

Artificial Intelligence in Marketing: Influence of AI ethical practices on consumers' brand trust. Proposal of a conceptual framework

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Abstract:

The study explores how Artificial Intelligence (AI) integrates into marketing practices which raises ethical challenges for consumers. AI has emerged as a transformative technology that can revolutionize marketing operations such as data driven decision-making, problem-solving, learning from data, and strategic brand management. This literature review examines how different types of AI applications in marketing (Mechanical AI, Thinking AI, Feeling AI, and Emotional AI) incorporated in marketing practices can influence brand trust, emphasizing the ethical considerations for consumers. By drawing on broad insights from academic research, we proposed a conceptual framework that is subject to further validation and refinement. This model analyzes the concepts of ethical AI in marketing practices (such as data consent, algorithmic explainability, and usage accountability) and their impact on consumer perception (sequentially privacy, transparency, and usage accuracy) and brand trust.

Keywords : Artificial Intelligence, Brand Trust, Ethics, Consumers

Résumé:

L'étude explore la manière dont l'Intelligence Artificielle (IA) est intégrée dans les pratiques marketing ce qui soulève des enjeux éthiques pour les consommateurs. L'IA a émergé comme une technologie qui va révolutionner les opérations marketing telles que la prise de décision concernant les données, la résolution de problèmes, et le management stratégique de la marque. Cette revue de littérature s'intéresse aux différents types d'IA en marketing (Mechanical AI, Thinking AI, Feeling AI, and Emotional AI) et la manière dont ils peuvent influencer la confiance dans la marque en prenant en compte l'éthique pour les consommateurs. Basé sur des recherches académiques, nous proposons un modèle conceptuel provisoire qui est en cours de validation. Ce modèle s'intéresse aux pratiques éthiques de l'IA en marketing (comme le consentement des données, l'explication des algorithmes et la responsabilité dans les usages) ainsi que leur impact sur la perception du consommateur (en particulier la confidentialité des données, la transparence et précision de l'utilisation) et sa confiance.

Mots-clefs : Intelligence Artificielle, Confiance dans la marque, Éthique, Consommateurs

Introduction

Marketing is transformed by the increasing leverage of Artificial Intelligence (AI) due to growing computing power, lower computing costs, the availability of big data, the advancement of machine learning algorithms and models (Huang & Rust., 2021). Recognizing AI and exploiting its strengths has become critical for experts in the marketing industry (Makridakis, 2017) because the recent advancement of generative AI has been reshaping marketing through creative tasks such as producing novel and realistic content with text, images, music or video across various domains (Banh & Strobel, 2023). AI systems and applications have become pervasive across industries and sectors (Campbell et al., 2020) and bring forth diverse opportunities for marketing strategy and actions (Huang & Rust., 2021b) as well as customer experience (Puntoni et al., 2021), brand-related outcomes (Bergner et al., 2023). However, the substantial growth of artificial intelligence in consumer data, the increasing level of emotional intelligence, AI-driven sales and data driven target advertising raise ethical challenges. Though AI's popularity and application in marketing are enormous, various challenges have emerged, such as social uncertainties, data violation, biased algorithms and ethical concerns (Saez-Ortuño et al., 2023). Practicing AI in marketing may result in unintended consequences, including perpetuating existing biases and inequalities (Anayat and Rasool., 2022). Marketing adopts AI to personalize customer service that creates the possibility to leak personal data, but consumers may feel uncomfortable with the level of intrusion into their private lives (Ghanbarpour et al., 2022). Moreover, AI presents considerable ethical concerns because it significantly increases a firm's collection, access, and use of consumer personal information (Kaplan & Haenlein., 2019), raising issues of privacy and cybersecurity. These ethical challenges could directly or indirectly impact consumer brand trust. Consumer trust in AI-enabled products depends on how the key ethical concerns (e.g., AI biases, cybersecurity, privacy, value alignment) are addressed (Ryan, et al., 2020). In turn, faster adoption of AI-enabled products depends on consumer trust in these products being collected, transmitted, and shared. Research indicates that consumers are more likely to trust AI advice when they perceive it to be reliable (Ameen et al., 2021). This finding highlights the importance of AI innovations in marketing and considering ethical aspects to enhance consumer trust in brands as well as ethical challenges for marketing. Our research question is as follows: What are the ethical stakes of AI in marketing and how do ethical AI marketing practices can influence consumer trust in brands?

1. ARTIFICIAL INTELLIGENCE AND ETHICAL STAKES IN MARKETING

AI is an umbrella term for algorithms, models, and technologies that enable machines to process information, learn from experience, adapt to changing environments, and make decisions or predictions, much like a human would (Russell & Norvig, 1995). This includes the capacity of machines to address challenges, strategize, learn, communicate, perceive, and act, each giving rise to unique AI subfields and methodologies (see appendix 1), including machine learning (ML), deep learning (DL), natural language processing (NLP), computer vision, and robotics (op.cité). Depending on the AI technologies used in marketing, the impacts are different. For example, generative AI producing tailored content to automate media production and LLMs like ChatGPT not only mimic human interaction but also assist human-intelligent question-answering systems (Feuerriegel et al., 2024). Another example, discriminative models (such as decision tree models), which are trained to predict probabilities of labels given observations (Foster, 2019).

AI has transformed the business strategies for marketing (Bag et al., 2022) and is playing a critical role in the analysis of customer data in marketing. Artificial intelligence (AI) in

marketing is defined “as the use of machine learning algorithms, natural language processing, and other AI technologies to personalize marketing messages, optimize campaigns, and improve customer engagement” (Nwachukwu and Affen, 2023, p.49). For Huang and Rust (2018), there exists 4 classifications of AI intelligences: Mechanical AI (marketing automation), Thinking AI (personalization), Feeling AI (market positioning) and Emotional AI (search engine optimization) which reflect an increasing sophistication in AI's capability to mimic human intelligence (see appendix 2). Backed by both theoretical and practical evidence (Huang et al., 2019), these forms of intelligence affect AI's role in marketing and its economic implications. These four types of AI are incorporated into marketing, transforming it from traditional to data-driven, personalized services and emotional responsiveness. In the realm of AI-driven marketing, it is crucial to apply ethical principles to ensure that cutting-edge technologies are employed responsibly, fostering trust and preventing exploitation.

Originally, ethics was associated with behaviour in accordance with morals but also with norms, tradition and laws (Lavorata, 2007). Ethics involves learning what is right or wrong and then doing the right thing but "the right thing" is not nearly as straightforward as conveyed (Deigh., 2010). The terms “ethics” and “morality”, coming from the same etymology, often cause some confusion but for others (Comte-Sponville, 1994; Lavorata, 2007), there is a difference between ethics and morality, and this distinction is generally accepted because it clarifies both concepts (Crane & Matten, 2004). Though the study of ethics is an ancient tradition of human beings, rooted in religious, cultural belief, and philosophical beliefs, the study of business ethics is more recent (Tsalikis et al., 2012) and it refers to standard code of conduct and compliance system that usually involve decisions that can be judged right or wrong by customers (Ferrell et al., 2019). Ethical dilemmas often arise in business ethics from ambiguities in what constitutes "right" versus "wrong" and Tahssain-Gay and Cherré (2012) have defined it “*as a problem, a situation, or an opportunity that obliges people to choose between several poor solutions or unethical decisions*” (p.19). Ethical decision making is a complex process influenced by various individuals and situational factors and type of ethical conflict that may impact ethical beliefs and decision-making behavior (Ford et al., 1994).

The idea of "doing the right thing" is further complicated by AI, as it requires managing extensive data, ensuring transparency, and addressing biases within algorithms. Drawing parallels to Deigh's (2010) discussion on business ethics, AI in marketing also encounters two broad ethical concerns: (1) unethical uses of AI, such as invasive data collection, manipulation of consumer behaviors through deceptive personalization, or exploiting vulnerabilities in consumer decision-making; (2) moral mazes of AI-driven marketing management, which includes day-to-day ethical dilemmas like balancing personalization with privacy, avoiding algorithmic discrimination, managing conflicts of interest, and ensuring that AI-driven decisions align with consumer fairness and brand values. Responsible AI usage requires frameworks that prioritize consumer trust, transparency, and fairness. This aligns with ethical principles that dictate clear guidelines for the science of conduct within AI technologies. Violations of data privacy, such as unauthorized sharing or mismanagement, can erode consumer trust and harm a brand's reputation.

2. INFLUENCE OF ETHICAL AI MARKETING PRACTICES ON BRAND TRUST

When focusing on AI marketing, we can find different types of AI that are progressively being utilized in key marketing tools such as targeted advertising, personalization, content generation, ad optimization, marketing automation, and search engine optimization (see appendix 3). These

tools primarily rely on consumer data while overlooking consumer data regulation policies, resulting in ethical concerns. The dominance of AI in marketing raises concerns of how consumer personal data is collected, processed and used. Other researchers have shown the negative effects of increased AI use on consumers, including privacy concerns, dehumanization, and unauthorized access to personal data (Lobschat et al., 2021; Puntoni et al., 2021).

Ethical issues surrounding AI extend beyond data collection, impacting how information is used to manipulate consumer behavior and decision-making, both online and offline. This manipulation, often achieved through targeted algorithms that exploit behavioral biases and addictions, raises significant concerns about consumer autonomy and trust. For brands, these practices can erode brand trust if consumers perceive the use of AI as deceptive or exploitative. Ethical AI should not depend only on established principles because insufficient transparency and the unethical application of AI systems can result in consumer mistrust and doubt regarding brands (Mittelstadt, 2019). However, ensuring transparency about AI limitations, such as offering the option to redirect to human agents, can strengthen brand trust (Grewal et al., 2020). Consumers' perceptions of AI can greatly impact brand trust, because AI increasingly integrates into customer interactions and marketing approaches, through automation and chatbots and even if chatbots have made considerable progress, it is challenging to tackle intricate or subtle inquiries (Chen et al., 2024). Marketing that utilizes AI is largely dependent on consumer historical data, which frequently brings up issues regarding data privacy. Companies that focus on consumer privacy and adhere to data protection laws (such as GDPR) can foster increased trust among the customers (Kietzmann et al., 2023). On the other hand, incidents of data breaches or the improper handling of consumer information can significantly harm a brand's reputation, and the trust placed in it. The first to study brand trust were Morgan and Hunt (1994), who defined brand trust as the adherence to a set of principles that the brand communicates to consumers, ensuring honesty and fairness. For Doney and Cannon (1997), brand trust is based on the consumer's belief that the brand has specific qualities that make it consistent, competent, honest, responsible. For others (Delgado-Ballester et al., 2003), brand trust refers to the consumer's sense of confidence in their dealings with the brand, based on the belief that the brand is reliable and cares for the needs and well-being of the consumer (see appendix 4)

When consumers perceive that marketing practices are ethically implemented, it leads to trust, which is a pillar for building customer relationships, leading to brand identity, greater brand loyalty and longer customer relationships (Chaffey & Ellis-Chadwick, 2022). When a brand prioritizes ethical principles in its brand elements, conveying brand credentials can foster consumer trust. Gelder (2005) states that brand identity is a collection of aspects that aim to convey the brand, including brand background, brand principles, and the purpose underlying its long-term ambitions. When brand trust is formed, it indicates that consumers hold the brand in high value and, accordingly, brand trust is likely to enhance consumers' pride in identifying with the brand. (Bergami & Bagozzi, 2000; Kuenzel & Halliday, 2008). Consequently, enhanced brand trust leads to increased loyalty, with consumers more likely to make repeat purchases and engage positively with the brand. Research investigating the link between the ethical practices of sellers and customer loyalty revealed that ethical behavior fosters trust and satisfaction, subsequently boosting loyalty (Mansouri et al., 2022). When consumers feel satisfied with products and services with ethical consideration, it leads to loyal customers that will often recommend the brand, promoting the brand through word-of-mouth and defending it in public forums. Ethical marketing practices contribute to increased brand loyalty (Lee & Jin, 2019). When organizations emphasize transparency and responsibility, they not only cultivate trust but

also enhance their brand reputation and encourage lasting customer loyalty. Additionally, trust, accountability, and transparency increase customer recommendation, and it serves as a means for organizations to address their customers' issues, assist their decisions, and evaluate the performance of their business partners (Lawer & Knox, 2006).

3. PROPOSAL FOR A CONCEPTUAL FRAMEWORK

The ethics of artificial intelligence is a growing field of research that questions the moral and social implications of AI systems. This interdisciplinary field explores the issues of justice, transparency, accountability and confidentiality. Jobin et al. (2019) showed there exists a convergence around six key ethical principles: transparency, fairness, equity, non-maleficence, accountability and confidentiality. Ethical AI marketing practices encourage marketers to follow the ethical guidelines and AI principles because it amplifies the scope of action, consumer autonomy, freedom, and self-responsibility (Hagendorff, 2020). Leveraging AI applications in marketing drives social well-being and environmental good (Hermann, 2022). In our model, we propose three ethical AI marketing practices that are grounded in three fundamental elements: data consent, algorithm explainability and usage accountability. Integrating Artificial Intelligence into marketing practices necessitates a comprehensive understanding of how various components interact to influence consumer perception and ultimately brand trust, with a priority on ethical practices.

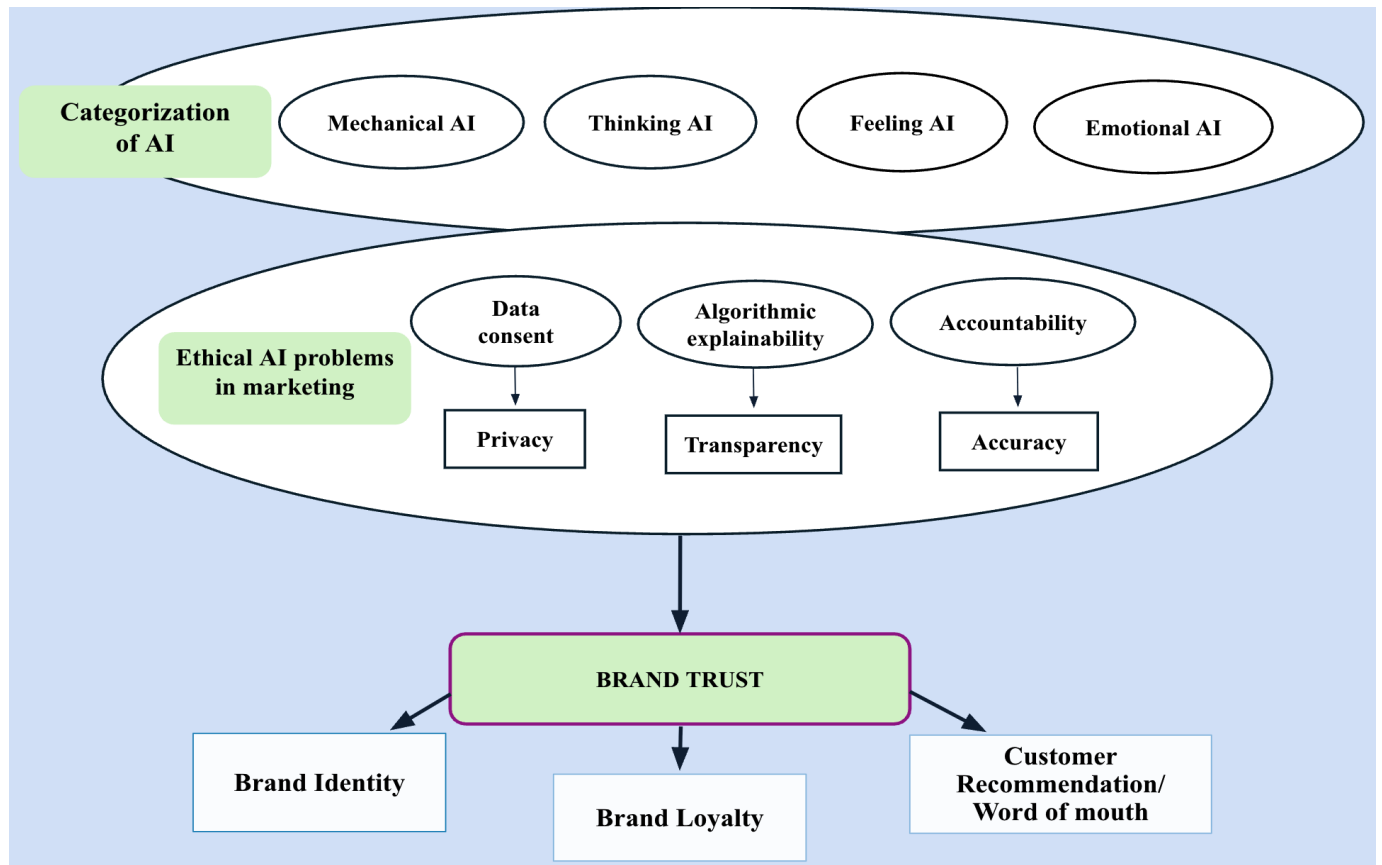
In ethical marketing, particularly concerning data consent, it is crucial to understand the purpose behind the collection and use of the data. Since AI systems analyze consumer data to create personalized experiences, marketers face the challenge of adhering to regulations and meeting consumer expectations regarding data security and data consent. Data should be accurate, current, and appropriate for its intended use, and companies must be capable of demonstrating this¹. The ethical use of AI in marketing requires transparency regarding data usage, which means that consumers should be informed about how their data is utilized and the algorithms that influence consumer interactions with brands. But it also supposes better understanding of algorithmic processes. Algorithm explainability is often referred to as explicability or interpretability in the context of AI, but it is also the ability to clarify how an AI model or algorithm reaches its decisions or outputs in a way that humans can understand easily. Barocas and Selbst (2016) point out the ethical dilemmas associated with data-driven decision-making, emphasizing the importance of algorithmic transparency. AI might be designed for universal usage in a responsible way and ensure no discrimination against any people, or groups, based on gender, race, culture, religion, age or ethnicity². Trust-building efforts should focus on ensuring transparency, accountability, and the safety of AI systems³. Prioritizing data consent, transparency in algorithms, and usage accountability are crucial for fostering positive consumer perceptions. Such perceptions significantly impact brand trust, which subsequently promotes brand loyalty and brand recommendation. By committing to ethical standards, brands can successfully utilize AI technologies to improve their marketing initiatives while establishing and preserving consumer trust. We propose the following conceptual framework (see figure 1).

¹ <https://cy.ico.org.uk/media2/migrated/2013559/big-data-ai-ml-and-data-protection.pdf>

² <https://hal.science/hal-01724307/file/cerna%202017%20machine%20learning.pdf>

³ <https://royalsociety.org/~media/policy/projects/machine-learning/publications/machine-learning-report.pdf>

Figure 1. Conceptual Framework



Conclusion

Our objective was to make a literature review to analyze and implement the ethical practices in marketing. This enables us to examine different types of AI applications in marketing (Mechanical AI, Thinking AI, Feeling AI, and Emotional AI) incorporated in marketing practices, AI ethical practices and their influence on variables such as brand trust. Nonetheless, the widespread implementation of AI in marketing prompts essential inquiries about how comfortable consumers are with the methods used to collect, process, and utilize their data.

Our study proposes a conceptual model that is under development, emphasizing positive customer perception including privacy, transparency and usage accuracy, impact on brand trust and consequently increases brand identity, brand loyalty and customer recommendation. Other studies (Roman, 2003), examining the influence of ethical sales practices on customer satisfaction, trust, and loyalty towards the company, indicated that while ethical behavior had a direct effect on customer satisfaction, its impact on loyalty was mediated by trust. We think that some types of AI (Feeling AI and emotional AI) are more interesting to study and can be linked to specific AI ethical problems in marketing but for the moment, we can't justify it. Our next studies will be to carry out a qualitative study among experts then customers in order to check the variables included in our conceptual framework and identify others.

References

- Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior*, 114, 106548.
- Anayat, S. and Rasool, G. (2022). Artificial intelligence marketing (AIM): connecting the dots using bibliometrics, *Journal of Marketing Theory and Practice*, 32 (1), 1-22.
- Bag, S., & Pretorius, J. H. C. (2022). Relationships between industry 4.0, sustainable manufacturing, and circular economy: Proposal of a research framework. *International Journal of Organizational Analysis*, 30(4), 864-898.
- Banh, L., & Strobel, G. (2023). Generative artificial intelligence. *Electronic Markets*, 33(1), 63.
- Bergner, A. H., Hildebrand, C., & Häubl, G. (2023). Machine talk: How verbal embodiment in conversational AI shapes consumer–brand relationships. *Journal of Consumer Research*, 50(4), 742-764.
- Bishop, C. M., & Nasrabadi, N. M. (2006). *Pattern recognition and machine learning* (Vol. 4, No. 4, p. 738). New York, Springer.
- Brown, T. B., Mann, B., Ryder, N., Subbiah, M., Kaplan, J., Dhariwal, P., ... & Amodei, D. (2020). Language models are few-shot learners. *Advances in Neural Information Processing Systems*, 33, 1877–1901.
- Bergami, M., & Bagozzi, R. P. (2000). Self-categorization, affective commitment and group self-esteem as distinct aspects of social identity in the organization. *British journal of social psychology*, 39(4), 555-577.
- Bawazir, F. C., Harianto, E., & Azizurrohman, M. (2024). Building Brand Loyalty: The Role of Brand Communication, Brand Identity, and Brand Experience Mediated by Brand Trust. *Jurnal Aplikasi Manajemen*, 22(3).
- Campbell, C., Sands, S., Ferraro, C., Tsao, H.-Y., & Mavrommatis, A. (2020). From data to action: How marketers can leverage AI. *Business Horizons*, 63(2), 227–243.
- Chaffey, D., & Ellis-Chadwick, F. (2022). *Digital marketing: Strategy, implementation and practice* (8th ed.). Pearson Education Limited.
- Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81–93.
- Chen, J., Liu, Z., Huang, X., Wu, C., Liu, Q., Jiang, G., ... & Chen, E. (2024). When large language models meet personalization: Perspectives of challenges and opportunities. *World Wide Web*, 27(4), 42.
- Chaudhuri, A. and Holbrook, M. (2002), “Product-class effects on brand commitment and brand outcomes: the role of brand trust and brand affect”, *Journal of Brand Management*, 10 (1), 33-58.
- Comte-Sponville, A. (1994). *Valeur et vérité. Études cyniques*. PUF : Paris
- Crane A., & Matten D. (2004). *Business Ethics*. Oxford University Press
- Deigh, J. (2010). *An introduction to ethics*. Cambridge University Press.
- Doney, P. M., & Cannon, J. P. (1997), An examination of the nature of trust in buyer-seller relationships, *Journal of Marketing*, 61(2), 35–51.
- Ferrell, O. C., Harrison, D. E., Ferrell, L., & Hair, J. F. (2019). Business ethics, corporate social responsibility, and brand attitudes: An exploratory study. *Journal of Business Research*, 95, 491-501.

- Feuerriegel, S., Hartmann, J., Janiesch, C., & Zschech, P. (2024). Generative ai. *Business & Information Systems Engineering*, 66(1), 111-126.
- Foster, D. (2019). *Generative Deep Learning: Teaching Machines to Paint, Write, Compose, and Play*. O'Reilly Media.
- Fui-Hoon Nah, F., Zheng, R., Cai, J., Siau, K., & Chen, L. (2023). Generative AI and ChatGPT: Applications, challenges, and AI-human collaboration. *Journal of information technology case and application research*, 25(3), 277-304.
- Ford, R. C., & Richardson, W. D. (1994). Ethical decision making: A review of the empirical literature. *Journal of Business Ethics*, 13, 205-221.
- Ghanbarpour, T., Sahabeh, E. and Gustafsson, A. (2022). Consumer response to online behavioral advertising in a social media context: the role of perceived ad complicity, *Psychology and Marketing*, 39 (10), 1853-1870.
- Ghodeswar, B. M. (2008). Building brand identity in competitive markets: a conceptual model. *Journal of product & brand management*, 17(1), 4-12.
- Hallowell, R. (1996). The relationships of customer satisfaction, customer loyalty, and profitability: An empirical study. *International Journal of Service Industry Management*, 7(4), 27-42
- Hagendorff, T. (2020). The ethics of AI ethics: An evaluation of guidelines. *Minds and Machines*, 30(1), 99–120.
- Hartmann, J., Huppertz, J., Schamp, C. P., & Heitmann, M. (2019). Comparing automated text classification methods. *International Journal of Research in Marketing*, 36(1), 20–38.
- Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49(1), 30–50.
- Hunt, S. D. (2019). The ethics of branding, customer-brand relationships, brand-equity strategy, and branding as a societal institution. *Journal of Business Research*, 95, 408-416.
- Hermann, E. (2022). Leveraging artificial intelligence in marketing for social good—An ethical perspective. *Journal of Business Ethics*, 179(1), 43-61.
- Jobin, A., Ienca, M., & Vayena, E. (2019). The global landscape of AI ethics guidelines. *Nature Machine Intelligence*, 1(9), 389-399.
- Jordan, M. I., & Mitchell, T. M. (2015), Machine learning: Trends, perspectives, and prospects. *Science*, 349(6245), 255-260.
- Kahneman, D., Rosenfield, A. M., Gandhi, L., & Blaser, T. (2016). Noise: How to overcome the high, hidden cost of inconsistent decision making. *Harvard business review*, 94(10), 38-46.
- Kietzmann, J., Paschen, J., & Treen, E. (2023). Data privacy and consumer trust in the age of AI: A review and research agenda. *Journal of Consumer Marketing*, 40(3), 290-308.
- Kuenzel, S., & Vaux Halliday, S. (2008). Investigating antecedents and consequences of brand identification. *Journal of Product & Brand Management*, 17(5), 293-304.
- Kotler, P., & Pfoertsch, W. (2006). *B2B brand management*. Berlin, Heidelberg: Springer Berlin Heidelberg.
- Lavorata, L. (2007). Proposition d'une échelle de mesure du climat éthique dans l'entreprise : une application au domaine de la vente en B to B. *Recherches et Applications en Marketing*, 22(1), 1-24.
- Lawer, C., & Knox, S. (2006). Customer advocacy and brand development. *Journal of Product & Brand Management*, 15(2), 121-129.
- Lee, J. Y., & Jin, C. H. (2019). The role of ethical marketing issues in consumer-brand relationship. *Sustainability*, 11(23), 6536.

- Lam, S., Ahearne, M., Hu, Y. and Schillewaert, N. (2010), "Resistance to brand switching when a radically new brand is introduced: a social identity theory perspective", *Journal of Marketing*, 74 (6), 128-146.
- Lobschat, L., Mueller, B., Eggers, F., Brandimarte, L., Diefenbach, S., Kroschke, M., & Wirtz, J. (2021). Corporate digital responsibility. *Journal of Business Research*, 122, 875–888.
- LeCun, Y., Bengio, Y., & Hinton, G. (2015), Deep learning, *Nature*, 521(7553), 436-444.
- Ma, Z., Liang, D., Yu, K. H., & Lee, Y. (2012). Most cited business ethics publications: Mapping the intellectual structure of business ethics studies in 2001–2008. *Business Ethics: A European Review*, 21(3), 286–297
- Makridakis, S. (2017). The forthcoming Artificial Intelligence (AI) revolution: Its impact on society and firms. *Futures*, 90, 46–60.
- Mansouri, H., Sadeghi Boroujerdi, S., & Md Husin, M. (2022). The influence of sellers' ethical behaviour on customer's loyalty, satisfaction and trust. *Spanish Journal of Marketing-ESIC*, 26(2), 267-283.
- Mittelstadt, B. D. (2019). Principles alone cannot guarantee ethical AI. *Nature Machine Intelligence*, 1(11), 501–507.
- Mnih, V., Kavukcuoglu, K., Silver, D., Rusu, A. A., Veness, J., Bellemare, M. G., ... & Hassabis, D. (2015). Human-level control through deep reinforcement learning. *Nature*, 518(7540), 529–533.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
- Mustak, M., Salminen, J., Plé, L., & Wirtz, J. (2021). Artificial intelligence in marketing: Topic modeling, scientometric analysis, and research agenda. *Journal of Business Research*, 124, 389–404.
- Nwachukwu, D., & Affen, M. P. (2023). Artificial intelligence marketing practices: The way forward to better customer experience management in Africa (Systematic Literature Review). *International Academy Journal of Management, Marketing and Entrepreneurial Studies*, 9(2), 44-62.
- Picard, R. W. (2000). Toward computers that recognize and respond to user emotion. *IBM Systems Journal*, 39(3.4), 705–719.
- Pitardi, D., Meloni, D., Olivo, F., Loprevite, D., Cavarretta, M. C., Behnisch, P., Brouwer, A., Felzel, E., Ingravalle, F., Capra, P., Gili, M., Pezzolato, M., & Bozzetta, E. (2021). Alexa, she's not human but... Unveiling the drivers of consumers' trust in voice-based artificial intelligence. *Psychology & Marketing*, 38(4), 626–642.
- P. Becerra, E., & Badrinarayanan, V. (2013). The influence of brand trust and brand identification on brand evangelism. *Journal of Product & Brand Management*, 22(5/6), 371-383.
- Puntoni, S., Walker Reczek, R., Giesler, M., & Botti, S. (2021). Consumers and artificial intelligence: An experiential perspective. *Journal of Marketing*, 85(1), 131–151.
- Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation–augmentation paradox. *Academy of management review*, 46(1), 192-210.
- Ricoeur, P. (1990). *Soi-même comme un autre*. Paris: Le Seuil.
- Roman, S. (2003). The impact of ethical sales behaviour on customer satisfaction, trust and loyalty to the company: An empirical study in the financial services industry. *Journal of Marketing Management*, 19(9-10), 915-939.

- Rose, J. M. (2007). Corporate directors and social responsibility: Ethics versus shareholder value. *Journal of Business Ethics*, 73(3), 319–331.
- Russell, S., & Norvig, P. (2016). *Artificial Intelligence: A Modern Approach (3rd ed.)*. Pearson Education.
- Ryan, M., & Stahl, B. C. (2020). Artificial intelligence ethics guidelines for developers and users: clarifying their content and normative implications. *Journal of Information, Communication and Ethics in Society*, 19(1), 61-86.
- Saez-Ortuño, L., Sanchez-Garcia, J., Forgas-Coll, S., Huertas-García, R. and Puertas-Prat, E. (2023), “Impact of artificial intelligence on marketing research: challenges and ethical considerations”, *Philosophy of Artificial Intelligence and Its Place in Society, IGI Global*, 18-42.
- Salles, A., Evers, K., & Farisco, M. (2020). Anthropomorphism in AI. *AJOB neuroscience*, 11(2), 88-95.
- Schmidhuber, J. (2015), Deep learning in neural networks: An overview, *Neural Networks*, 61, 85-117.
- Sullivan, Y-W & Fosso Wamba, S. (2022). Moral Judgments in the Age of Artificial Intelligence, *Journal of Business Ethics*, 178, 917–943.
- Sutton, R. S., & Barto, A. G. (1998). *Reinforcement learning: An introduction*. MIT Press.
- Tsalikis, J., & Fritzsche, D. J. (2012). Business ethics: A literature review with a focus on marketing ethics. *The Journal of Business Ethics: Celebrating the first thirty years of publication*, 8, 718-725.
- Vaswani, A., Shazeer, N., Parmar, N., Uszkoreit, J., Jones, L., Gomez, A. N., Kaiser, Ł., & Polosukhin, I. (2017). Attention is all you need. *Advances in Neural Information Processing Systems*, 30, 5998–6008.
- Vitell, S. J., & Muncy, J. (2005). The Muncy–Vitell consumer ethics scale: A modification and application. *Journal of Business Ethics*, 62(3), 267–275.
- Van Gelder, S. (2003). *Global brand strategy: unlocking brand potential across countries, cultures & markets*. Kogan Page Publishers.
- Wines, W. A. (2008). Seven Pillars of Business Ethics: Toward a Comprehensive Framework. *Journal of Business Ethics*, 79, 483-487.
- Yang, Y., Lu, X., & Liu, H. (2018). Emotional artificial intelligence: The role of affective computing in customer interactions. *Journal of Marketing Research*, 55(3), 342–355.

Appendix 1. Different tools of AI

AI Type	Authors	Definition
Generative AI	(Feuerriegel et al., 2024),(Fui-Hoon Nah et al., 2023)	AI systems that can generate new content, including text, images, music, or videos, often by learning patterns from large datasets. It is frequently used in creative fields.
Machine Learning (ML)	Bishop (2006), Jordan & Mitchell, (2015)	A subset of AI that allows machines to learn from data and improve over time without explicit programming.
Large Language Models (LLM)	Vaswani et al. (2017), Brown et al., (2020)	Language Models (LLMs) have emerged as cutting-edge artificial intelligence systems that can process and generate text with coherent communication and generalize to multiple tasks.
Deep Learning	LeCun et al. (2015), Schmidhuber, (2015)	A subset of machine learning that uses neural networks with many layers (deep neural networks) to analyze large volumes of unstructured data such as images, sound, and text.
Reinforcement Learning	Sutton & Barto (1998), Mnih et al., (2015)	A type of machine learning where an agent learns to make decisions by performing actions in an environment and receiving feedback in the form of rewards or penalties.

Appendix 2. Categorization of AI

Mechanical AI	AI systems designed to perform repetitive, rule-based tasks with precision and speed, mimicking the functionality of machines or human tools without emotional intelligence (Huang & Rust, 2021).
Thinking AI	Thinking AI is data- and analytical-based. It has the ability to process and analyze large amounts of data (i.e., big data) and learn from them for personalized output (Huang & Rust,2021), (Russell & Norvig, 2016).
Feeling AI	Feeling AI, such as voice analytics, conducts real-time analysis about call center agents' conversations with customers, and provides suggestions about the best way to respond (Huang & Rust, 2021), Picard, 2000), (El Kaliouby & Robinson, 2011).
Emotional AI	AI that goes beyond recognizing and responding to emotions to fully comprehend emotional context, adapting responses in real-time to enhance user engagement and empathy. Often used in healthcare, education, and entertainment.Yang et al. (2018), Rangel et al. (2020).

Appendix 3. AI in marketing practices

AI in Marketing Practices	Authors	Tools Used	Types of AI Used	Outcomes in Marketing
Targeted Advertising	Ameen, N., Tarhini, A., Reppel, A., & Anand, A., (2021)	Algorithmic clustering, Social listening tools, Personalized advertising platforms	Mechanical AI	Enhanced precision in targeting consumers, tailored messaging, increased ad engagement.
Personalization	Mustak, M., Salminen, J., Plé, L., & Wirtz, J., (2021)	Data analytics, Customer segmentation tools, Personalized recommendation engines	Thinking AI	Tailored customer experiences, improved brand engagement, higher customer satisfaction.
Positioning (segment resonance)	Huang, M. H., & Rust, R. T., (2021)	Sentiment analysis ,analyse voice tone and emotion, social media management.	Feeling AI	Customer understanding, enhanced interaction and optimized consumer engagement and relationalization benefits.
Ad Optimization	Huang, M. H., & Rust, R. T., (2021)	Deep learning models, Predictive analytics, Computational creativity tools	Thinking AI,	Optimized ad performance, higher conversion rates, personalized ad experiences.
Marketing Automation	Kietzmann, J., Paschen, J., & Treen, E., (2023).	Natural language processing (NLP), AI chatbots, Email Marketing Automation, Automated Content Creation, Virtual Assistants (e.g., Siri, Google Assistant), Campaign Management Software	Mechanical AI, Thinking AI	Streamlined marketing workflows, reduced operational costs, increased efficiency in execution, improved customer satisfaction and loyalty
Search Engine Optimization (SEO)	Puntoni, S., Walker Reczek, R., Giesler, M., & Botti, S., (2021).	NLP tools, emotional AI systems for sentiment analysis, technical SEO automation tools	Thinking AI, Emotional AI, Mechanical AI	Better understanding of customer feelings, improved brand perception. Stronger alignment with user intent. Improved website ranking, optimized content delivery.

Appendix 4. Definitions of Brand Trust

Authors	Definition
Chaudhuri & Holbrook (2001)	Willingness to rely on the ability of the brand to perform its stated function.
Delgado-Ballester et al. (2003)	Brand trust is a unidimensional conceptualization that completely ignores the motivational aspects associated with the concept, which may limit the conceptual richness of the phenomenon.
(Morgan & Hunt (1994)	Adherence to a set of principles that the brand communicates to consumers, ensuring honesty and fairness.
Andaleeb, 1992; Doney & Cannon, 1997; Larzelere and Huston, 1980).	It is based on the consumer's belief that the brand has specific qualities that make it consistent, competent, honest, responsible and so on, which is in line with the research on trust.
Casalo et al., (2007)	Brand trust can be discussed as a cognitive component which may induce emotional response, namely brand affect.