International Journal of Innovation Studies

ISSN:2096-2487 | E-ISSN:2589-2975

MARKETING IN THE AGE OF AI: "OPPORTUNITIES, INTERVENTIONS, AND IMPACTS ON SOCIETY"

Mrs. Sivaranjani. S
aishu26ranjani@gmail.com, Research Scholar (Full-Time), Department of Commerce, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chennai -600 044.

Ms. R. Rubini Mahamaya,
rubinimahamaya.2002@gmail.com, Research Scholar (Full- Time), Department of Commerce, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chennai -600 044.

Dr. Y. Kalaivani,
kalaivani.y@sdnbvc.edu.in, Research Guide and Supervisor, Associate Professor, Department of Commerce, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chennai -600 044.

ABSTRACT:
Marketing is changing due to the role of artificial intelligence (AI) on both the strategic and operational structures of organizations. As the literature shows, AI is significantly enhancing marketing efficiency, through improved customer segmentation, strategic personalization, and more effective decision-making, while simultaneously raising significant challenges in areas of ethics, transparency, and social influence. Synthesized from an in-depth review of both conceptual and empirical research (2020–2025), this research article identifies broad themes such as AI-led digital transformation, integrating sustainability, human and AI collaborative intelligence, and the impact of generative AI on creative marketing processes. These results indicate that, in addition to offering operating efficiencies, AI potential must be guided by ethical principles to avoid bias, job loss, and privacy breaches. The research winds up by advocating for subsequent research agendas that focus on the co-evolution of AI technology and human governance to achieve optimal innovation, trust, and societal benefit in marketing practice.

Keywords: Artificial intelligence, digital transformation, integrating sustainability, human and AI collaborative intelligence, generative AI.

INTRODUCTION:

In today's digitally connected world, Artificial Intelligence (AI) is transforming marketing into a data-driven and highly adaptive discipline. Marketing is inherently reliant on manual effort, intuition, and siloed tools to navigate the constantly evolving and complicated behavior of consumers, especially when taking into account the sophisticated consumer that has emerged from the last 20 years. Now there are AI-enabled solutions that marketers can leverage to ingest immense quantities of data, identify emerging trends, and able to do all of this quickly and

accurately than ever before. Hence AI is being established as a strategic facilitator of modern marketing that will elevate efficiencies, personalization, and competitiveness.
The convergence of marketing sciences and machine learning technology signals an emergent intelligent era of interactions using algorithms as smart partners. The dual characteristics of AI are its power to create value while simultaneously amplifying risks that makes it essential to study marketing in the age of AI from a balanced perspective. Scholars highlight that AI works most effectively when augmenting human judgment rather than replacing it, underscoring the importance of collaborative intelligence. At the same time, research also cautions against ethical risks, algorithmic bias, and over-reliance on automation that could compromise consumer trust and equity. While business applications of AI to customer lifetime value and creating return on investment are recognized in the profession, the combined, vast implications of an AI-driven future, remain an area of academic and scholarly relevance.

STATEMENT OF PROBLEM:

The rise of Artificial Intelligence (AI) is changing the game in marketing by allowing companies to leverage data-driven insights, predictive analytics, and tailored strategies at scales previously unseen. Such advancements create considerable potential for efficiency, innovation, and competitive edge, but they also create far-reaching and complex challenges that have not yet been fully addressed. Concerns surrounding consumer privacy, data security, algorithmic bias, ethical responsibility, and behavioural manipulation have led to robust dialogue among academics, professionals, and policymakers. At the societal level, increasing reliance on AI-informed marketing activations raise issues regarding autonomy, fairness, equitable access, as well as trust implications for the businesses and consumers in the long-term.
The fundamental issue is there has not been an account that holistically connects and assesses both the transformational benefits and unanticipated social harms with regard to AI in marketing. Addressing this issue is necessary for responsible, ethical marketing practices to develop, maintaining standards of transparency and sustainability in a world defined by AI.

RESEARCH GAP:

While there has been a great deal of attention given to AI for its potential to transform marketing by enabling personalization, automation, and predictive mechanisms, the literature has predominantly pursued research on technical applications and business performance. While existing studies identify opportunities AI creates for businesses in the short-term, the longer-term degree of societal impact from AI-led marketing (e.g., digital exclusion, extreme commercialization of consumer choices, erosion of human decision-making, etc.) has not been sufficiently addressed. Studying regulation and governance of AI in marketing is also scarce in the literature. These findings lay bare the issue of imbalance in scholarship, citing the need for a unified perspective that encompasses not only the opportunities of AI-led marketing, but also its interventions and broader societal implications in order to consider responsible and sustainable practices.

RESEARCH OBJECTIVES:

- **i.** To explore opportunities created by AI in marketing.
- **ii.** To assess the role of AI-driven interventions in marketing practices.
- **iii.** To examine the social and ethical impacts of AI in marketing.

LITERATURE REVIEW:

1. **Grewal, D.,& et al (2025),** "How generative AI Is shaping the future of marketing"

Key highlights:

- Generative AI (Gen AI) is changing the face of marketing by enabling a range of activities, from creation, critique, and summarization of many different types of content from text, images, videos, and audio.
- Gen AI enables end-to-end marketing processes for campaign and content ideation, copywriting, product design, social media content, personalized offerings, and techniques to engage with customers.
- This paper articulates a framework of four quadrants that show the trade-offs of what input is generated through Gen AI vs the input which enhances human augmentation for effective delivery of output.
- Gen AI enhances marketing creativity, productivity, and personalization, and it also generates new avenues for customer engagement and operational efficiency.
- Many provide a list of challenges when employing Gen AI, including how to maintain ethical considerations, human oversight, authenticity, and the broader impact on society, while also calling for more research in regard to the strategies and implications of wider adoption of Gen AI.

2. **Farina, M., & et al (2025)** "Ethical considerations and policy interventions concerning the impact of generative AI tools in the economy and in society"

Key highlights:

- Here the commentary is focused on generative AI models (like ChatGPT), which are driven by machine learning in natural language processing.
- The authors point out that these models can have a positive economic impact but can be detrimental if blindly implemented in society.
- The reflections show AI's impact to cross ethical, sociological, and political dimensions, warranting policy interventions.
- Goals of such policies must be to reduce adverse effects and ensure that social equality, transparency, and pluralism are maintained.
- A virtue ethics approach is suggested as a possible framework for other interventions intended to further human flourishing**.**

3. **Odeibat, A., S.(2024), "**The impacts of artificial intelligence on the future of marketing and customer behaviour"

Key highlights:

- **Multidisciplinary Framework:** The study drafted a framework that analyzes the four main dimensions of AI: levels of intelligence (i.e., task automation versus context awareness), task classification (numeric versus non-numeric data handling), integration into robotic systems, and ethical implications.
    - ≈ AI in Marketing Mix (5 Ps): AI can have a far-reaching potential for the betterment of numerous aspects of marketing-related strategies:

- **Planning and Strategy:** AI aids in segmentation, targeting, and positioning (STP) of customers and aims at finding profitable customer segments mostly in the finance and retail sectors.
- **Product Management:** AI analytics assess how well the product design aligns with preferences, helps to make suggestions that are customized (e.g., points of interests), and tailor-makes the offering.
- **Price Management:** AI provides for dynamic pricing strategies, allowing for rapid tweaking based on competitors' prices and customer selections (e.g., using multi-armed bandit algorithms).
- **Place Management:** Via solutions, including cobots, drones, and IoT for order tracking, AI is managing the distribution channel. AI also promotes customer interaction through service robots.

4. **Bakator, Mihalj et al (2024), "**The three pillars of tomorrow: How Marketing 5.0 builds on Industry 5.0 and impacts Society 5.0?"

Key highlights:

- This systematic review analyzed 48 theoretical studies to present a synergetic and theoretical model into how Marketing 5.0 influences Society 5.0 through Industry 5.0.
- AI is clearly identified as a foundational technology for all three pillars.
- **Marketing 5.0 (Personalized and Ethical):** It stresses on the use of AI, data analytics, and digital tools for highly personalized and ethically responsible marketing endeavors. Essential dimensions included real-time customer analytics (MARK-R1), predictive marketing of consumer behavior (MARK-R2), green marketing (MARK-R10), and social responsibility messaging (MARK-R11).
- **Industry 5.0 (Human-Centred and Sustainable Production):** This area refers to human-robot collaboration (cobots, IND-R3), as well as the integration of sustainability into industrial processes. Core dimensions include renewable energy usages (IND-R7), waste reduction (IND-R8), and blockchain applications for supply chain transparency (IND-R6).
- **Society 5.0 (The Human-Centered Vision):** This refers to an overarching vision with the aim of enhancing the well-being of society through the application of technologies (AI, IoT) into public services and governance. Core dimensions are advanced traffic surveillance (SOC-R1), access to telemedicine (SOC-R3), personalized e-learning (SOC-R5), efficiency in e-government (SOC-R12), and ethical AI implementation (SOC-R15).
- **Model and Scenarios:** The work produced a theoretical model that integrated elements from the three concepts and developed a theoretical map of potential Society 5.0 development scenarios, treating 2025 as an important moment to observe.

5. **Emon M.M.H., & Khan T (2024),** "A Systematic Literature Review on Sustainability Integration and Marketing Intelligence in the Era of Artificial Intelligence"

Key highlights:

- 65 research articles published from 2018 to 2023 were included in Systematic Literature Review (SLR) focusing on artificial intelligence (AI), sustainable integration, and marketing intelligence.

- The end result is that artificial intelligence-a key role and an instrument in balancing economic objectives with social responsibility requirements and environmental sustainability.

- AI-derived insights and data enhance decision-making, customer engagement, and create a growing pool of marketing impact through social and environmental outcomes.

- The paper elaborates on the ethical considerations and inherent challenges involved in using AI for marketing, such as algorithmic bias and data privacy.

- Asia provided the largest geographical distribution of studies (43.28%). There is a clear upward trend in research, with 46.27% of reviewed studies conducted in 2023.

6. **Aldoseri, A., & et al.,(2024).** "AI-Driven Innovation in Digital Transformation: Essential Foundations and Sector Influence,"

Key highlights:

- This study delves into the association between AI and innovation and how these two elements fundamentally support sustained growth and operational excellence in digital transformation. Five fundamental pillars are defined, namely:
  - ≈ monitoring performance measurement
  - ≈ continuous learning and innovation
  - ≈ data analytics and insights
  - ≈ predictive analytics
  - ≈ innovative product development.
- AI indeed transforms any industry. Be it healthcare (for diagnostics and patient data processing), finance (for optimizing trading and fraud detection), education (for personalized learning pathways), or transportation (for route optimization).
- An innovative mindset is to be maintained: "Perpetual Beta", defining that AI tools are perpetually being tested, learned, and evolved, with strategies continually requiring readjustment.

7. **Herman E.(2022)** "Leveraging Artificial Intelligence in Marketing for Social Good—An Ethical Perspective"

Key highlights:

- The article examines the ethical complications and tensions involved in the use of AI in marketing, considering a multi-stakeholder lens with a particular focus on tensions about the balance between business and social good.

- It develops a position based on AI ethics principles including beneficence (social good), non-maleficence (prevention of harm), autonomy, justice and explicability, and applies them to AI in the marketing context.
- It articulates socio-ethical issues including privacy issues, AI displacement of jobs, environmental concerns, and potential mental health concerns raised by AI.
- It also proposes an ART (Actors, Resources, Time) framework as a possible way to resolve tensions, and also make recommendations about practice for firms in practice managing the tension between efficiency and personalization and their ethical and social good obligations.
- The paper concludes by suggesting a leveraging AI in marketing not simply for commercial global economic benefits, but potentially as a mechanism for addressing societal good and environmental implications, suggesting to companies consider ethics when designing the deployment of AI.

8. **Ming-Hui Huang & Roland T. Rust (2022),** "A framework for collaborative Artificial Intelligence (AI) in marketing"

Key highlights:

- The article constructs a conceptual model for the collaboration of human intelligence (HI) and artificial intelligence (AI).
- In this model, AI first supports human marketing practitioners by completing data-heavy, repetitive tasks, before transitioning into more independent roles as the technology develops.
- The conceptual model presents distinctions of hybrid intelligence at varying levels of intelligence between AI and HI, such as processing data, generating insights, and ultimately deciding within a marketing context, thereby maximizing marketing outcomes.
- Particular emphasis is placed on human-AI transferability within the context of communication to ensure human marketers leverage AI-generated insights within marketing pathways that are meaningful.
- Finally, the article acknowledges challenges including negotiating a transition of humans to AI processes, ethical implications, and establishing trust in hybrid collaboration marketing systems.

9. **Ho, L.T., & ET AL.,(2022),** "Artificial Intelligence and Firm Performance: Does Machine Intelligence Shield Firms from Risks?"

Key highlights:

- Firms that implemented AI technologies were more resilient in their stock performance during the COVID-19 pandemic, as evidenced by AI stocks experiencing less severe negative changes than traditional stocks, particularly in the first month of the pandemic.
- By the third month of the pandemic, AI stock returns were rebounding more quickly than conventional stocks, demonstrating that AI adoption may allow firms to better absorb market shocks.

- Utilizing Interrupted Time-Series Analyses (ITSA) on panel data, this study compares AI and conventional firms comparing periods pre- and post the pandemic's onset, concluding that AI adoption was a factor sustaining firm long-term performance in the context of uncertainty.
- AI deployment helps reduce firm risk exposure and builds firm capabilities and potential for sustainable growth even amid volatility.
- The findings indicate that AI represents a significant strategic resource to bolster a firm's resilience and competitive advantage due to external risks and threats such as a pandemic, as was experienced during the COVID-19 pandemic.

10. Chintalapati, S., & Pandey, S.K. (2021),"Artificial intelligence in marketing: A systematic literature review"

Key highlights:

- It has landed into the inquiry of looking into 57 suitable documents in a systematic manner.
- It has categorized the application of artificial intelligences in marketing into 19 sub-functional themes or activity levers and five main topics.
  - ≈ Integrated Digital Marketing
  - ≈ Content Marketing
  - ≈ Experiential Marketing
  - ≈ Marketing Operations
  - ≈ Market Research.
- The analysis found 170 important cases of application in which AI has leveraged marketing initiatives.
- The least interest was indicated in content marketing whereas integrated digital marketing is the most studied topic.
- The most emerging applications of AI in marketing are found to be experiential marketing.

11. C. Campbell & et al.,(2020) " From data to action: how marketers can leverage AI"

Key highlights:

- The nine components of strategic marketing are thoroughly examined, and then the application of AI in each is covered.
- In real time, AI helps marketers turn massive tidal waves of unstructured data into actionable insights and plans.
- The technological foundation of artificial intelligence operations is machine learning, which makes it possible to mine massive datasets for insightful information about customer behavior and enhance marketing operations capability.
- These would include sufficiently solid data systems, human capital consisting of a mix of strategic managers and data scientists, and suitable IT architecture to enable efficient utilization.

12. **Wamba-Taguimdje et al.,(2020)**, "Influence of Artificial Intelligence (AI) on firm performance, specifically focusing on the business value of AI-based transformation projects".

Key highlights:

- The business value assessment of AI-based transformation projects was made through an examination of 500 mini case studies released by authorized AI solution vendors.
- At the process level, three main process-level effects-automation, information and transformation- are supported by AI in bringing business operational enhancements.
- Increased skills in using AI improve performance in the administrative, marketing, and financial aspects of the organization.
- Three key components need to work together for effective deployment of AI-its management capabilities, personal expertise in AI, and flexibility in infrastructure with regard to AI (scalable infrastructure, algorithms, and rich data sets).

13. **De Bruyn & et al (2020)** "Artificial Intelligence and Marketing: Pitfalls and Opportunities"

Key highlights:

- **Research themes:** The paper identifies ten broad research themes in AI marketing such as sentiment analysis, electronic word-of-mouth understanding, customer satisfaction measurement, brand management, enhancing customer trust and loyalty, service innovation, relationship management, and marketing strategic applications.
- **Opportunities:** AI provides significant opportunities such as customer insight, efficiency, personalization, improved decision making, and marketing abilities to innovate and improve customer experiences and delivery market performance.
- **Pitfalls and Challenges:** The manuscript cautions about pitfalls around knowledge creation and knowledge transfer in AI implementation. It points out risks around bias, ethical implications, loss of control of automated decisions, transparency issues, and challenges in turning AI insights into actionable strategies in marketing.
- **Research Agenda:** The authors advocate for sustained additional investigation on neglected aspects in the literature about AI deployment such as ethical responsibility in AI use, human-AI engagement, managing bias in AI use, and productive articulation of knowledge transfer between AI systems and marketing practitioners to both maximize AI, marketing potentials and mitigate risk.

14. **Dan Dumitriu & Mirona Ana-Maria Popescu (2020),** "**Artificial Intelligence Solutions for Digital Marketing**"

Key highlights:

- AI is rapidly changing digital marketing by automating complex processes of targeting and customization and providing a higher level of intelligence and overall efficiency.
- This paper presents a sequential model consisting of four steps of utilizing AI solutions and tools to implement successful keyword research and SEO approaches to drive traffic to websites.

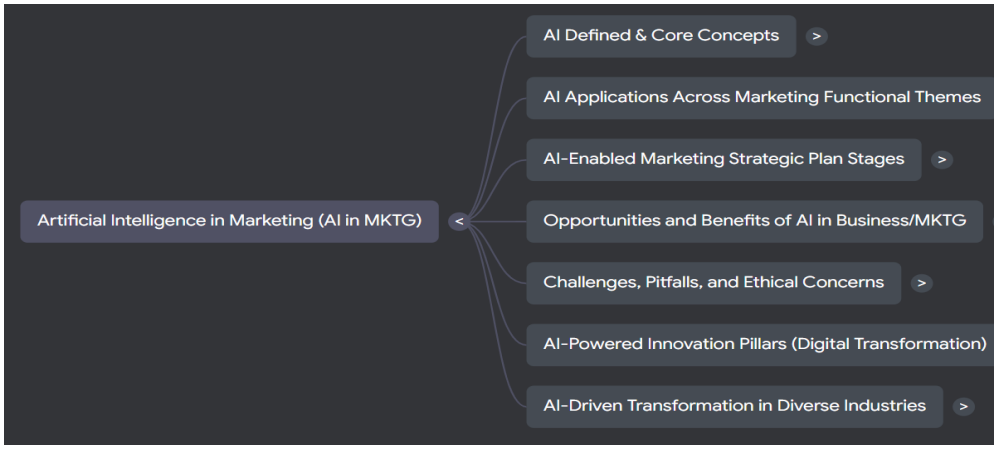
- AI utilizes machine learning algorithms to identify and analyze patterns within data which enables ongoing learning and enhancement of marketing activity and decision-making.
- Real-world practical applications of AI in the digital marketing domain include content creation, personalized recommendations, automated email marketing, and programmatic advertising.
- AI boosts marketing productivity by automating repetitive tasks, providing customer insights to make informed decisions, and enabling various intelligent marketing approaches to sustain business growth.

15. **Thomas Davenport & et al (2019),** "How Artificial Intelligence (AI) will significantly change the future of marketing"

Key highlights:

- The article presents a framework that looks at AI's marketing impact, examining layers of intelligence types, task types (creative vs routine), and whether the AI is embedded in a physical robot. The authors underline notable policy and ethical challenges including — privacy, bias, and transparency
- AI is anticipated to radically alter marketing strategies and consumer behavior by analogous to humans and augmenting human marketers instead of completely replacing them.
- Core marketing tasks that will gain from AI include: personalization, predictive analytics, engagement with customers, and automation of non-creative and routine tasks.
- The research agenda calls for future research on the ways AI impacts the dynamics between consumers and firms, and a call to theorization and development of new theories in marketing through the lens of AI capabilities.

THEORETICAL FRAMEWORK OF THE STUDY: -



The conceptual framework for **"Marketing in the Age of AI: Opportunities, Interventions, and Impacts on Society"** draws upon a multidisciplinary synthesis of ideas from computer science, strategic management, marketing theory, psychology, sociology, and ethics that raise Artificial Intelligence (AI) to the level of a basic and transformative construct. Understanding AI in marketing begins with defining it as the creation of artificial agents that will suggest or

perform marketing actions aimed at achieving the best desired outcomes through tasks that imitate human intellects—namely, problem-solving or decision-making. The transition to a data-driven, automated, and "intelligent marketing" model is a natural outcome of AI's ability to process larger amounts of data that would be beyond the capacity of human processors. At a high level of abstraction, a theoretical distinction can be made between Analytical AI and Generative AI (Gen AI); Analytical AI, the classical form of AI, analyzes past structured data to predict future outcomes, such as customer churn or recommend products. Gen AI is a new frontier in artificial intelligence that creates new content (text, images, code) by predicting the next item in a sequence, using existing data to inform the output that will be in the next direction (often disambiguating unstructured data).

AI capabilities can also be classified using models that describe emerging levels of intelligence. Most notably, distinctions can be made across levels of mechanical AI (automating the execution of all tasks that are routine and repetitive), thinking AI (the ability to process data for the purposes of analytics and personalization), and feeling AI (analyzing human emotions to help provide meaning to human interactions). Additionally, there is also a distinction between task automation wherein AI use standardized rules to operate and the level of goal or higher order functioning which entails awareness of context where machines "learn how to learn" and apply what they learned to new situations. The technical underpinnings for these capabilities is Machine Learning (ML), which occurs under three paradigms; supervised learning where an algorithm learns from labelled data to make predictions, unsupervised learning which looks for hidden patterns in unlabelled data (e.g., clustering data for customer segmentation), and reinforcement learning where an algorithm learns from trial and error and takes actions in the environment with the goal of maximizing rewards which is a method used for dynamic pricing and ad optimization.

This novel capacity leads to enhanced organizational resilience, which informs the theory that AI functions as a buffer to risk, with studies indicating AI-adopted firms have faster stock price recovery and were less negatively impacted than non-AI-adopted firms due to market shocks such as COVID-19 pandemic.

There are significant theoretical considerations for utilizing AI in marketing despite these opportunities, mainly surrounding the human-AI interface. A primary barrier is the dichotomy between explicit knowledge that is codifiable, and tacit knowledge that is institutional and influenced by the human "know-how" that is difficult for AI to process, even though it is critical in marketing and sales. This consideration leads to a theoretical perspective that AI is better suited to inform human intelligence (HI) rather than replace it.

This collaborative intelligence model anticipates a mutually beneficial arrangement that strategically utilizes the strengths of AI (speed, scale, and processing large amounts of data) and human agents (context, empathy, creativity, and strategic judgment). This collaborative process is dynamic and can be interpreted by what we call the "AI - HI augmentation - replacement duality."

Lastly, the widespread application of AI requires strong ethical and societal frameworks. In the discussion surrounding ethics and AI, several key principles have emerged, including beneficence (advancing well-being), non-maleficence (doing no harm), autonomy (protecting human decision-making), justice (dealing fairly and without bias), and explicability (which include transparency and accountability). One of the critical ethical issues is algorithmic bias,

as AI systems can replicate and amplify existing human bias present in training data, resulting in discriminatory outcomes in pricing, advertising, and customer segmentation. Since Gen AI can generate credible misinformation and engagingly produce questions of ownership and privacy, the implications are particularly urgent. These risks are reasons for human augmentation and strong governance to ensure AI is designed and used responsibly.

At the macro level, AI in marketing is positioned within the larger theoretical confluence of Marketing 5.0, Industry 5.0 and Society 5.0. Society 5.0. This directly link to an element of using AI for social or environmental good, where AI's analytical capacity can be leveraged to foster sustainable consumption, reduce carbon foot print by optimizing supply chains or enhance press to meet Sustainable Development Goals (SGD), and assist in balancing economic goals with environmental and social responsibility.

CONCLUSION:

The combined evidence from recent studies unmistakably suggests that AI is not a complementary tool anymore but a force of change in marketing that affects tasks from content generation to predictive analytics and customer interactions. Companies successfully adopting AI witness upgraded performance and resilience, particularly during times of uncertainty such as the COVID-19 pandemic. Yet, these opportunities are complemented by urgent practical and ethical challenges—most pointedly data privacy, transparency of algorithms, and the requirement for responsible governance of AI. Sustainable marketing innovation requires a hybrid model in which collaboration between humans and AI draws out the best from each and is ever mindful of social good, equity, and constant worker development. As generative AI and deeper analytics continue to blur the lines between automation and creativity, marketing's future depends on paradigms that balance innovation, ethical consistency, and societal outcomes.

FUTURE RECOMMENDATIONS:

For Practitioners:

- ✓ Deploy frameworks of strategic AI throughout marketing functions (for example, market research, communications).
- ✓ Dedicate investment to training the workforce to promote collaboration together with AI and collective intelligence.

For Organizations:

- ✓ Tackle algorithm traceability, bias, and data privacy to build consumer trust.
- ✓ Use AI analytics for data-driven decision making that encourages social and environmental sustainability alongside goal commercialization.

For Researchers:

- ✓ Expand understanding of human-AI collaboration and tacit knowledge transfer through AI explainability.
- ✓ Initiate empirical research studies on consumer psychology specifically associated with trust and resistance to AI and create and test frameworks that quantitatively measure social impacts on the labour force.

For Policymakers:

- ✓ Set regulations maximizing benefits to society while decreasing risk, purposeful safeguards on data privacy and innovation, and accountability balanced against agile and informed trajectory.
- ✓ Cultivate cooperative ecosystems and national re-skilling initiatives toward an augmenting workforce through AI.

REFERENCES:

1. *Davenport, T., Guha, A., Grewal, D. et al. How artificial intelligence will change the future of marketing. J. of the Acad. Mark. Sci. 48, 24–42 (2020).* https://doi.org/10.1007/s11747-019-00696-0
2. *Farina, M., Yu, X. &Lavazza, A. Ethical considerations and policy interventions concerning the impact of generative AI tools in the economy and in society. AI Ethics 5, 737–745 (2025).* https://doi.org/10.1007/s43681-023-00405-2
3. *Farina, M., Yu, X. &Lavazza, A. Ethical considerations and policy interventions concerning the impact of generative AI tools in the economy and in society. AI Ethics 5, 737–745 (2025).* https://doi.org/10.1007/s43681-023-00405-2
4. *Grewal, D., Satornino, C.B., Davenport, T. et al. How generative AI Is shaping the future of marketing. J. of the Acad. Mark. Sci. 53, 702–722 (2025).* https://doi.org/10.1007/s11747-024-01064-3
5. *Hermann, E. Leveraging Artificial Intelligence in Marketing for Social Good—An Ethical Perspective. J Bus Ethics 179, 43–61 (2022).* https://doi.org/10.1007/s10551-021-04843
6. *Odeibat, A., S.(2024). The impacts of artificial intelligence on the future of marketing and customer behaviour. Cross-cultural management journal XXVI (1), 19-34.*https://doi.org/10.70147/c261934
7. *Emon M.M.H.,. A Systematic Literature Review on Sustainability Integration and Marketing Intelligence in the Era of Artificial Intelligence. Review of Business and Economics Studies. 2024;12(4):6-28. DOI:* 10.26794/2308-944 *X 2024-12-4-6-28*
8. *Chintalapati, S., & Pandey, S. K. (2021). Artificial intelligence in marketing: A systematic literature review. International Journal of Market Research, 64(1), 38-68. https://doi.org/10.1177/14707853211018428 (Original work published 2022)*
9. *Dan Dumitriu, Mirona Ana-Maria Popescu, Artificial Intelligence Solutions for Digital Marketing, Procedia Manufacturing,Volume 46,2020,Pages 630-636,ISSN 2351-9789,* https://doi.org/10.1016/j.promfg.2020.03.090. *(*https://www.sciencedirect.com/science/article/pii/S2351978920309689*)*
10. *Serge-Lopez Wamba-Taguimdje, Samuel FossoWamba, Jean Robert Kala Kamdjoug, Chris Emmanuel TchatchouangWanko; Influence of artificial intelligence (AI) on firm performance: the business value of AI-based transformation projects. Business Process Management Journal 2 November 2020; 26 (7): 1893–1924.* https://doi.org/10.1108/BPMJ-10-2019-0411.
11. *MihaljBakator , Dragan Ćoćkalo *, VesnaMakitan , SanjaStanisavljev , Milan Nikolić University of Novi Sad, Technical Faculty "Mihajlo Pupin", ĐureĐakovića bb, 23000, Zrenjanin, Republic of Serbia The three pillars of tomorrow: How Marketing*

5.0 builds on Industry 5.0 and impacts Society 5.0? Heliyon, Volume 10, Issue 17, e36543 September 15, 2024 https://doi.org/10.1016/j.heliyon.2024.e36543 .

12. *Ming-Hui Huang, Roland T. Rust, A Framework for Collaborative Artificial Intelligence in Marketing, Journal of Retailing, Volume 98, Issue 2, 2022, Pages 209-223, ISSN 0022-4359,* https://doi.org/10.1016/j.jretai.2021.03.001 *(*https://www.sciencedirect.com/science/article/pii/S0022435921000142*).*
13. *Colin Campbell, Sean Sands, Carla Ferraro, Hsiu-Yuan (Jody) Tsao, Alexis Mavrommatis, From data to action: How marketers can leverage AI, Business Horizons, Volume 63, Issue 2, 2020, Pages 227-243, ISSN 0007-6813,* https://doi.org/10.1016/j.bushor.2019.12.002. *(*https://www.sciencedirect.com/science/article/pii/S0007681319301624*)*
14. *Aldoseri, A., Al-Khalifa, K. N., &Hamouda, A. M. (2024). AI-Powered Innovation in Digital Transformation: Key Pillars and Industry Impact. Sustainability, 16(5), 1790.* https://doi.org/10.3390/su16051790.
15. *Ho, L. T., Gan, C., Jin, S., & Le, B. (2022). Artificial Intelligence and Firm Performance: Does Machine Intelligence Shield Firms from Risks? Journal of Risk and Financial Management, 15(7), 302.* https://doi.org/10.3390/jrfm15070302 .