

How Artificial Intelligence Shapes Consumer Perception: A Bibliometric Analysis on Global Trend

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ABSTRACT

Over the past decade, artificial intelligence (AI) has significantly transformed consumer-brand interactions, influencing perceptions, engagement, and decision-making. This study investigates global research trends on AI's impact on consumer perception through bibliometric analysis of 241 documents from the Scopus database (2008–2025), using VOSviewer with co-occurrence analysis techniques that include cluster analysis, overlay visualization, and density visualization. Results indicate a sharp rise in publications since 2020, with key contributions from the United States, China, and India. Seven thematic clusters emerged, covering topics from digital experience to consumer trust and AI ethics. A notable trend is the shift from traditional AI techniques toward generative AI applications, such as chatbots, ChatGPT, and virtual influencers. The study also identifies research gaps in privacy, ethics, and AI anthropomorphism. Findings offer a roadmap for future research and strategic development in AI-driven consumer engagement.

INTRODUCTION

Over the last decade, artificial intelligence (AI) technology has undergone significant transformation in various sectors, including marketing, creative industries, and customer service. The implementation of artificial intelligence is not only instrumental in significantly improving operational efficiency, but also has a profound impact on consumer perception and behavior. AI applications have changed consumer behavior by influencing personality, attitude, engagement, decision-making and trust (Jain et al., 2024).

Recent studies have also shown that the application of AI in product recommendations, chatbots, and content personalization is changing the dynamics of interaction between brands and consumers. AI technologies increase ease of use in online retail environments, which has a positive impact on customer perceptions. This ease of use increases perceived control, concentration, and cognitive enjoyment, leading to a sense of awe that mediates the relationship between customer perception and purchase intention (Lopes et al., 2025). AI can optimize marketing processes by personalizing interactions and generating predictive data about consumer behavior. This leads to improved consumer communication, higher satisfaction, and a competitive advantage for businesses (Reshmidilova et al., 2024; Jayakumar et al., 2024).

On the other hand, the use of AI in services such as robot baristas or virtual influencers brings challenges regarding consumer acceptance. Factors such as anthropomorphism (human-like traits) and trust in technology play a key role in determining the success of AI adoption. The integration of generative AI and anthropomorphism can improve the quality of interactions between consumers and brands by creating a more personalized and relevant dialogue. AI designed with human elements can build stronger emotional connections, increase trust, and strengthen consumer loyalty (Zhang, Y., 2024).

Despite the benefits, there are concerns about data privacy and ethical implications of AI in consumer interactions. These concerns may negatively impact the consumer experience and acceptance of AI technologies (Reshmidilova et al., 2024; Xie, R. 2021). Furthermore, the use of AI with a high degree of anthropomorphism can trigger the uncanny valley effect, where consumers feel uncomfortable because AI is considered being too human-like (Kim et al., 2024).

Consumer perception toward AI is also influenced by the transparency of the algorithm and the ethics of its use. Research by Candrian and Scherer (2024) revealed that the term "AI" creates a more positive response to system errors than the term "algorithm", as long as it is accompanied by a clear explanation. Meanwhile, AI involvement in corporate social responsibility (CSR) or advertising has the potential to decrease brand engagement if consumers perceive it as inauthentic (Aljarah et al., 2024).

Previous researchers who have explored this topic include Hermann, E. (2022) researching the increased humanization and emotional intelligence of AI applications (anthropomorphism) which has the potential to positively (satisfaction of belongingness needs) and negatively (dehumanization) affect consumers' personal and social lives; research by Teepapal, T. (2025) on AI-

driven personalization that increases consumer trust and their perception of service usability and encourages consumer engagement on social media; to research by Sarin, A. B. (2025) and Govindaraj et al., (2025) that describe how AI technologies such as machine learning and predictive analytics can revolutionize consumer decision-making by providing personalized recommendations and insights. While academic interest in this topic has been steadily increasing in recent years, there is still a gap in the overall mapping of global trends and evolving research directions.

The purpose of this research is to examine global trends and themes in studies on how AI influences consumer perceptions. To achieve this, a bibliometric analysis is applied, which uses statistical methods to review publications and identify key developments in the field (Donthu et al., 2021; Riaman et al., 2022; Marvi & Foroudi, 2023; Saputro et al., 2023). The findings are expected to provide useful insights for researchers, industry practitioners, and policymakers in designing adaptive strategies in today's dynamic digital era.

THEORETICAL REVIEW

Artificial Intelligence in Modern Marketing

Artificial Intelligence (AI) has become deeply embedded in everyday life, taking on new roles across sectors such as industry, healthcare, transportation, and education, as well as many other domains closely connected to society. It is widely regarded as a key force driving socio-economic transformation. Furthermore, AI fosters the advancement of cutting-edge technologies in various academic fields, serving as an essential tool that supports groundbreaking research (Jiang et al., 2022). AI has also transformed the retail sector by improving customer-company interactions through the use of interactive digital platforms (Kaplan & Haenlein, 2020).

Artificial intelligence technology presents innovative new ways to simplify and optimize marketing processes, personalising interaction with the target audience, and increasing the overall effectiveness of marketing campaigns. Therefore, the application of artificial intelligence helps companies strengthen communication with consumers through the use of predictive data, ensuring a competitive advantage and high customer satisfaction (Reshmidilova et al., 2024). Lopes et al. (2025) emphasized that the ease of digital interaction created by AI can shape consumers' positive perceptions of brands through a smoother and more enjoyable online shopping experience.

Recent studies reveal a substantial increase in scholarly interest in the relationship between AI and consumer perception, particularly since 2020, with bibliometric analyses showing that early research emphasized technological foundations and methods that shaped the field's rapid growth across disciplines. This theoretical grounding also clarifies why marketing-related themes dominate recent literature, highlighting the transition of AI from primarily back-end systems to consumer-facing applications that directly influence perceptions and interactions.

Consumer Perceptions in the Age of Artificial Intelligence

Consumer perception is an individual's way of creating an image of a product being offered. Consumer perception can be influenced by needs/desires, past experiences, the experiences of those around them, advertising, and marketing techniques (Arifin et al., 2023). Rapid technological advancements have significantly changed the field of marketing over the past few decades. According to Teepapal (2025) data-driven marketing has undergone a gradual evolution, leveraging technological advancements such as data analytics, machine learning, web analytics, social media analytics, virtual reality, augmented reality, and chatbots for customer support. These advancements have allowed marketers to refine their strategies and customize their responses to meet the needs of consumers.

In the digital age, AI plays a significant role in shaping this perception through chatbots, recommendation systems, and content personalization. Business organizations adopt AI-powered chatbots along with virtual assistants to increase operational speed and maintain continuous customer support functions. AI-driven real-time analysis of large-scale data enables companies to provide both personalized interactions and predictive assistance to their customers. By lowering operational costs through AI-powered support, businesses are able to offer quicker services, ultimately enhancing the overall quality of service delivery. Teepapal (2025) found that AI-based personalization on social media drives consumer engagement and increases trust in services.

This theoretical basis helps interpret why keywords such as user experience, personalization, and consumer trust appear prominently in the bibliometric maps. It also clarifies how AI affects consumer attitudes and trust, which are recurring themes across studies.

Anthropomorphism and Acceptance of Artificial Intelligence

The application of anthropomorphism in AI, or the attribution of human characteristics to technology, has been shown to increase consumers' emotional attachment to AI-based services. Zhang (2024) confirms that AI design with anthropomorphic elements can strengthen the quality of interaction and create a more personal relationship between consumers and brands. However, a study by Kim et al. (2024) warns of the potential uncanny valley effect, which is the discomfort consumers feel when AI resembles humans too closely.

The theory of anthropomorphism explains consumers' emotional attachment, trust, or discomfort which is highly relevant to the bibliometric cluster on AI development and acceptance. It strengthens the interpretation of the ethics, trust, and acceptance cluster identified in the analysis, offering a conceptual framework that explains why research on AI adoption often focuses on trust, human-likeness, and emotional connection.

METHODOLOGY

In this research, a bibliometric approach was used to map the patterns, trends, developments, and themes of publications in scientific literature related to artificial intelligence that shape consumer perception. This bibliometric approach was chosen by the author because it can provide a systematic overview

of the production of scientific knowledge in a certain period of time. This approach can also reveal the intellectual structure and dynamics of a developing topic. The database used to collect data in this study is the Scopus database. According to Moher et al. (2009) in the research of Muhammad et al. (2023), if you want to perfect the acquisition of data there are several processes that must be carried out including, 1) identification; 2) screening; 3) eligibility 4) inclusion.

From the Scopus database, 241 documents containing the keywords “AI” or “artificial intelligence” and “consumer perception”, were obtained. This data will be used in bibliometric analysis in this study. Data analysis is carried out by utilizing VOSviewer software, which is specifically designed to build, map, and visualize bibliometric networks comprehensively. Some of the analysis techniques used include: co-occurrence analysis, cluster analysis, overlay visualization, and density visualization.

RESULTS AND DISCUSSION

Based on the bibliometric analysis of 241 documents containing the keywords “AI” or “artificial intelligence” and “consumer perception” obtained from the Scopus database, there are several findings regarding trends in recent years including:

Performance Analysis

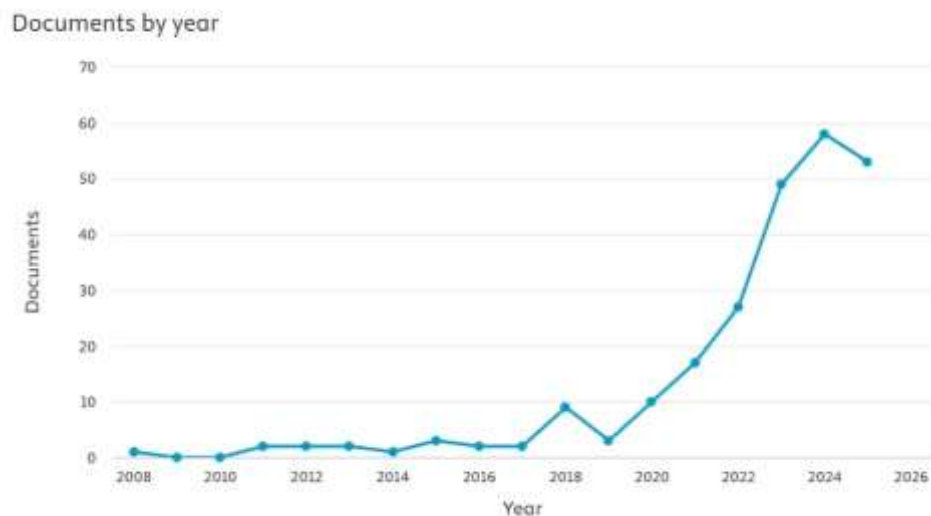


Figure 1. Document Distribution Based on Year of Publication
Source: Scopus database, 2025

Figure 1 The distribution of documents from 2008 to 2025 shows a relatively low number of publications in the early years, with only a handful of studies produced annually until 2019. However, a sharp increase occurred starting in 2020, reaching 49 documents in 2023, 58 in 2024, and 53 in the first half of 2025. This growth demonstrates that the relationship between AI and consumer perception has emerged as a critical and rapidly expanding research domain. The timing of this surge can be linked to two major developments: first, the accelerated digital transformation during the COVID-19 pandemic, which

pushed companies and consumers toward digital interactions mediated by AI; and second, the introduction of generative AI technologies (e.g., ChatGPT, DALL-E, and virtual influencers) that reshaped consumer experiences on a large scale.

The steep rise in publication volume signals both the academic urgency and the practical relevance of the topic, as scholars attempt to capture and explain these disruptive changes. For practitioners, this trend suggests the need to continuously adapt to new consumer behaviors shaped by AI to remain competitive in the digital marketplace.

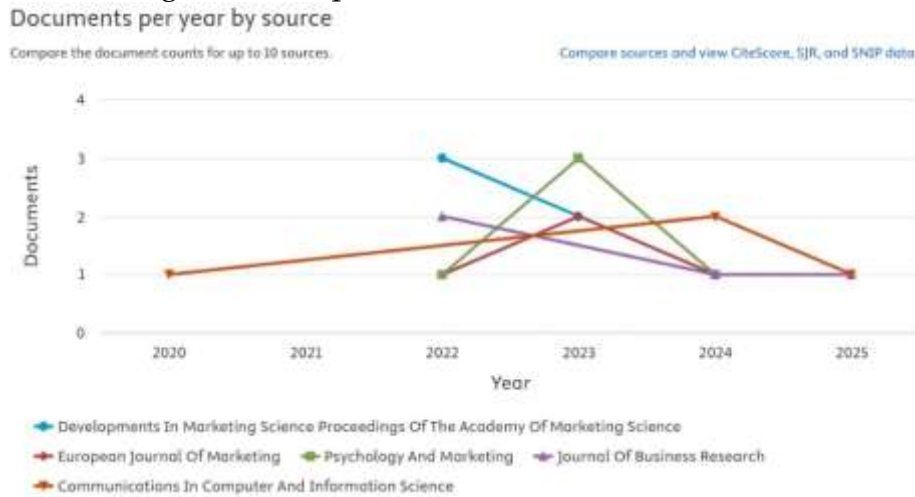


Figure 2. Distribution by Publication Source
Source: Scopus database, 2025

Based on the graph in Figure 2, The spread of publications across various journals illustrates the multidisciplinary character of AI and consumer perception research. Unlike more specialized fields that concentrate outputs in a limited number of journals, this topic spans a wide array of publication outlets, including business and management journals, computer science proceedings, and social science publications.

This diversity reflects how AI is simultaneously studied as a technological innovation, a managerial tool, and a social phenomenon. The fact that many publications appeared between 2022 and 2025 also suggests that academic publishers increasingly recognize the relevance of AI in consumer studies, leading to wider dissemination of findings. For researchers, this implies that valuable insights may come from different disciplinary literatures, requiring a cross-disciplinary reading strategy. For industry players, the diversity of sources reflects the necessity of integrated knowledge, combining technical expertise with consumer psychology and marketing insights to design effective AI adoption strategies.

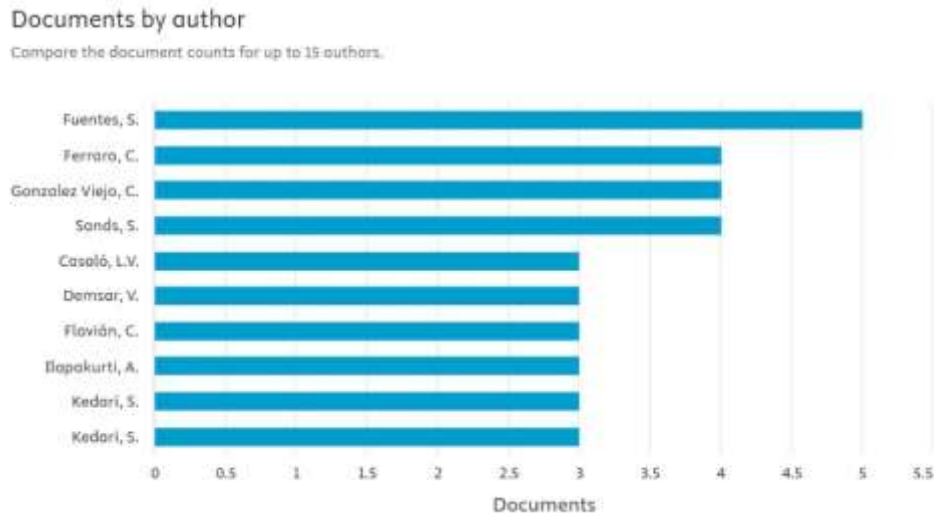


Figure 3. Distribution by Author
Source: Scopus database, 2025

The graph in Figure 3, The bibliometric analysis highlights several influential scholars, such as Fuentes, Ferraro, Gonzalez Viejo, and Sands, who have contributed extensively to this research area. The presence of such leading authors indicates the formation of specialized research communities focused on AI and consumer behavior. Their productivity suggests continuity and depth in addressing core issues such as consumer trust, user experience, and digital marketing with AI applications. This concentration of expertise provides opportunities for collaboration and knowledge transfer, as newer scholars can build upon established frameworks. For practitioners, monitoring the work of these authors can serve as an early-warning system for emerging consumer trends, given that academics often explore concepts before they are fully implemented in industry.

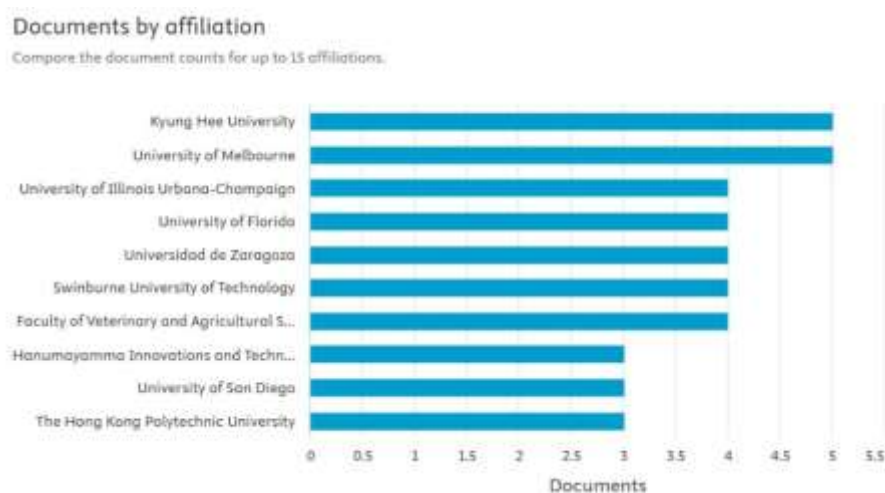


Figure 4. Distribution by Institutional Affiliation
Source: Scopus database, 2025

The graph in Figure 4, shows that institutions such as Kyung Hee University, the University of Melbourne, and the University of Illinois emerge as significant contributors to this field. This finding underscores the role of world-class universities in shaping AI research agendas, particularly in consumer-related applications. The dominance of institutions from developed countries reflects disparities in research capacity, as these universities benefit from strong research funding, access to advanced technology, and interdisciplinary collaborations. Their leadership suggests that cutting-edge theories and models of AI-driven consumer perception are being developed in these contexts and may influence global business practices. For policymakers and managers in developing economies, this finding signals the importance of international collaboration and benchmarking to keep pace with global advancements and avoid lagging behind in AI adoption.

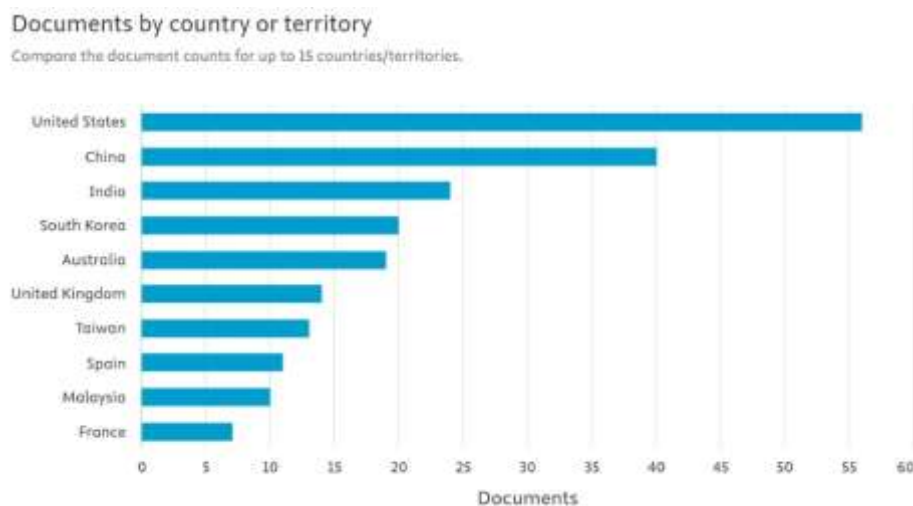


Figure 5. Distribution by Country
Source: Scopus database, 2025

The graph in Figure 5, shows the distribution of publications from various countries. The United States, China, and India dominate the publication landscape, followed by South Korea and Australia. This dominance corresponds with these countries' heavy investments in AI research and commercialization, as well as their large consumer markets that provide fertile ground for studying AI adoption. The United States leads in innovation ecosystems and digital platforms, China excels in AI commercialization and consumer technology, while India is becoming a hub for data-driven consumer applications due to its vast digital economy.

This geographic distribution implies that global narratives on AI and consumer perception are often shaped by these leading countries. Consequently, consumer attitudes reported in the literature may be influenced by cultural norms and regulatory environments in these regions. For managers operating outside these contexts, it is important to adapt insights with local consumer behavior studies, since consumer acceptance of AI may vary significantly by culture and regulation.

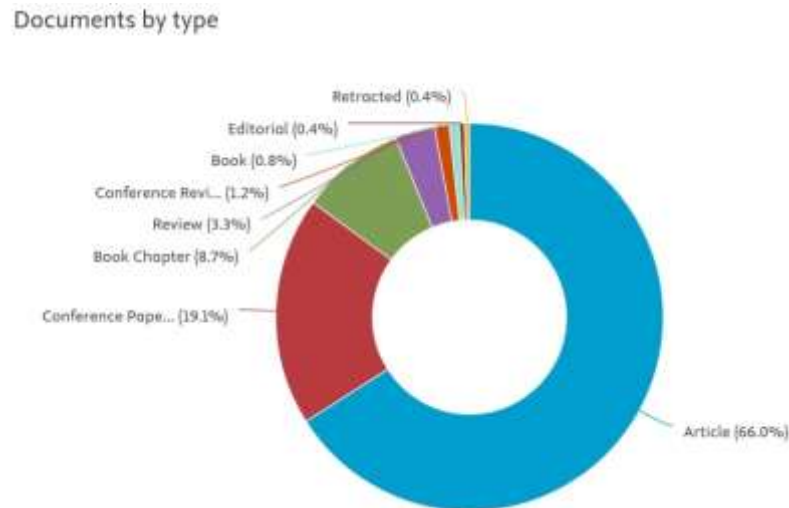


Figure 6. Distribution by Document Type
Source: Scopus database, 2025

Based on the graph in Figure 6, The dominance of journal articles (66%) indicates that research on AI and consumer perception is largely disseminated through peer-reviewed outlets, which reinforces the credibility and robustness of findings in this field. The presence of conference papers (19.1%) and book chapters (8.7%) suggests that the topic is dynamic, with emerging ideas often being tested and debated in conferences before being consolidated in journals. This reflects the fast-moving nature of AI developments, where researchers must rapidly publish preliminary results to stay relevant. For academics, this highlights the importance of tracking conference proceedings to capture cutting-edge insights that may not yet be available in journals. For practitioners, the implication is that staying informed requires looking beyond traditional journal articles, as early discussions in conferences often foreshadow innovations that will soon impact the market.

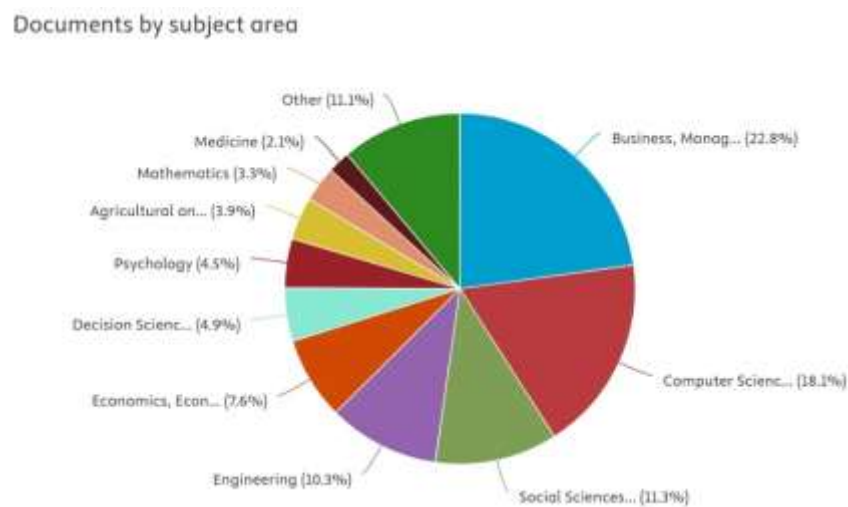


Figure 7. Distribution by Field of Study
Source: Scopus database, 2025

Based on the graph in Figure 7, The disciplinary distribution shows that business and management (22.8%) lead in publications, followed by computer science (18.1%) and social sciences (11.3%). This balance underscores that AI and consumer perception are not only technical challenges but also behavioral and strategic concerns. Computer science provides the technological backbone (e.g., machine learning algorithms, natural language processing), while business research focuses on marketing, decision-making, and consumer engagement. Social science contributes perspectives on human behavior, ethics, and societal implications. The convergence of these fields reflects the interdisciplinary essence of AI research, which requires collaboration across domains to fully understand consumer responses. For managers, this indicates that adopting AI cannot be viewed merely as an IT investment; instead, it must be integrated with marketing strategy, consumer psychology, and ethical considerations to maximize effectiveness.

Science Mapping
Co-occurrence Analysis Network Visualization

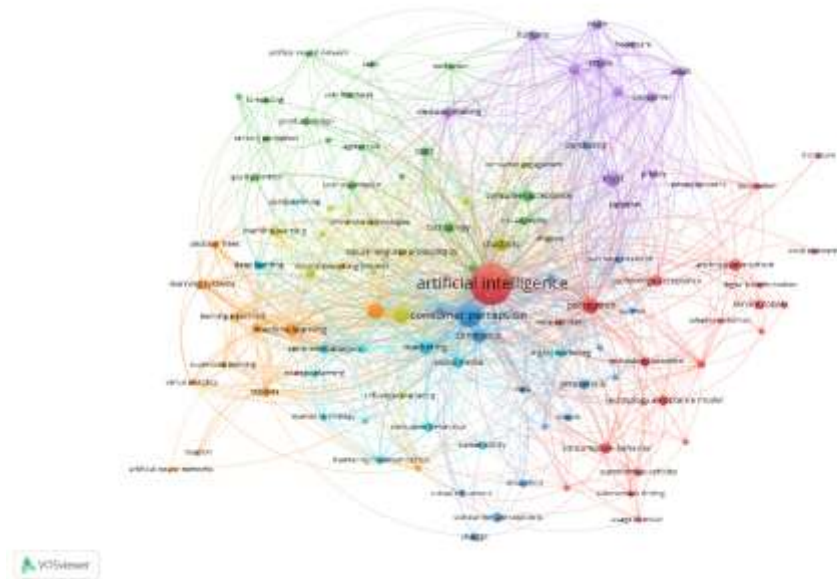


Figure 8. Co-Occurrence Analysis Network Visualization Results
Source: VOSviewer Analysis, 2025

Figure 8 shows the results of co-occurrence analysis network visualization with VOSviewer software. The results reveal findings of a complex but well-organized thematic structure. There are 7 main clusters identified in the analysis, with each cluster representing a different but complementary research direction.

The first cluster is the AI development and acceptance cluster. This cluster focuses on research on how AI, robotics, and automation technologies are adopted by users. The anthropomorphism aspect shows interest in how machines are given human characteristics to improve interaction and acceptance. The application of AI in autonomous vehicles and service robots is also a major focus.

The second cluster is the AI techniques and algorithms cluster. This cluster focuses on the technical aspects of AI, including machine learning algorithms and big data analytics applications, such as sentiment analysis and opinion mining that are widely used to understand consumer behavior and market trends.

The third cluster is the Digital Interaction and Experience cluster. This cluster represents research on interactive technologies such as virtual reality, natural language processing, and consumer acceptance of immersive digital technologies. The focus on user experience signifies the importance of usability and engagement.

The fourth cluster is the Consumer Behavior and Digital Marketing cluster. This cluster highlights research that studies consumer perception and marketing strategies on digital platforms and social media. Influencer marketing and consumer behavior are core parts of this cluster.

The fifth cluster is the AI Innovation in Marketing Communications cluster. This cluster is more specific towards the use of generative AI technologies (such as ChatGPT) and virtual influencers in the context of marketing communications and product innovation. It illustrates the latest trends in AI-based digital marketing.

The Sixth Cluster is the AI Technology Applications and Chatbots cluster. This cluster features a focus on chatbot development, product design, and AI technology applications in different sectors such as agriculture and forecasting. The relationship with user experience also plays an important role here.

The seventh cluster is the Ethics, Privacy, and Trust in The Use of Technology cluster. This cluster addresses critical issues related to data security, user privacy, and trust, which are important foundations in the development and application of AI and digital technologies in various fields, including healthcare.

Overall, the bibliometric analysis shows that research in artificial intelligence (AI) and consumer perception is divided into seven main interrelated themes, illustrating the broad and multidisciplinary scope of research. Research in this field displays strong synergy and integration between aspects of technology development, practical applications, and consumer behavior dynamics. These insights are also an important first step towards identifying research gaps and developing more adaptive AI-based service models in response to evolving consumer dynamics.

Co-occurrence Analysis Overlay Visualization

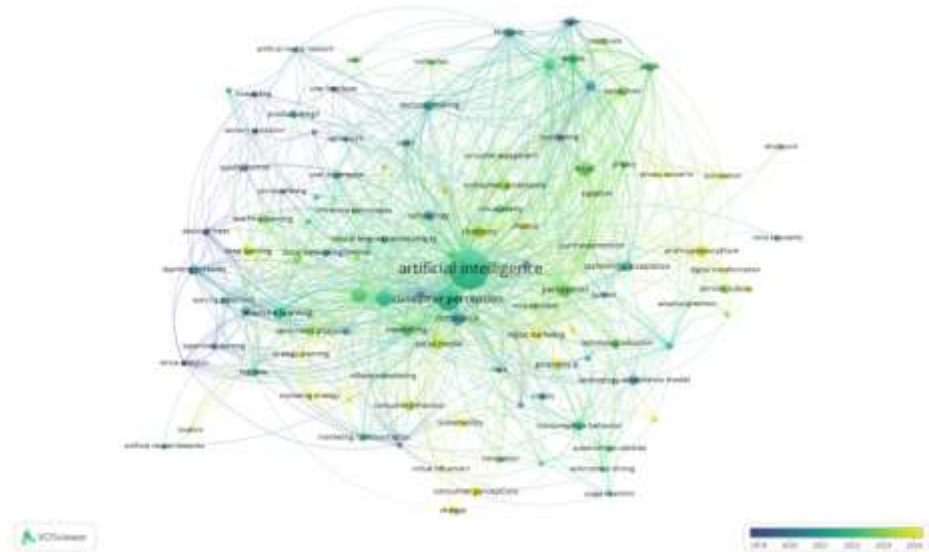


Figure 9. Co-occurrence Analysis Overlay Visualization Result
Source: VOSviewer Analysis, 2025

Figure 9, shows the visualization of keywords with color overlays based on publication year. This shows a transition in research focus from early themes marked in blue or green towards more recent and evolving topics marked in bright yellow. Artificial intelligence and machine learning keywords, show the technological foundations and basic methods that have been the main research topics since the beginning. The keywords in this cluster tend to be darker in color, indicating that this is an established research area and an important foundation for research. Artificial intelligence takes center stage in this research, with keywords appearing most frequently and having strong connections with other topics such as consumer perception, machine learning, marketing, and chatbots. Then keywords such as customer perception, and user experience, which despite having a long history, show an increasing trend of research activity in recent years with increasingly lighter colors. More recent keywords such as chatbots, generative AI, and ChatGPT, deep learning, sentiment analysis, which are dominated by light yellow, indicate that research on these topics is growing rapidly and will be a major research concern, especially in 2023-2024. In contrast, terms such as decision trees, quality control, and artificial neural networks appear in blue, indicating their dominance in previous years. This clearly shows a shift in research focus away from traditional AI techniques towards newer and more relevant AI applications in the context of consumer interaction and digital marketing.

Overall, the overlay visualization identifies rising research trends as well as potential research gaps that have not been widely explored. This can be used as a basis for formulating research directions that are more innovative and relevant to the needs of the times. Thus, this keyword overlay visualization not only draws a thematic map but also reveals patterns of research evolution over time that can help researchers understand the development of the literature and map out future research strategies more systematically.

Co-occurrence Analysis Density Visualization

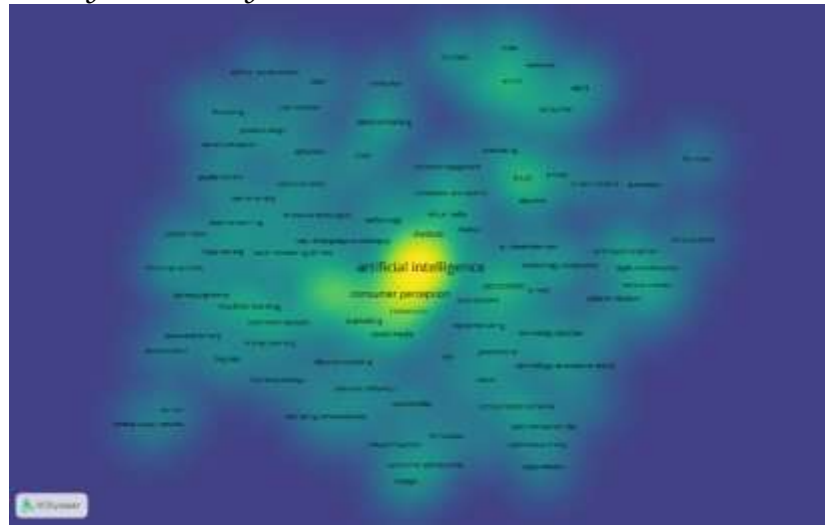


Figure 10. Co-occurrence Analysis Density Visualization Results
Source: VOSviewer Analysis, 2025

In Figure 10, the Co-occurrence analysis density visualization shows a high concentration of keywords in the areas around artificial intelligence, consumer perception, and chatbots, which indicates that the intensity of discussion and research is very large on these topics. Medium-density areas such as machine learning, marketing, social media, and sentiment analysis also stand out as important themes in this research. In contrast, related topics such as privacy concerns, automation, anthropomorphism and service robots, although receiving attention, these topics have a lower density. This indicates that these supporting issues are still relatively newer areas of development or have received less focus. Overall, the visualization indicates that current research is heavily highlighting the integration of artificial intelligence with understanding consumer behavior and marketing strategies, this is mainly because generative technologies have become increasingly popular and rapidly developed in recent years.

CONCLUSIONS AND RECOMMENDATIONS

This bibliometric research indicates that academic attention to the relationship between Artificial Intelligence (AI) and consumer perception has surged significantly since 2020, with a sharp growth in publications in the period 2023 to 2025. The results show that research on this topic is multidisciplinary, involving fields ranging from business and management to computer science to social science, and published by a wide range of institutions and countries, with dominance from United States, China, and India. The cluster analysis identified seven major themes in the related literature, namely AI development and acceptance; AI techniques and algorithms; digital interaction and experience; consumer behavior and digital marketing; AI innovation in marketing communications; applications of AI technology and chatbots; ethics, privacy and, trust in the use of technology. The transition in research focus from the technical aspects of traditional AI to generative AI applications and modern consumer

interactions demonstrates the rapid and adaptive dynamics of this field's development to market and technology needs.

In addition, this study highlights open research gaps, especially on ethics and privacy, and the impact of AI anthropomorphism on consumer acceptance and loyalty that require further exploration. Thus, the results of this analysis provide a comprehensive thematic and trend map, which can serve as a basis for researchers, industry players, and policymakers to design adaptive strategies to optimize the use of AI in shaping consumer perceptions and behaviors in the evolving digital era.

FURTHER STUDY

This study has several limitations that need to be considered. First, this study only uses the Scopus database as its main source, so the results of the literature trend mapping may not be fully comprehensive, given that there are still relevant publications that may be indexed in other databases such as Web of Science or IEEE Xplore. Second, the scope of the study is limited to the second quarter of 2025, so the latest trends after that period are not accommodated in the analysis. Third, the approach used is quantitative bibliometric, which emphasizes mapping publication trends, keywords, and research networks, without exploring in depth the conceptual content or empirical results of the studies analyzed. Fourth, this study focuses on global trends without considering regional, cultural, or specific industry sector variations that may influence consumer perceptions of artificial intelligence (AI) adoption.

Based on these limitations, there are several suggestions for future research. First, future research should combine Scopus with other databases such as Web of Science, IEEE, or Google Scholar to enrich the scope of literature and produce a more comprehensive research map. Second, mixed-method approaches such as systematic literature review (SLR) or meta-analysis can be used to complement bibliometric analysis so that it not only describes publication trends but also presents a more in-depth conceptual synthesis and theoretical model. Third, future research can focus on regional differences or specific industry sectors, such as tourism, education, and healthcare, to understand the dynamics of consumer perceptions of AI in more specific contexts. Fourth, given the research gap on issues of ethics, privacy, and anthropomorphism in AI, empirical studies using survey or experimental methods can be conducted to directly measure consumer attitudes, beliefs, and acceptance.

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REFERENCES

- Aljarah, A., Ibrahim, B., & López, M. (2024). In AI, we do not trust! The nexus between awareness of falsity in AI-generated CSR ads and online brand engagement. *Internet Research*. Doi: <https://doi.org/10.1108/INTR-12-2023-1156>
- Arifin, M. Z., Hafizi, M. R., & Safitri, D. A. (2023). Pengaruh Rebranding Terhadap Persepsi Konsumen. *Jurnal Manajemen Dinamis*, 1(2), 93-99. Doi: <https://doi.org/10.59330/jmd.v1i2.25>
- Candrian, C., & Scherer, A. (2024). How terminology affects users' responses to system failures. *Human factors*, 66(8), 2082-2103. Doi: <https://doi.org/10.1177/00187208231202572>
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of business research*, 133, 285-296. Doi: <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Govindaraj, M., Vandhana, N., & Lawrence, J. (2025). AI-Driven Consumer Behavior Insights: Applying the Insight Equation to Modern Marketing. In *Decoding Consumer Behavior Using the Insight Equation and AI Marketing* (pp. 1-20). IGI Global Scientific Publishing. DOI: 10.4018/979-8-3693-8588-3.ch001
- Hermann, E. (2022). Anthropomorphized artificial intelligence, attachment, and consumer behavior. *Marketing Letters*, 33(1), 157-162. Doi: <https://doi.org/10.1007/s11002-021-09587-3>
- Jain, V., Wadhvani, K., & Eastman, J. K. (2024). Artificial intelligence consumer behavior: A hybrid review and research agenda. *Journal of consumer behaviour*, 23(2), 676-697. Doi: <https://doi.org/10.1002/cb.2233>
- Jayakumar, M., Jenefa, L., Badrinarayanan, M. K., Sarah, K. S., Kumar, A., & Kumar, R. M. (2024). Exploring Organizational Adoption of Innovative Technologies in Consumer Online Purchase. In *2024 International Conference on Emerging Research in Computational Science (ICERCS)* (pp. 1-6). IEEE. Doi: <https://doi.org/10.1109/ICERCS63125.2024.10895563>
- Jiang, Y., Li, X., Luo, H., Yin, S., & Kaynak, O. (2022). Quo vadis artificial intelligence?. *Discover Artificial Intelligence*, 2(1), 4. Doi: <https://doi.org/10.1007/s44163-022-00022-8>
- Kaplan, a., & Haenlein, M. (2020). Rulers of The World, Unite! The Challenges and Opportunities of Artificial Intelligence. *Business Horizons*, 63(1), 37-50. <https://doi.org/10.1016/j.bushor.2019.09.003>
- Kim, J., Park, J., & Lee, S. (2024). Uncanny valley revisited: How consumers respond to hyper-realistic AI avatars in marketing. *Journal of Business Research*, 169, 114230.

- Lopes, J. M., Gomes, S., Nogueira, E., & Trancoso, T. (2025). AI's invisible touch: how effortless browsing shapes customer perception, experience and engagement in online retail. *Cogent Business & Management*, 12(1), 2440628. Doi: <https://doi.org/10.1080/23311975.2024.2440628>
- Marvi, R., & Foroudi, M. M. (2023). Bibliometric analysis: Main procedure and guidelines. In *Researching and Analysing Business* (pp. 43-54). Routledge. Doi: <https://doi.org/10.4324/9781003107774>
- Muhammad, I., Triansyah, F. A., Fahri, A., & Gunawan, A. (2023). Analisis Bibliometrik: Penelitian Game-Based Learning pada Sekolah Menengah 2005-2023. *Jurnal Simki Pedagogia*, 6(2), 465-479. Doi: <https://doi.org/10.29407/jsp.v6i2.301>
- Reshmidilova, S., Mykhaylyova, K., Savchuk, A., Stamat, V., & Oslopova, M. (2024). Utilisation of artificial intelligence technologies in developing marketing communication strategies. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 22(2). <https://doi.org/10.57239/pjls-2024-22.2.00682>
- Riaman, Sukono, Supian, S., & Ismail, N. (2022). Mapping in the topic of mathematical model in Paddy agricultural insurance based on bibliometric analysis: a systematic review approach. *Computation*, 10(4), 50. Doi: <https://doi.org/10.3390/computation10040050>
- Saputro, D. R. S., Prasetyo, H., Wibowo, A., Khairina, F., Sidiq, K., & Wibowo, G. N. A. (2023). Bibliometric analysis of neural basis expansion analysis for interpretable time series (n-beats) for research trend mapping. *BAREKENG: Jurnal Ilmu Matematika dan Terapan*, 17(2), 1103-1112. Doi: <https://doi.org/10.30598/barekengvol17iss2pp1103-1112>
- Sarin, A. B. (2025). The Evolution of Consumer Behavior and the Role of Artificial Intelligence in Shaping It: AI in Marketing. In *Decoding Consumer Behavior Using the Insight Equation and AI Marketing* (pp. 21-40). IGI Global Scientific Publishing. DOI: 10.4018/979-8-3693-8588-3.ch002
- Teepapal, T. (2025). AI-driven personalization: Unraveling consumer perceptions in social media engagement. *Computers in Human Behavior*, 165, 108549. Doi: <https://doi.org/10.1016/j.chb.2024.108549>
- Xie, R. (2021). A brief analysis of retail customer's consumption experience under the background of Artificial Intelligence. In *2021 International Symposium on Artificial Intelligence and its Application on Media (ISAIAM)* (pp. 27-31). IEEE. Doi: 10.1109/ISAIAM53259.2021.00013
- Zhang, Y. (2024). Research on AI Anthropomorphism Interaction in the Marketing Field: Overview and Prospect. In *2024 3rd International Conference on Artificial Intelligence and Computer Information Technology (AICIT)* (pp. 1-7). IEEE. Doi: 10.1109/AICIT62434.2024.10730540