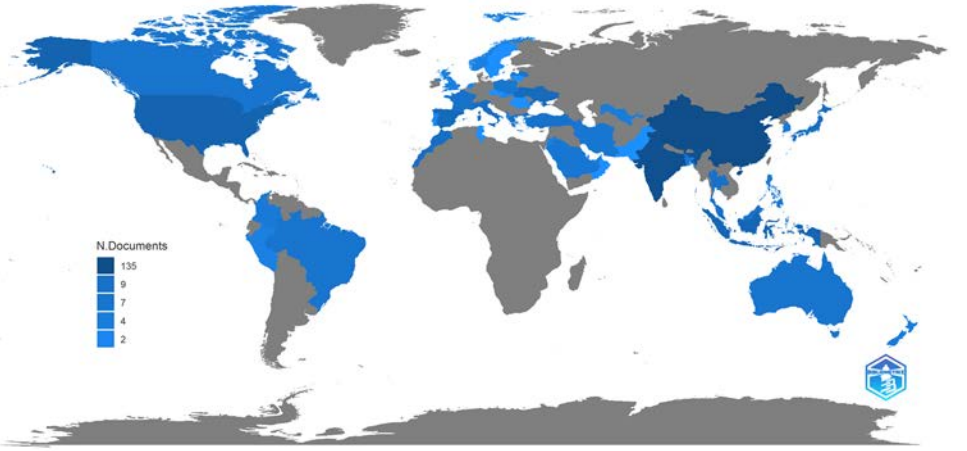


Table 3 and Figure 3 visually illustrate the top 10 nations making notable scientific contributions in the examined domains. This investigation aims to identify countries that prioritise studying luxury brands and their consumption.

Table 3. Top 10 countries by number of publications.

Country	Number of Publications
CHINA	135
INDIA	104
USA	25
INDONESIA	20
SPAIN	15
UKRAINE	14
ITALY	12
JAPAN	11
MOROCCO	11
BAHRAIN	9

Source: own elaboration

Publications were sorted out as follows: Advances In Intelligent Systems And Computing (8); 2011 2nd International Conference On Artificial Intelligence Management Science And Electronic Commerce Aimsec 2011 Proceedings (8); Lecture Notes In Networks And Systems (7); Lecture Notes In Computer Science Including Subseries Lecture Notes In Artificial Intelligence And Lecture Notes In Bioinformatics (7); Communications In Computer And Information Science (5); ACM International Conference Proceeding Series (4); Procedia Computer Science (3); Journal Of The Academy Of Marketing Science (3); Journal Of Physics Conference Series (3); Ceur Workshop Proceedings (3); with 2 (Studies In Big Data; Strategic Direction; Smart And Sustainable Interactive Marketing; Mobile Information Systems; Lecture Notes On Data Engineering And Communications Technologies; Lecture Notes In Electrical Engineering; Journal Of Business Research; International Conference On Electrical Computer Communications And Mechatronics Engineering Iceccme 2023; Information Switzerland; IFIP Advances In Information And Communication Technology; IEEE Access; Computers In Human Behavior), and the remaining publications with 1 document.

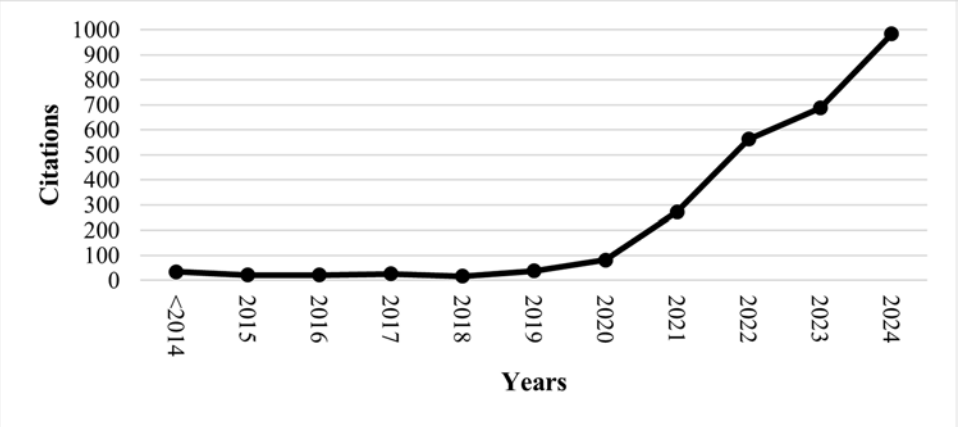
The subject areas covered by the 82 scientific or academic documents were Computer Science (142), Engineering (59), Business, Management and Accounting (37);

Mathematics (34); Decision Sciences (30); Economics, Econometrics and Finance (17); Physics and Astronomy (13); Materials Science (10); Social Sciences (7); Medicine (7); Energy (5); Psychology (4); Arts and Humanities (4); Neuroscience (3); Environmental Science (2); Earth and Planetary Sciences (2); Agricultural and Biological Sciences (2); Multidisciplinary (1); Chemistry (1); Chemical Engineering (1); and Biochemistry, Genetics and Molecular Biology (1).

The most quoted article was "A Strategic Framework for Artificial Intelligence in Marketing" by Huang & Rust (2021), with 499 quotes published in the Journal of the Academy of Marketing Science 7,190 (SJR), the best quartile (Q1), and with H index (207). In this article, "The authors develop a three-stage framework for strategic marketing planning, incorporating multiple artificial intelligence (AI) benefits: mechanical AI for automating repetitive marketing functions and activities, thinking AI for processing data to arrive at decisions, and feeling AI for analysing interactions and human emotions."

In Figure 4, we can analyse citation changes for documents published up to September 2024. The period ≤2014-2024 shows a positive net growth in citations with an R2 of 72%, reaching 983 in 2024.

Figure 4. Evolution of citations between ≤2014 and 2024.



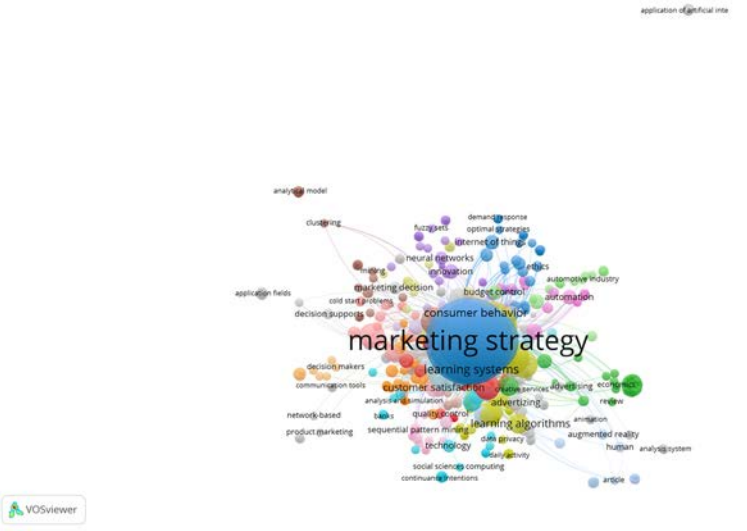
Source: own elaboration

The h-index measures the productivity and impact of published works by identifying the highest number of articles each has received at least an equal number of citations. Seventeen of the documents considered for the h-index received at least 17 citations.

Citations of all scientific and academic documents from the period ≤2014 to September 2024, with a total of 2,746 citations; of the 175 documents, 71 were not cited. The self-citation of documents in ≤2014 to September 2024 was 59.

Using the main keywords "Artificial Intelligence in Marketing on Ethical Implications and Managerial Strategies, "the bibliometric analysis revealed key indicators of the evolving landscape of scientific and academic information within the documents, as shown in Figure 5. The researchers derived these insights using VOSviewer scientific software, focusing specifically on the primary search terms: "Artificial Intelligence," "Marketing," and "Marketing Strategy."

Figure 5. Network of all keywords



This study builds on a thorough review of scientific and academic literature exploring Artificial Intelligence in Marketing on Ethical Implications and Managerial Strategies. Figure 6 provides a detailed examination of the interrelated keywords, highlighting the connections between critical terms across the academic articles. This analysis helps identify the topics covered in these studies and offers valuable insights into potential avenues for future research. Furthermore, Figure 7 illustrates a substantial number of co-citations and units, enhancing the analysis of the cited references and supporting the overall findings.

Figure 6. Network of Linked Keywords

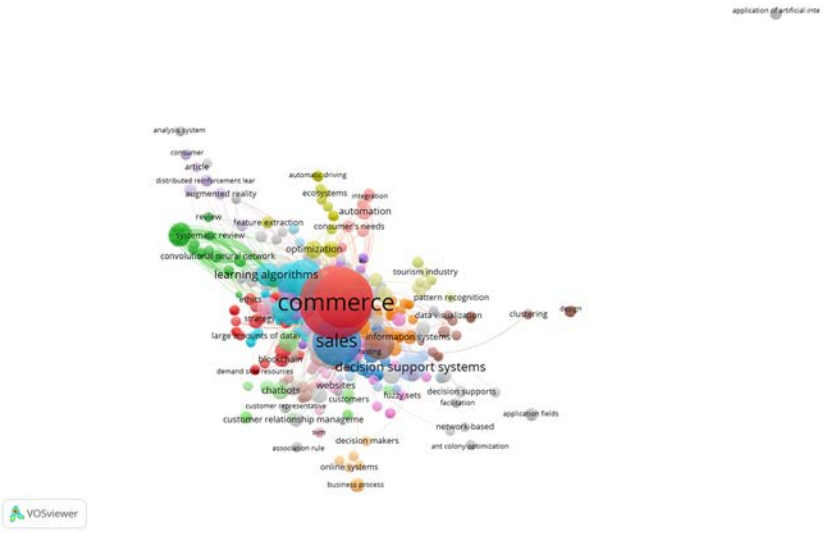
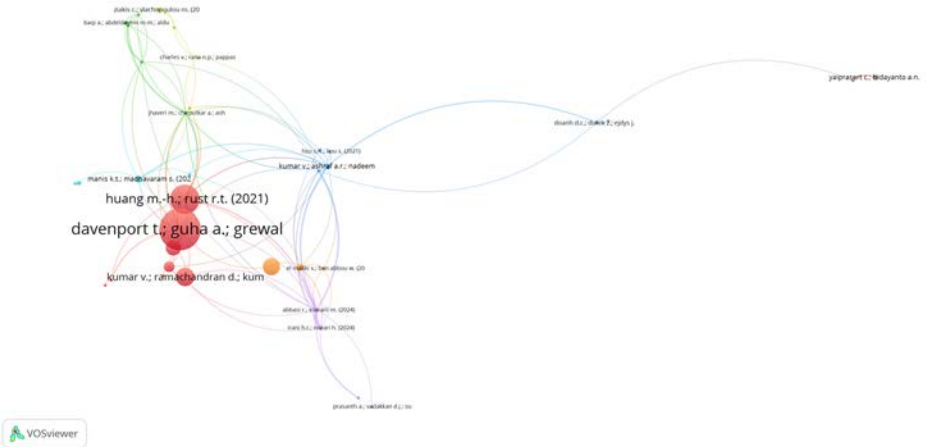


Figure 7. Network of co-citation



THEORETICAL PERSPECTIVES

In recent years, the integration of AI into marketing has grown significantly. Businesses increasingly leverage AI technologies to enhance customer engagement, streamline operations, and optimise marketing strategies (Jhaveri et al., 2023). AI-driven tools like machine learning algorithms, chatbots, and predictive analytics have become central to marketing efforts. They enable companies to deliver personalised content, automate processes, and make data-informed decisions (Mdoe et al., 2023). This growth and adoption have led to increased research on the application of AI in marketing and its potential impacts and challenges. This literature review section synthesises data from the identified 175 sources.

Defining the Main Concepts

Artificial Intelligence

Artificial intelligence (AI) is a branch of computer science focused on creating systems and technologies capable of simulating human cognitive processes such as learning, reasoning, problem-solving, and decision-making. Although there is no standard definition of AI, Samoili et al. (2020) describe it as "machines that behave like humans or are capable of actions that require intelligence" (p.7). AI encompasses a wide range of subfields, including machine learning, natural language processing, and neural networks, which allow systems to adapt, predict, and improve through exposure to new data (Ponomarenko et al., 2024). AI systems analyse vast amounts of information, identify patterns, and execute tasks with high accuracy, often surpassing human capabilities in speed and scalability.

AI transforms marketing by enhancing data analysis, automating repetitive tasks, and improving customer interaction through personalised content and predictive insights. Tools like recommendation engines, chatbots, and predictive analytics are examples of how AI is applied to make marketing more efficient and effective (Rama Krishna et al., 2023; Salkovska et al., 2023). They enable businesses to precisely reach target audiences and optimise decision-making based on real-time data. As AI continues to evolve, its potential to revolutionise marketing strategies is substantial (Özkaynak et al., 2024). Its ability to process and interpret large-scale consumer data will be at the forefront of digital marketing innovation.

Marketing

Marketing is the strategic process by which organisations create, communicate, and deliver value to consumers with the ultimate goal of promoting and selling products

or services. Its history dates back 200 years, when Thomas Barrett invented persuasion, awareness, and promotion techniques (Sheth, 2021; Cillo & Rubera, 2024). Marketing involves understanding customer needs and behaviours, market research, brand positioning, product development, and campaigns to generate awareness and drive consumer engagement. Modern marketing integrates traditional approaches, such as print advertising and in-store promotions, and digital tactics, such as social media marketing, search engine optimisation (SEO), and email campaigns (Abdulla & Hussain, 2024; Kurolov, 2022). Developing a strategy that balances long-term brand equity with short-term sales objectives, using data to inform decision-making, and adapting to changing market conditions is central to effective marketing (Djasurovna et al., 2024; Zeeshan & Saxena, 2020). In today's digital era, marketing has become increasingly data-driven, relying on advanced tools and technologies, including AI, to collect consumer insights, analyse trends, and automate workflows (Ziakis & Vlachopoulou, 2023). This shift allows marketers to craft personalised, real-time customer experiences, building stronger relationships between brands and their audiences while optimising resource allocation and marketing performance across various platforms.

Theoretical Frameworks on AI Adoption in Marketing

Theoretical frameworks provide a structured approach to understanding the underlying principles and dynamics that influence AI adoption in marketing. Applying established theories can help comprehend how marketers and consumers interact with AI-driven tools and the implications of these interactions on marketing strategies (Doanh et al., 2023; Narayanasamy et al., 2019). Two relevant frameworks in this context are Social Identity Theory and Affordance Theory. They offer valuable insights into how AI shapes the marketing landscape and influences consumer behaviour. These theories help explain the psychological and perceptual factors that drive the adoption and effectiveness of AI technologies in marketing.

Social Identity Theory

Henri Tajfel and John Turner developed the Social Identity Theory (SIT) in the 1970s. However, Raskovic and Takacs-Haynes (2021) trace its origins back to Henri Tajfel's early research in the 1950s on the influence of social categorisation on perceptions, followed by his exploration of the cognitive basis of prejudice in the 1960s. His work on minimal social categorisation in the early 1970s and group-based social comparisons in the mid-1970s also provided foundational concepts. SIT argues that individuals define themselves based on their membership in social groups (Hodson & Earle, 2017). According to this theory, a person's self-concept is

closely tied to their identification with various groups, whether based on nationality, gender, profession, or brand loyalty. The theory explains how individuals derive pride and self-esteem from the success and status of the groups they associate with, leading to in-group favouritism and out-group discrimination (Charness & Chen, 2020). In addition, SIT highlights the psychological mechanisms that drive group behaviour, including categorisation, identification, and comparison. Individuals tend to categorise themselves and others into social groups, identify with these groups, and compare their group to others to maintain positive self-perceptions.

SIT is highly relevant in explaining the adoption of AI in marketing, especially in understanding consumer behaviour and brand loyalty in the digital age. AI-driven marketing tools leverage data on social identities to create more personalised and targeted content that resonates with specific consumer groups (Liu et al., 2020). For example, AI can analyse consumer data to identify patterns of group behaviour, enabling brands to tailor their messaging and positioning to align with the identities of their target audiences. AI-enhanced tools such as customer segmentation and personalised advertising can reinforce consumers' sense of belonging to specific brand communities, strengthening brand loyalty (Rather & Hollebeek, 2019). Moreover, AI systems can track how social identities evolve, giving marketers real-time insights into how consumers' group affiliations influence purchasing behaviour (Selenko et al., 2022). Consequently, they can leverage these insights to create dynamic and relevant marketing strategies that capitalise on the psychological principles of SIT.

Affordance Theory

Psychologist James J. Gibson originally introduced the Affordance Theory. It refers to the concept that an object or environment provides particular action possibilities or “affordances” based on its properties and the individual's capabilities (Blewett & Hugo, 2016). In essence, affordances are the potential uses or actions a person perceives in an object or system. The theory highlights the relationship between users and the technological tools they interact with (Volkoff & Strong, 2017). Researchers have widely applied it in various fields, including design, human-computer interaction, and organisational studies. Affordances are not intrinsic features but rather emerge through the interaction between the user's goals and the object's capabilities, meaning that what one person sees as a possibility for action may differ from another based on their context and knowledge.

Affordance Theory helps explain how AI tools provide marketers with new possibilities for action and strategy. AI offers multiple affordances to marketing professionals, such as automating routine tasks, providing predictive analytics, and delivering personalised content at scale (Keller et al., 2019). Marketers perceive these affordances based on their understanding of the technology and its alignment

with their strategic goals. For example, AI's ability to analyse large datasets allows marketers to gain deeper insights into customer behaviour and preferences, leading to more informed decision-making (Liu & Chen, 2024). Similarly, AI-driven chatbots afford real-time customer service, enabling businesses to enhance customer experience and engagement. The concept of affordance is critical in explaining how marketing teams adopt and use AI technologies (Lin et al., 2022). It emphasises that the value of AI lies not just in its technical capabilities but in how users recognise and leverage these capabilities within their specific marketing contexts.

Applications of AI in Marketing

AI applications in marketing have transformed how businesses engage with consumers, optimise strategies, and drive growth. Leveraging AI innovations, such as advanced machine learning algorithms and data analytics, enables marketers to make more informed decisions, personalise customer experiences, and automate critical processes (Patil et al., 2024; Hidri et al., 2020; Sakas et al., 2022). Integrating AI across various marketing functions enhances efficiency and provides valuable insights that lead to more targeted and effective campaigns (Wilendra et al., 2024). Below are vital applications of AI in marketing that demonstrate its broad and impactful role in the industry.

Customer Engagement

AI-driven technologies enhance customer engagement by facilitating meaningful interactions between brands and their audiences. Businesses use machine learning algorithms to analyse customer behaviour and preferences in real time, allowing for timely and relevant communication (Kunekar et al., 2024; Peruchini et al., 2024). For instance, Gabelaia (2023) found that AI can track how users interact with digital content, enabling marketers to identify patterns that indicate a customer's interests and needs. With this insight, brands can create tailored experiences, such as personalised recommendations and targeted content, fostering a deeper connection with customers (Albán Bartra et al., 2021; Chen et al., 2020). In addition, AI-powered tools can automate engagement efforts (Hsu & Liou, 2021). This would ensure that businesses maintain consistent and effective communication across various platforms, from social media to email marketing, ultimately leading to stronger customer relationships and increased engagement rates.

Brand Loyalty

AI significantly influences brand loyalty by enabling companies to provide personalised experiences that resonate with individual consumers. AI leverages data analytics, which helps brands understand their customer's preferences, habits, and feedback, allowing for tailored interactions that enhance satisfaction (James et al., 2021; Rodriguez-Sarmiento et al., 2024). For example, AI can analyse purchase history and browsing behaviour to suggest products that align with customers' tastes, creating a sense of understanding and connection (Huang & Rust, 2021). Moreover, AI-driven loyalty programs can dynamically adapt to customer behaviour, offering rewards aligning with purchasing patterns and encouraging repeat business (Liu & Chen, 2021; Lv, 2022). As a result, when customers feel valued and understood, their likelihood of developing loyalty toward a brand increases. The sense of being valued and understood contributes to long-term customer retention and advocacy.

Personalisation

Personalisation is a crucial application of AI in marketing that transforms how businesses communicate with customers. According to Rao et al. (2018), AI enables marketers to create highly personalised content and recommendations by analysing vast amounts of data, including demographic information, browsing history, and purchase patterns. This tailored approach enhances the customer experience by ensuring that marketing messages are relevant and timely, significantly improving engagement rates (Kushnarevych & Kollárová, 2023; Lee, 2021). In addition, personalised marketing campaigns, driven by AI insights, can dynamically adjust in real-time, responding to user interactions and preferences (Irani & Nozari, 2024). This strategy enhances the overall effectiveness of marketing strategies and customer satisfaction.

Predictive Analytics

AI-powered predictive analytics allows marketers to forecast future consumer behaviours and trends based on historical data. Businesses employing machine learning algorithms can analyse patterns in customer interactions, purchase histories, and market dynamics to identify potential future actions (Adi Pratama et al., 2024; Wu et al., 2021). This capability enables organisations to make data-driven decisions about inventory management, marketing strategies, and customer engagement efforts (Tianyuan & Moro, 2021). Predictive analytics can help determine which products are likely in demand, allowing companies to optimise inventory and reduce waste (Al Khaldy et al., 2023; Tian et al., 2018; Kadu & Joshi, 2022). Furthermore, brands

can proactively engage with their audiences through targeted marketing campaigns by anticipating customer needs, improving customer satisfaction and increasing conversion rates.

Customer Segmentation

AI enhances customer segmentation by providing deeper insights into consumer behaviours and preferences, allowing marketers to categorise audiences more effectively. Traditional segmentation methods rely on broad demographic criteria. AI enables more nuanced groupings based on intricate behavioural data (Agrawal et al., 2024; Jha et al., 2020). AI can identify distinct customer segments with common traits or preferences by analysing purchasing habits, online interactions, and social media activity (Septiana Putra et al., 2023; Kasahara et al., 2017). This advanced segmentation allows marketers to tailor their strategies to specific groups, delivering targeted messages and offers that resonate more effectively (Su, 2018; Thamaraiselvi et al., 2024). As a result, businesses can optimise their marketing efforts, allocate resources efficiently, and achieve higher engagement and conversion rates in their campaigns.

Chatbots and Virtual Assistants

AI-powered chatbots and virtual assistants have revolutionised customer service by providing real-time support and information. These AI-driven tools can handle various inquiries, from answering frequently asked questions to guiding customers through complex processes while operating 24/7 (Youn & Jin, 2021). Chatbots leverage natural language processing to understand and respond to customer queries conversationally, enhancing the overall user experience (Huang et al., 2021; Chica et al., 2023). In addition, they can collect valuable data on customer preferences and issues, which can inform marketing strategies and product development (Liu, 2021; Khatibi et al., 2011). As a result, businesses that implement AI chatbots and virtual assistants can significantly improve customer satisfaction, streamline operations, and reduce response times (Khondakar et al., 2024). These practices help free human agents to focus on more complex tasks.

Marketing Automation

AI plays a critical role in marketing automation by streamlining repetitive tasks and enhancing the efficiency of marketing campaigns. Businesses can automate various processes using AI-driven tools, including email marketing, social media posting, and lead nurturing (Gupta & Tomar, 2021; Kordon, 2010). This automation allows

marketers to focus on strategic planning and creativity. For instance, AI can analyse customer behaviour to trigger automated email responses based on user actions, such as abandoned shopping carts or recent purchases (Martínez-Rolán & Piñeiro-Otero, 2022). This level of automation saves time and resources and ensures that customers receive timely and relevant communications (Manis & Madhavaram, 2023; Kumar et al., 2024). Organisations that integrate AI into marketing automation improve their responsiveness to consumer needs and optimise the overall effectiveness of their marketing strategies.

Ad Targeting

AI helps analyse consumer data to deliver personalised advertisements to the right audience at the right time. Through machine learning algorithms, AI can identify patterns in user behaviour, preferences, and demographics (Otero & Gutiérrez, 2015). Marketers can then use these insights to segment their audiences more precisely. This targeted approach ensures that advertisements reach individuals most likely interested in the promoted product or service (Hatano et al., 2019; He, 2022). Moreover, AI enables dynamic ad placements that can adapt in real time based on user interactions, maximising the relevance of the content shown (Hsieh et al., 2011; Kumar et al., 2021). As a result, AI-driven ad targeting improves the efficiency of marketing campaigns and enhances return on investment (ROI) by increasing conversion rates and reducing wasted ad spend.

Managerial Strategies for AI Implementation in Marketing

Implementing AI in marketing requires a strategic approach to realise its full potential. Marketing leaders must focus on integrating AI technologies to align with broader business goals while ensuring that teams across the organisation are equipped to utilise these tools effectively (Hu, 2011; Chen et al., 2022). AI-driven strategies should enhance marketing processes' efficiency and support continuous improvement through data analysis and informed decision-making (Charles et al., 2024). Below are critical managerial strategies that provide a framework for successfully incorporating AI into marketing operations.

Data-Driven Decision Making

Incorporating content marketing and storytelling in a marketing strategy can help brands engage consumers by providing value beyond product offerings. Modern-day consumers expect more from brands than advertisements, including informative, entertaining, or inspiring content. Content marketing enables brands to meet this

demand by producing blogs, videos, articles, and social media posts that align with the brand's values and mission while addressing the target audience's interests (Roy et al., 2022). Storytelling is a critical component of content marketing that allows brands to humanise their identity by crafting narratives that resonate emotionally with consumers (Chen et al., 2023). Through stories that reflect the brand's history, values, or customer experiences, brands can create a lasting impression, which is vital for building brand loyalty. Therefore, an effective marketing strategy should include content marketing and storytelling to facilitate an ongoing conversation between the brand and its audience (Mochla et al., 2023). These elements help keep the brand prominent in consumers' minds and foster long-term engagement. As a result, these opportunities contribute to brand-building by adding depth to the brand's image, making it more relatable and memorable to consumers.

AI Integration into Marketing Processes

Seamless integration of AI into existing marketing workflows is crucial for maximising its potential. Marketers should view AI not as a standalone tool but as a complement to existing functions like content creation, customer relationship management (CRM), and analytics (Abebe et al., 2018; Abbasi & Esmaili, 2024). Marketing leaders must work closely with IT teams to embed AI technologies into processes where they can add the most value (Alammal & Al Mubarak, 2023; Sarath Kumar Boddu et al., 2022). For example, Davenport et al. (2020) explain that integrating AI into CRM systems can enhance customer interactions by providing personalised content and automating routine tasks such as lead nurturing and customer follow-ups. When fully integrated into core marketing operations, AI enhances the department's ability to operate efficiently, make data-backed decisions, and scale initiatives with minimal human intervention.

Cross-Functional Collaboration

Effective AI implementation in marketing requires collaboration across various departments, particularly between marketing, IT, and data science teams. Each team brings unique expertise (Jianjun, 2020). Marketers understand consumer behaviour and campaign objectives, IT professionals ensure the technical infrastructure can support AI tools, and data scientists can provide insights into data patterns and algorithm performance (Kavitha Devi & Venkatesh, 2010; Maharani & Gozali, 2015; Noor, 2022). Encouraging cross-functional collaboration ensures that AI technologies are implemented correctly and optimised to meet marketing goals. This approach helps marketers use AI tools to their fullest potential by translating technical capabilities into actionable marketing strategies (Setor, 2021; Lee, 2004).

In addition, fostering collaboration helps avoid silos, ensuring that AI initiatives align with overall business objectives.

Performance Monitoring and Optimisation

AI-driven marketing strategies require ongoing monitoring to assess their effectiveness and make necessary adjustments. Managers must establish key performance indicators (KPIs) that reflect short-term and long-term marketing goals (Cui, 2024). AI tools often assist in tracking these metrics, such as customer engagement, conversion rates, and ROI. Business managers can continuously monitor performance and identify areas where AI-driven campaigns succeed, as well as areas where improvements are needed (Durmus Senyapar et al., 2024; Li, 2024). Regular assessment allows businesses to fine-tune AI algorithms, ensuring that marketing initiatives remain agile and responsive to changing consumer behaviours or market trends (Meng & Beninsig, 2024; Lee et al., 2020; Senecha & Srivastava, 2022). The cycle of monitoring, feedback, and optimisation is critical for maintaining the relevance and efficiency of AI-powered marketing strategies.

Scalability and Flexibility

As AI continues to evolve, marketing strategies must remain scalable and flexible. AI solutions should be chosen with an eye toward future growth, ensuring they can adapt to increasing data volumes, expanding customer bases, and more complex marketing needs (Li et al., 2023; Fu et al., 2018; Shen et al., 2011). Managers must prioritise AI tools that can be easily scaled to handle more extensive operations or changing marketing landscapes. For example, AI can manage increased customer interactions, automate more complex tasks, and provide deeper insights through more extensive data sets as businesses grow. Flexibility is equally essential (Gallego et al., 2024; Lei et al., 2021). AI technologies should be adaptable enough to integrate with emerging marketing trends or shifts in consumer behaviour without requiring a complete overhaul of the system (Gore & Kumar Mishra, 2023; Yaiprasert & Hidayanto, 2023). A scalable and flexible AI strategy allows marketing teams to grow and innovate alongside the technology.

Change Management

Successful AI implementation requires effective change management to ensure smooth organisational adoption. Marketing teams may face resistance when integrating AI technologies, as employees might feel threatened by automation or need help interacting with new systems (Kaur et al., 2020). Managers must guide their

teams through this transition by fostering a culture that embraces innovation and providing comprehensive training on AI tools and their benefits (Tsai et al., 2006; Songsangyos et al., 2015). Clear communication about how AI will enhance, rather than replace, human roles can help alleviate concerns and encourage buy-in from staff (Alawadh et al., 2023; Liang et al., 2019). A structured change management process equips teams to adapt to AI technologies, enabling smoother implementation and long-term success in marketing initiatives.

Ethical Implications of Implementing AI in Marketing

The rise of AI in marketing presents multiple ethical implications that businesses must carefully navigate. While AI offers immense potential for improving efficiency, personalisation, and customer engagement, its use also raises critical concerns regarding the treatment of consumer data, fairness in decision-making, and the impact on individuals and society (Benjelloun & Kabak, 2024). This section explores the key ethical dilemmas associated with AI implementation in marketing, highlighting businesses' complexities in balancing innovation with ethical responsibility.

Data Privacy

Data privacy is one of the most pressing ethical concerns in AI-driven marketing. AI systems rely on large volumes of personal data to function effectively, including customer demographics, browsing history, purchase patterns, and sensitive information such as location data or social media activity (Makhlooqa & Mubarakb, 2024; Sun, 2023). This vast collection of personal data raises concerns about how marketers gather, store, and use this information (Qian & Gao, 2011). Many consumers are unaware of the extent of data collection and usage, which often leads to a breach of trust between them and businesses. In addition, the risk of data breaches or unauthorised access increases with AI since these systems often handle and process data at unprecedented scales (Xie & He, 2022; Yang et al., 2020). Consumer data becomes vulnerable when companies fail to ensure robust security measures, leading to potential financial and reputational damage (Zhang et al., 2020). Furthermore, the need for clear global standards on data privacy adds complexity. Different regions enforce varying levels of protection, leaving consumers exposed in jurisdictions with weaker regulations.

Bias and Discrimination

AI systems are susceptible to bias and discrimination, which presents significant ethical challenges in marketing. Since historical data trains AI algorithms, the AI

system can perpetuate or even amplify any biases present in that data (Leavy et al., 2020; Xu, 2022; Singhal et al., 2024). For example, if past marketing campaigns disproportionately targeted specific demographics, an AI system may continue to favour these groups, potentially leading to discriminatory outcomes (Schwartz et al., 2022; Liu, 2024). This tendency requires revision in product recommendations, pricing strategies, and ad targeting to prevent the exclusion or unfair treatment of marginalised groups (Sung et al., 2022). Biases may arise from the data and the AI algorithms' design. Human developers may unintentionally encode their biases into the system (Nazer et al., 2023; Zhang et al., 2022; Xiao, 2012). This unintentional bias can lead AI systems to make decisions reinforcing existing social inequalities, undermining fairness and inclusivity in marketing practices (Zhang, 2024; Naufal et al., 2017). The opacity of AI decision-making processes presents a challenge, making it difficult for practitioners to detect and address bias once embedded in the system.

Transparency

The issue of transparency in AI-driven marketing involves the opacity of algorithms and the decision-making processes behind AI applications. AI systems often function as “black boxes,” making decisions that users, consumers, or developers do not understand or explain (Felzmann et al., 2020; Buhas et al., 2024; Zhang & Huang, 2015). The lack of transparency can erode trust between consumers and companies, as individuals may feel uncomfortable or suspicious when they cannot understand how or why certain advertisements or content target them. In marketing, AI is frequently used to personalise customer experiences, but without transparency, consumers may not fully grasp the extent to which their data is being used or manipulated (Schmidt et al., 2020; Carloman et al., 2024; D′Aniello et al., 2016). Moreover, the complexity of AI algorithms makes it difficult to audit or hold companies accountable for the outcomes of their AI systems, especially when harmful or unintended consequences arise (Daneshjou et al., 2021; Olena et al., 2024). This challenge creates ethical issues in maintaining transparent customer relationships and ensuring AI systems operate clearly and understandably.

Manipulation and Autonomy

AI's ability to predict and influence consumer behaviour raises ethical concerns about manipulation and the erosion of consumer autonomy. AI-powered marketing strategies, particularly those using predictive analytics, can create highly targeted content designed to influence purchasing decisions, sometimes without the consumer being fully aware of the extent of the influence (de Marcellis-Warin et al., 2022; Elhajjar, 2024). While traditional marketing has always aimed to persuade

consumers, AI's capacity to process large amounts of data and predict behaviour with high accuracy introduces a new level of precision in shaping choices. This heightened precision can blur the line between persuasion and manipulation in marketing (Blauth et al., 2022; Papavasileiou & Tsadiras, 2011; Prada Segura & Velandia Daza, 2021). Consumers may find themselves guided toward decisions that align with a company's interests but may not be in their best personal interest (Rita et al., 2021). This influence can undermine autonomy, as individuals lose the ability to make independent choices based on unbiased information (Hacker, 2023; Patel & Modi, 2020; Wang & Zhong, 2024). The ethical challenge here revolves around how much impact is too much and where the boundary lies between acceptable marketing practices and manipulative tactics that exploit consumer vulnerabilities.

Consent and Informed Choice

The ethical issue of consent and informed choice in AI marketing arises from the often opaque data collection processes characterising AI systems. AI requires vast amounts of consumer data to function effectively. However, many consumers must know how much their data is collected, shared, or used (Farid et al., 2024; Eriksson et al., 2020). In many cases, consent must be adequately obtained or embedded within lengthy, unclear privacy policies that consumers may need to fully understand (Roy et al., 2024). The lack of explicit consent prompts questions about whether consumers are truly informed about how their personal information is used, especially when shared with third parties or applied to purposes beyond the initial agreement (Cohen, 2019; El Koufi & Belangour, 2023).

Moreover, the dynamic nature of AI systems, which continually adapt and evolve, allows data usage to change over time. This variability further complicates the issue of informed consent, as it becomes challenging for consumers to stay fully aware of how their data may be used in the future (Cohen & Slottje, 2024; Saadi & Azdimousa, 2024; Wang & Xu, 2011). The lack of transparency and clear communication can make consumers feel deceived or exploited, as they may need to fully understand or agree with how companies leverage their data in marketing strategies.

Job Displacement and Workforce Impact

Implementing AI in marketing raises significant ethical concerns regarding job displacement and the broader impact on the workforce. AI technologies are increasingly capable of automating tasks previously performed by human workers, such as data analysis, content creation, and customer service interactions (Neary et al., 2018; Fu & Fu, 2011; Trandafili et al., 2013). While this can lead to increased efficiency and cost savings for businesses, it also threatens to reduce the need for

human labour in specific roles (Lazaroiu & Rogalska, 2023). As AI continues to evolve, marketing professionals may find their skills becoming obsolete, leading to job losses or the need for significant retraining (Tiwari, 2023; Gao et al., 2023; Wang et al., 2022). This shift affects individual workers and has broader societal implications, such as increased unemployment and economic inequality (Tsai, 2024; Wahbeh & Abuelrub, 2021). The rapid pace of AI adoption in marketing can leave workers unprepared for the transition, creating ethical concerns about how businesses manage the human impact of technological advancements (Chen & Tang, 2022; Gupta & Chokshi, 2020; Wang & Lim, 2011). Furthermore, the rise of AI could lead to a devaluation of human creativity and strategic thinking as companies increasingly rely on machines to generate insights and solutions that were once the domain of human marketers.

CONCLUSION

The emergence of AI has significantly altered the marketing field by offering businesses numerous tools and capabilities to engage customers and optimise strategies. AI has become integral to modern marketing, with applications like predictive analytics, marketing automation, customer segmentation, and personalised experiences becoming standard practices. These AI-driven tools allow businesses to analyse vast amounts of consumer data in real time, making it easier to create targeted, relevant marketing campaigns that resonate with individual preferences. AI-powered chatbots and virtual assistants enhance customer engagement by providing 24/7 support and personalised interactions. Moreover, companies leverage AI to streamline processes, boost efficiency, and drive better decision-making through data-driven insights. To fully capitalise on AI's potential, businesses must implement robust managerial strategies, including integrating AI into marketing processes, promoting cross-functional collaboration, and ensuring scalability and flexibility to adapt to changing market dynamics. Continuous performance monitoring and optimisation are also critical for maintaining the effectiveness and fairness of AI systems as they evolve.

However, the rapid adoption of AI in marketing introduces a series of ethical considerations that marketers must carefully manage to maintain consumer trust and ensure fairness. For instance, data privacy is a crucial concern. AI systems often rely on large datasets containing personal information, which can lead to misuse or breaches. In addition, the risk of bias and discrimination in AI algorithms, where automated systems can perpetuate or amplify existing societal biases, raises serious concerns about fairness in marketing practices. Transparency is another critical issue since the decision-making processes of AI systems are often opaque. The lack of

clarity prevents consumers from understanding how companies use their data or why AI systems make confident decisions. The lack of transparency can undermine consumer trust, mainly when companies use AI systems to manipulate or influence consumer behaviour without consumers' full awareness. Marketers must also prioritise consent and informed choice to ensure consumers fully understand how their data will be used. Finally, the workforce impact of AI, including job displacement and the need for upskilling, poses additional ethical considerations. Balancing innovation and ethical responsibility is essential as businesses integrate AI into their operations. Achieving this balance enables businesses to deploy AI systems in ways that are transparent, fair, and respectful of consumer rights. Addressing these challenges allows companies to establish and maintain consumer trust and build sustainable, ethically sound AI-driven marketing strategies that benefit businesses and their customers.

Contributions to theories and practices in Artificial Intelligence (AI) in marketing, specifically concerning ethical implications and managerial strategies, have grown significantly in recent years.

(i) Theoretical Contributions

a) Ethical Frameworks for AI in Marketing Researchers have developed frameworks that identify the ethical dimensions of AI usage in marketing, including privacy, fairness, transparency, and accountability. These frameworks help outline the boundaries of ethical AI, ensuring that consumer rights are respected while leveraging AI capabilities. Researchers have advanced theories to differentiate between acceptable and manipulative practices, such as persuasive versus exploitative AI-driven personalisation, to provide a clearer understanding of ethical AI marketing; b) Theories on Consumer Perception and Trust

Researchers have proposed theoretical models to explore consumer perceptions of AI-driven interactions, focusing on trust, satisfaction, and perceived value. Understanding how transparency in AI operations affects trust has led to the concept of "trustworthiness heuristics," where clear communication of AI involvement can positively impact consumer behaviour. Research has expanded on the "uncanny valley" in AI communication, theorising how overly human-like AI interactions can evoke discomfort or mistrust, affecting brand perception. c) Value creation through AI-enhanced personalisation.

Researchers have developed theories around AI-driven customer journey mapping, demonstrating how AI can optimize consumer touchpoints for better experiences. Specifically, it includes understanding how predictive analytics can impact customer lifetime value and satisfaction, focusing on maintaining an ethical balance in personalization. Contribution to theories like "predictive personalisation ethics", exploring

when personalisation goes beyond helpful suggestions into unethical manipulation, has influenced guidelines for ethical data use;

(ii) Practical Contributions

Advances in AI-based segmentation have allowed marketers to target consumers with higher accuracy. Practical guidelines on ethical segmentation involve defining target groups and understanding the ethical impact of excluding or including specific demographics. Companies are creating managerial playbooks that outline when and how to use AI insights, focusing on ethical targeting, avoiding bias, and ensuring AI outputs are fair and non-discriminatory; d) Mitigating AI Bias Tools and strategies for identifying and correcting AI biases in marketing are now standard. Organizations have established best practices for bias audits and ongoing AI evaluation cycles to maintain ethical standards as AI systems evolve; e) Integrating human oversight with AI automation.

Managerial strategies increasingly focus on a hybrid AI-human approach, where AI handles data-driven insights while human experts make final decisions to balance efficiency and ethics.

Guidelines emphasise the role of human oversight in sensitive AI-driven decisions, such as pricing strategies or personalised content delivery, to prevent ethical breaches;

(iii) Emerging Ethical Considerations: a) AI and Consumer Autonomy

The debate on consumer autonomy and AI has led to developing autonomy-preserving marketing strategies. Specifically, it involves designing AI recommendations to frame them as options rather than definitive choices, thereby maintaining consumer control.

Managers develop strategies that encourage transparency in nudging practices by highlighting when an AI-driven suggestion is made and allowing consumers to opt in or out; b) The Role of AI in Sustainability and Ethical Consumerism AI is contributing to the rise of sustainable and ethical consumerism, where AI-driven analytics predict and influence consumer behaviour toward more sustainable choices. Organizations are establishing guidelines to ensure that AI-driven sustainability messages are accurate and not "greenwashed." Managers are increasingly using AI to monitor and report on sustainable marketing practices, ensuring ethical compliance with brand promises and consumer expectations.

(iv) Managerial Strategies for AI Implementation:
a) Training and Development

Practical contributions have seen the development of training programs for marketers to understand AI ethics and how to utilise AI tools responsibly. Specifically, it includes training on ethical decision-making processes in data analysis, targeting, and automation. Leadership strategies involve creating a cross-disciplinary AI ethics team within the organisation to oversee AI-related marketing initiatives; b) Adoption of AI Ethics Technology Introduction of AI ethics technology, such as platforms that assess the ethical implications of AI campaigns before launch. These technologies assist managers in identifying potential ethical pitfalls in segmentation, targeting, and personalisation. Companies are encouraged to implement algorithmic transparency tools where consumers can understand the logic behind AI-driven offers or ads, contributing to a more ethical and consumer-friendly approach.

By integrating these theoretical and practical contributions, companies aim to balance AI's innovative potential in marketing with ethical standards, fostering sustainable, fair, and consumer-centric business practices.

Exploring the future lines of investigation in AI for marketing, particularly around ethical implications and managerial strategies, is critical to navigating the evolving landscape. (i) There is a growing need to develop industry-specific ethical guidelines for AI in marketing. Research can focus on creating frameworks that consider unique challenges across industries (e.g., healthcare, finance, fashion) where AI usage in marketing has different ethical impacts. Further refinement of ethical AI frameworks that consider cultural and regional variations is essential. Specifically, it involves understanding how ethical considerations vary across global markets and adjusting AI strategies to align with these diverse ethical perspectives. (ii) Researchers are exploring predictive ethics, designing AI systems to forecast potential ethical dilemmas based on consumer data, and marketing tactics to provide a proactive approach to ethical AI management. Specifically, it involves developing AI systems that can anticipate not only consumer behaviour but also potential ethical breaches, enabling early intervention and strategic adjustments to prevent ethical issues; and (iii) Investigating how AI can ethically influence consumer behaviour towards sustainable and ethical choices is a crucial area. Explicitly, it examines the fine line between using AI to provide beneficial nudges that encourage ethical consumption and avoiding manipulative practices that could undermine consumer autonomy. Research could explore AI's capacity to analyse consumer data to predict ethical consumption patterns, creating models that encourage sustainable behaviour without exploiting consumer vulnerabilities.

By advancing these future lines of investigation, researchers and practitioners can better navigate the ethical complexities of AI in marketing, developing strategies that are not only innovative but also responsible, fair, and consumer-focused.

ACKNOWLEDGEMENT

We want to express gratitude to the Editor and the Arbitrators. They offered precious suggestions or improvements. The GOVCOPP Research Center of the University of Aveiro and UNIDCOM supported the authors.

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KEY TERMS AND DEFINITIONS

Artificial Intelligence: a set of technologies that enable computers to perform various advanced functions, including the ability to see, understand, and translate spoken and written language, analyse data, make recommendations, and more.

Brand Loyalty: refers to a consumer's enduring positive attitude towards a familiar brand and their commitment to consistently purchasing the brand's products and/or services despite any shortcomings, competitor actions, or shifts in the market environment.

Chatbots: a computer program that simulates husimulation with an end user.

Customer Engagement: the way a company creates a relationship with its customer base to foster brand loyalty and awareness.

Data Analytics: converts raw data into actionable insights.

Data-Driven: a strategic concept that can be applied to any business.

Ethical: the philosophical study of moral phenomena.

Personalisation: consists of tailoring a service or product to accommodate specific individuals.

Search Engine Optimization: the set of strategies to enhance and improve a website's positioning on organic results pages, disregarding sponsored links on search engines, generating conversions, be they a lead, a purchase, a form submission, scheduling an appointment, or others.

Social Identity Theory: the feeling of an individual to fit in (belong) to a specific social group (segments, categories).