

Uncovering the Role of Artificial Intelligence in Transforming Consumer Behavior and Purchase Intention: A Systematic Bibliometric Review

Araştırma Makalesi /Research Article

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ABSTRACT: Digital technologies have become an essential component of contemporary business ecosystems, and digital transformation continues to reshape modern marketing strategies. In this environment, Artificial Intelligence (AI) has emerged as a key technological driver, significantly influencing how consumers search for information, evaluate alternatives, and make purchasing decisions. As AI-based applications increasingly mediate consumer-brand interactions, understanding their effects on consumer behavior and purchase intention has become an important research topic. This study conducts a bibliometric analysis to examine the evolution of academic research on AI, consumer behavior, and purchase intention over the past 33 years. Using the keywords “Artificial intelligence,” “digital transformation,” “consumer behavior,” “marketing,” and “purchase intention,” data were collected from the Scopus and Web of Science databases, resulting in a final sample of 45 peer-reviewed articles. The analysis focuses on publication trends, country contributions, and leading journals in the field. The findings reveal a clear increase in research interest after 2018, reflecting the growing use of AI in digital marketing. Overall, the results indicate that AI positively influences consumer attitudes, engagement, and purchase intention, highlighting its strategic importance and future research potential in AI-enabled marketing.

Keywords: Digital transformation, Artificial intelligence, Consumer behavior, Purchase intention, Bibliometric analysis

Tüketici Davranışı ve Satın Alma Niyetinin Dönüşümünde Yapay Zekânın Rolü: Sistemik Bir Bibliyometrik İnceleme

ÖZ: Dijital teknolojiler, çağdaş iş ekosistemlerinin temel unsurlarından biri hâline gelmiş ve dijital dönüşüm süreci modern pazarlama stratejilerini önemli ölçüde yeniden şekillendirmiştir. fieldsalma kararlarını verme süreçlerini etkileyen başlıca teknolojik itici güçlerden biri olarak öne çıkmaktadır. YZ tabanlı uygulamaların tüketici-marka etkileşimlerinde artan rolü, bu teknolojilerin tüketici davranışı ve satın alma niyeti üzerindeki etkilerinin akademik açıdan incelenmesini gerekli kılmıştır. Bu çalışma, yapay zekâ, tüketici davranışı ve satın alma niyeti arasındaki ilişkiyi ele alan literatürün son 33 yıldaki gelişimini bibliyometrik analiz yoluyla incelemektedir. “Yapay zekâ”, “dijital dönüşüm”, “tüketici davranışı”, “pazarlama” ve “satın alma niyeti” anahtar kelimeleri kullanılarak Scopus ve Web of Science veri tabanlarından elde edilen çalışmalar analiz edilmiş ve 45 hakemli makale değerlendirmeye dâhil edilmiştir. Bulgular, 2018 sonrasında akademik ilginin belirgin biçimde arttığını ve bunun dijital pazarlamada yapay zekâ kullanımının yaygınlaşmasıyla ilişkili olduğunu göstermektedir.

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Genel olarak sonuçlar, yapay zekânın tüketici tutumları, etkileşim düzeyi ve satın alma niyeti üzerinde olumlu etkiler yarattığını ortaya koymakta ve yapay zekâ destekli pazarlamanın stratejik önemine dikkat çekmektedir.

Anahtar Kelimeler: Dijital dönüşüm, Yapay zekâ, Tüketici davranışı, Satın alma niyeti, Bibliyometrik analiz

1. Introduction

The rapid growth of science and technology has led to many significant discoveries and innovations. However, AI is often seen as the leader in these developments (Mariani et al., 2022: 758). Since the 1950s, AI has changed dramatically. Research shows that using AI technology makes it much easier for consumers to make decisions. It does this by lowering search costs, speeding up decision-making, offering a wide variety of options, and reducing the impacts of sales organizations (Huang and Rust, 2021: 35). AI, capable of human-like intelligence and solving complex problems, has become widely adopted in many areas (Lee and Choi, 2016: 57). Algorithms are carefully designed to help computers follow instructions and solve challenges. The use of AI has proven beneficial for both marketers and consumers in the 21st century. It offers a fresh approach to problem-solving and creates new solutions through a machine learning process that uses language. Consumers benefit from AI as much as marketers do. While many of their clients use AI, the company makes money by optimizing the use of financial and time resources to meet consumer needs (Kim and Kim, 2017: 73).

The field of AI has evolved to a level where it has transformed the interface of functions into an interface that is easy to use for users and focused on consumers. As a result, consumers are ready to receive support from AI in the stages of purchasing, selecting, researching goods.

AI algorithms play an important role in helping marketers reduce costs and improve consumer profitability (Yin and Qiu, 2021: 59). Today, AI is a key part of how consumers make decisions, especially regarding their buying and consumption habits. Consumers embrace AI because it helps simplify their lives and supports their efforts to live sustainably. As a new tool of the 21st century, AI has become essential and user-friendly for consumers. It allows them to use technology to their benefit while also saving time and cutting costs. The profitability of AI in many areas has led to its wide acceptance and use among consumers.

In recent years, the growing use of AI in marketing has changed how businesses operate and how consumers expect to interact online. As companies start using smart systems for customizing experiences, predicting trends, and creating content automatically, the lines between human and machine decision-making are becoming less clear. This shift highlights the importance of understanding how AI technologies influence marketing practices and how consumers react in complicated digital environments.

The fast growth of data-driven environments has made AI more important for understanding and predicting consumer behavior. As consumers engage more with digital platforms, they generate huge amounts of behavioral, contextual, and transactional data. AI technologies are essential for transforming this data into valuable insights. They assist businesses in anticipating consumer needs, personalizing experiences, and improving marketing results. This focus on data not only boosts organizational flexibility but also enhances the link between consumer expectations and digital service delivery. Recent studies indicate that research on AI-supported consumer behavior has expanded rapidly with the development of generative AI, conversational commerce, and predictive analytics technologies. In particular, AI-driven personalization, recommendation systems, and automated customer interaction tools have become central components of digital marketing strategies. Although previous studies have examined specific dimensions of AI adoption such as chatbot usage, technology acceptance, and service automation, relatively limited attention has been given to the overall intellectual structure of the relationship between AI, consumer behavior, and purchase intention. In this context, bibliometric evaluations remain limited despite the growing academic interest in AI-enabled marketing ecosystems.

The study examined the strategic role of AI within contemporary marketing practices and consumer-related applications. It examines a variety of AI applications across different marketing sectors. It also explores new AI-driven innovations in marketing. Finally, the research discusses the important marketing benefits that come from using AI.

2. Review of literature

2.1. AI applications and marketing

AI is a part of computer science that allows machines to understand and imitate human communication and behavior. This technology has allowed for the creation of smart machines that can think, respond, and perform actions similar to humans, based on the data provided (Toorajipour et al., 2021: 509).

Marketers can use AI to better understand consumer behavior and improve their ability to categorize consumers and guide them to the next step in their journey, providing an optimal experience. By carefully examining consumer data, marketers can avoid wasting resources on ineffective efforts and focus on what consumers truly want.

In particular, delivering results for consumer needs, ensuring proper product production and service delivery, managing real-time pricing demand changes, designing websites according to needs with AI applications, and making consumer purchasing processes more flexible and easier are some of the areas where marketing can make an impact.

AI-driven technologies have also redefined the way firms manage customer experience by enabling seamless, omnichannel interactions and reducing friction

across the customer journey. Recent research has increasingly emphasized the strategic role of AI in reshaping digital marketing ecosystems. Studies show that AI-supported systems improve firms' capabilities in predictive analytics, dynamic segmentation, and hyper-personalized communication processes. In addition, generative AI technologies and conversational AI applications have transformed customer interaction management by enabling more human-like, real-time, and context-aware communication. Recent literature also highlights that AI is no longer viewed solely as an operational support tool, but rather as a strategic mechanism that influences customer engagement, perceived value, and long-term relationship management in digital environments. Intelligent recommendation systems, behavioural prediction models, and automated service interfaces allow companies to deliver more consistent and context-aware experiences across digital touchpoints. Research shows that AI can significantly enhance perceived service quality by increasing responsiveness, reducing waiting times, and tailoring offerings to real-time consumer states. Moreover, advanced learning algorithms enable firms to detect subtle behavioural cues, anticipate dissatisfaction, and intervene proactively, thereby strengthening customer retention and long-term engagement. These developments illustrate the extent to which AI has evolved from a support tool into a core driver of value creation in modern marketing ecosystems (Ameen et al., 2022).

Recent studies also show that AI technologies have broadened what companies can do by enabling better segmentation, micro-targeting, and dynamic personalization. With real-time data processing and predictive analytics, AI helps marketers understand consumer needs before they are clearly stated. This boosts satisfaction and lessens decision fatigue. Additionally, tools like conversational agents, emotional AI, and generative content are changing how companies design customer experiences. They allow businesses to automate high-contact services without lowering service quality. This shows that AI is not just a technological improvement; it is a powerful force reshaping modern marketing practices (Davenport et al., 2020: 29). Generative AI technologies are transforming marketing communication, automated content creation, and customer interaction management. AI-supported systems enable firms to deliver highly personalized experiences while improving predictive analytics and decision-making capabilities in digital environments (Dwivedi et al., 2022). In addition, AI-driven marketing systems are increasingly viewed as strategic tools that influence customer engagement, perceived value, and long-term relationship management processes (Huang and Rust, 2024).

Recent studies show that AI is changing how marketing activities are planned, carried out, and improved by expanding companies' strategic and analytical abilities (Kim et al., 2023: 28). AI-driven systems affect not only company decision-making but also how consumers search for information, evaluate options, and make purchasing choices. With real-time personalized interactions and better machine learning models, AI allows for a level of segmentation, micro-targeting,

and predictive analysis that goes beyond traditional methods. These abilities help marketers predict consumer needs before they are fully recognized, which reduces decision fatigue and increases perceived service value. Additionally, AI-powered chatbots have become essential tools for managing customer interactions throughout the entire journey, providing smooth and context-aware communication. However, the success of these systems relies heavily on how consumers view transparency, fairness, and the clarity of algorithms, which greatly affects trust and acceptance. As AI-generated recommendations become more accurate and personalized, their influence on consumers' attitudes and purchasing intentions grows, highlighting AI's significant role in reshaping both the theory and practice of modern marketing. More recent studies have extended this discussion by focusing on specific AI-mediated consumer contexts. For instance, An and Ngo (2025) examined AI-powered personalized advertising and showed that perceived personalization affects purchase intention through perceived relevance, trust, and usefulness. Duivenvoorde (2025) discussed generative AI as a transformative force in marketing by emphasizing its effects on automated content creation, consumer communication, and digital commerce practices. Wen and Li (2025) investigated AI-driven virtual anchors and found that responsiveness and interaction quality play an important role in shaping consumers' purchase intentions. Similarly, Shi et al. (2025) focused on AI-generated cultural and creative products and revealed that consumer purchase intention is influenced by perceived value, satisfaction, and product-related AI perceptions. These recent studies indicate that AI-related consumer research has moved beyond general discussions of automation and personalization toward more specific areas such as generative AI, AI-generated content, virtual influencers, and AI-mediated purchase environments.

2.2. The impact of AI on consumer behavior and purchase intention

The consumer's attitude and approach toward buying a specific product or service, along with their willingness to pay, is known as the intention to buy. Research shows that AI boosts consumer confidence and intent regarding certain products and services. Businesses widely use AI, enabling consumers to visualize products in a unique way through augmented reality applications. This helps them make informed choices when they shop. Companies have adopted different AI-powered technologies to offer consumers the best personalized options. (Pantano et al., 2017: 85; Reinartz et al., 2019: 358). The technology provided by AI helps consumers clearly understand their buying preferences. Past studies have shown that the goal of AI is to create programs that can solve problems like humans do, improving the decision-making skills necessary for purchasing intent. (Qian and Xu, 2019: 68). Additionally, research indicates that online platforms using AI offer a safer and risk-free shopping experience for consumers (Haenlein et al., 2019). AI is a user-friendly technology that helps consumers make buying decisions while benefiting from various products or services. (Yoo, 2010: 92). The importance and effectiveness of AI come from its ability to provide consumers with a large amount

of relevant and organized information related to purchasing activities. (Sohn and Kwon, 2020).

It can be said that consumers' online experiences are important for their buying intentions. Research shows that a good virtual experience leads to a greater willingness to buy (Pantano et al., 2017: 86). A study found that consumers who buy from online stores using AI feel more satisfied with their purchase decisions.

AI applications can affect how consumers think and feel by changing how they view risk, usefulness, and fairness when making decisions online. Shin and Park (2019: 281) point out that consumers' trust in AI recommendations largely hinges on how transparent, fair, and understandable the algorithm's outputs are. When consumers see that an AI system works clearly and without bias, they tend to view its suggestions more positively. This leads to greater acceptance of automated advice and boosts the likelihood of making a purchase. This effect is particularly strong in situations where consumers are overwhelmed with information or feel uncertain. AI helps reduce the mental effort needed to evaluate options and builds confidence in the decision results. Thus, trust plays a key role in how AI influences consumer behavior in online shopping. Recent studies further suggest that consumers' attitudes toward AI-supported systems are strongly shaped by algorithmic transparency, explainability, and ethical considerations. Consumers are more likely to trust AI-generated recommendations when decision processes are perceived as understandable, fair, and unbiased. In addition, the growing use of generative AI technologies in digital commerce has intensified discussions regarding authenticity, privacy, and consumer autonomy. These developments indicate that consumer trust in AI environments depends not only on technological efficiency but also on ethical and transparent interaction design. AI-supported personalization significantly affects consumers' purchase intentions in digital commerce environments. Consumers are more likely to develop positive purchase intentions when AI systems provide personalized recommendations that are perceived as relevant and useful (Jayapal, 2025). Furthermore, algorithmic transparency has emerged as a critical factor shaping consumer trust toward AI-supported online platforms. Transparent and explainable AI systems positively influence consumers' perceptions of fairness, reliability, and trust in digital purchasing processes (Maharjan, 2024).

Beyond cognitive evaluations, AI-driven experiences shape the emotional and experiential aspects of consumer behavior by personalizing interactions and improving perceived service quality. Huang and Rust (2021: 38) argue that AI enhances customer experience by increasing responsiveness, enabling highly personalized communication, and optimizing service encounters across digital touchpoints. These improvements positively influence perceived value and satisfaction, which are strong predictors of purchase intention. AI and advanced machine-learning systems can anticipate consumer needs, create adaptable content, and provide context-aware recommendations. These factors together increase

consumers' willingness to trust AI-mediated decisions. As AI-supported interactions become smoother and more engaging, consumers show a stronger intention to make purchases, especially when the technology reduces uncertainty and improves perceived relevance.

Overall, the literature shows that AI has multiple roles in marketing and consumer research. It improves operational efficiency, enriches customer experience, and affects behaviors like trust, perceived value, and purchase intention. However, even with the increasing amount of research, gaps still exist. These include differences in how consumers from different cultures respond, ethical issues surrounding AI-driven persuasion, and the long-term effects of algorithmic decision-making on building loyalty. These gaps point to significant opportunities for future research, especially in understanding how digital changes will continue to shape interactions between consumers and firms in the years ahead.

3. Methodology

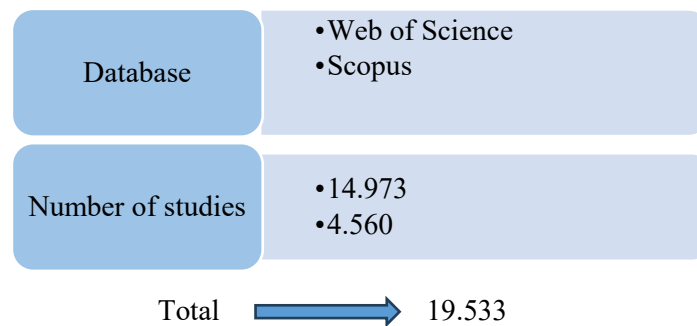
The method of this study includes a three-stage process that involves selecting bibliometric databases, identifying relevant keywords, and classifying studies by year, country, and journal. In the first stage, major indexing platforms were examined to make sure high-quality academic work was included. Scopus and Web of Science were chosen because they offer extensive coverage and are reliable for bibliometric research. These databases are widely recognized in bibliometric research due to their high-quality indexing standards, multidisciplinary coverage, and reliability in mapping scientific production. The combined use of Scopus and Web of Science also helped improve data robustness and minimize database-related bias in the identification of relevant publications. The second stage defined a clear set of keywords related to AI, consumer behavior, and purchase intention. This helped retrieve studies that reflect the intellectual structure of the field directly. In the final stage, the collected publications were analyzed across various areas, including trends over time, geographical contributions, and patterns in journal distribution. This analysis allowed for a complete assessment of how scholarly interest in AI-driven consumer behavior has changed over time. This detailed approach provides a clear and organized base for mapping the conceptual growth of the field and identifying new research clusters.

3.1. Defining the keywords and identification of key outcomes

The initial search used keywords included in "AI", "digital transformation", "consumer behavior", "marketing", and "purchase intention". The selection of these keywords was based on their relevance to the intersection of AI-driven marketing practices and consumer decision-making processes. By using broad, conceptually aligned terms, the search strategy ensured the inclusion of studies capturing both technological developments and behavioural outcomes within the scope of digital transformation.

In the second stage, the retrieved publications were screened to identify important outcomes related to the selected concepts. Titles, abstracts, and author keywords were examined to determine whether the studies focused on AI applications in marketing and their impact on consumer behavior or purchase intention. This process helped us narrow down the dataset to include only those publications that significantly contributed to understanding the field's intellectual structure. As shown in Figure 1, this methodology was applied consistently across both databases. This approach ensured comparability and lowered the risk of selection bias. Only peer-reviewed journal articles published in English were included in the analysis. Conference papers, book chapters, editorials, notes, and duplicate records were excluded to ensure consistency and academic quality. In addition, studies not directly related to AI, consumer behavior, marketing, or purchase intention were removed during the screening process.

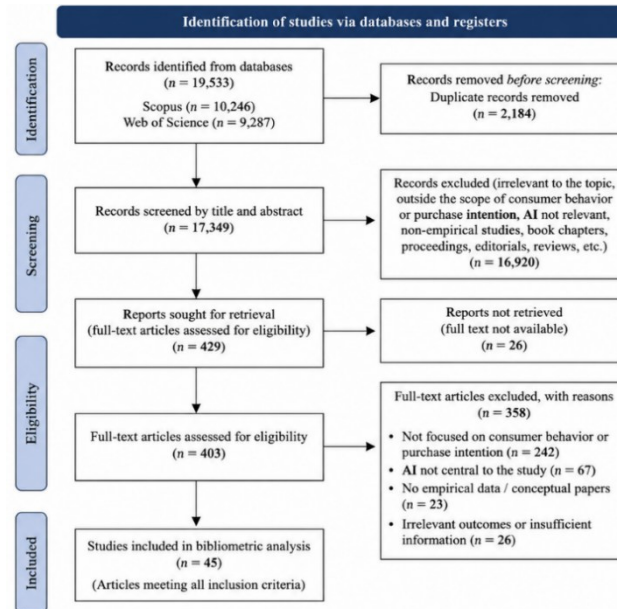
Figure 1: Keyword combinations



The initial search results included a broad range of AI-related publications across multiple disciplines. Therefore, an additional screening process was conducted to identify studies directly related to consumer behavior, marketing, and purchase intention. Publications lacking conceptual relevance to the focus of the study were excluded in order to ensure thematic consistency and analytical focus within the final dataset.

A PRISMA-based flow diagram was used to present the identification, screening, eligibility, and inclusion stages of the study selection process (Figure 2).

As illustrated in the PRISMA-based flow diagram, the study selection process involved multiple screening and eligibility stages in order to ensure thematic relevance and conceptual consistency within the final dataset. This systematic filtering process helped refine the initial database results and establish a focused bibliometric sample for analysis.

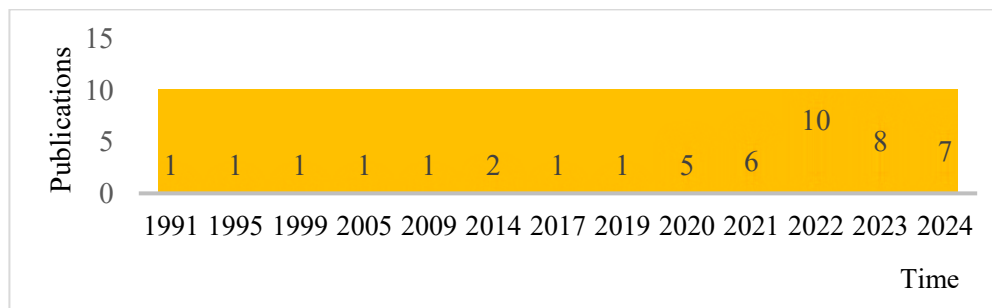
Figure 2: PRISMA-based flow diagram of the study selection process

3.2. The process of analysing data

After the initial database search, the retrieved records were manually screened based on titles, abstracts, and keywords. Duplicate studies appearing in both databases were identified and removed. The remaining publications were then evaluated according to relevance and thematic consistency with the objectives of the study. Although the initial search produced a large number of records, the screening process focused specifically on studies directly examining the relationship between artificial intelligence, consumer behavior, marketing, and purchase intention. Due to the multidisciplinary and highly heterogeneous nature of AI-related literature, studies focusing solely on technical AI development, engineering applications, or unrelated digital systems were excluded from the analysis. Therefore, the final dataset was intentionally narrowed to highly relevant and thematically consistent publications in order to improve conceptual focus, thematic coherence, and analytical reliability. The study aimed to analyze keywords related to AI, consumer behavior, and purchase intention using a structured bibliometric approach. After collecting publications from the chosen databases, the dataset was cleaned by removing duplicates, irrelevant studies, and non-peer-reviewed documents through the screening process illustrated in the PRISMA-based flow diagram to ensure the reliability and thematic consistency of the results. The remaining records were then examined by publication year, which helped identify trends over time and track the growth of academic interest in the field. Additionally, contributions from different countries were evaluated to show the geographical spread of scientific work and find out which regions have been most active in researching AI-driven consumer behavior.

The next stage of the analysis looked at the journals where the studies were published. This provided insight into the range of disciplines within the research area and identified the main academic outlets that support the field's development. Evaluating the journals also revealed publication trends and highlighted the importance of certain journals in this domain. After applying inclusion and exclusion criteria that matched the study's focus, the final dataset included 45 peer-reviewed articles. These publications form the foundation of the bibliometric evaluation presented in this research. Figure 3 shows the number of studies published each year, indicating the growing academic interest in the connection between AI and consumer decision-making processes.

Figure 3: Number of publications by year



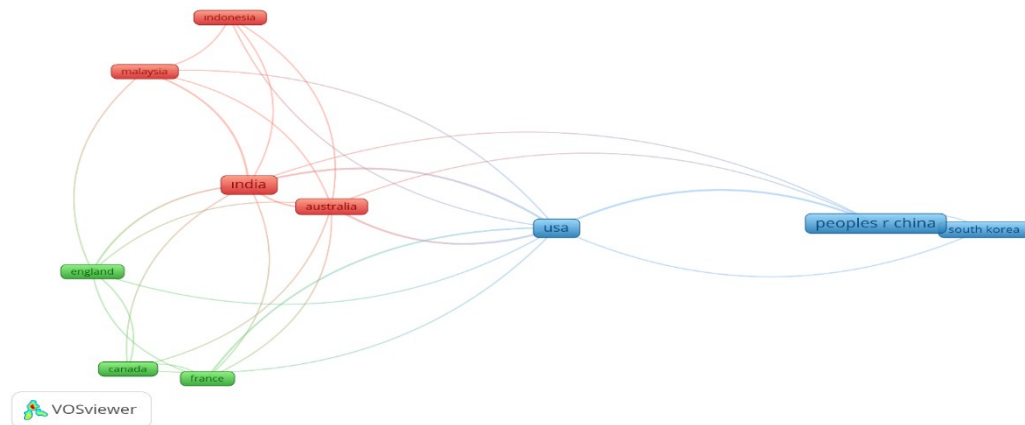
Studies on AI applications, consumer behavior, and purchase intention in marketing have increased significantly since 2020. This trend shows how digital transformation has sped up as organizations have adopted AI tools to understand and influence consumer choices. The rise in scholarly attention also matches the growing interest among practitioners in AI-enabled personalization, predictive analytics, and automated customer interaction systems. The highest level of publications occurred in 2022, showing that AI-related consumer research peaked during this time as technological advancements became more accessible and integrated into marketing. This focus on studies suggests a strong and ongoing interest in how AI technologies change consumption patterns and buying motivations in fast-evolving digital spaces.

3.3. Determination of contribution by country

The research identifies the top-producing countries based on the authors' country of origin, allowing us to assess the global distribution of scientific activity. Looking at contributions from different countries helps show which regions have the strongest research interest in AI, consumer behavior, and purchase intention within marketing. The mapping results reveal clear variations among countries, with some nations standing out as central hubs for research output due to their rapid technological adoption and established research infrastructure. In this context, the countries with the highest number of publications were identified, and the top 10 contributors were determined. Figure 4 provides a visual representation of these contributions, while Figure 5 lists the top 10 countries with the most publications,

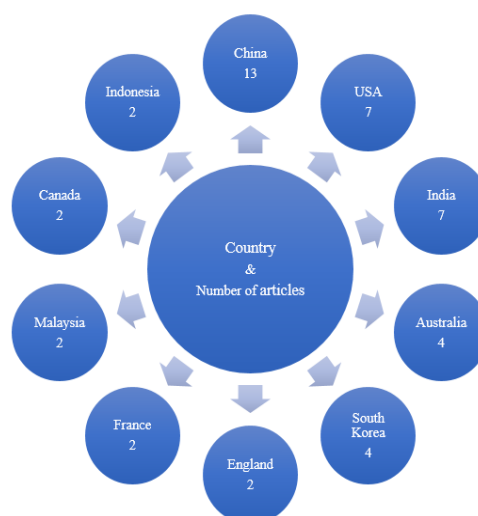
giving a clearer view of how academic productivity is geographically spread across the field.

Figure 4: Map of the most prolific countries



The differences seen between countries can be explained by several structural and contextual factors that shape research production in this field. Countries like the United States, China, and India usually lead in AI-related marketing research because of their strong technological ecosystems, large digital consumer markets, and significant investments in AI infrastructure. These nations also have a high concentration of universities, research institutions, and tech-driven firms, which contribute to larger publication volumes. In contrast, countries with emerging digital economies tend to produce fewer studies, often due to limited research funding, smaller academic networks, or slower adoption of AI technologies in business. These disparities underline how a country's technological readiness, capacity for innovation, and market digitalization influence the level of scholarly engagement with AI-driven consumer research.

Figure 5: The 10 most productive countries

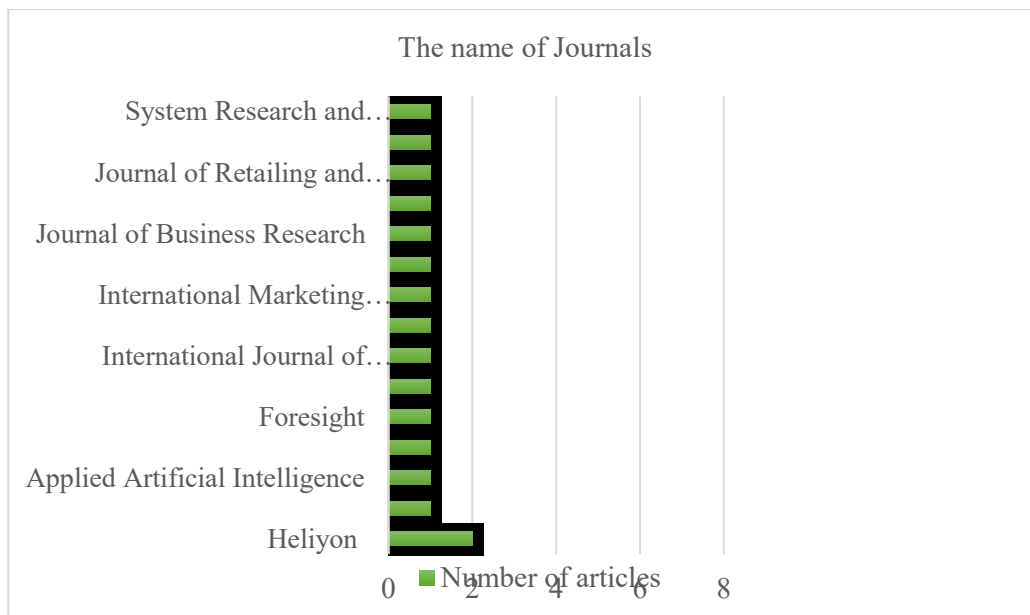


The studies show that the most productive countries are China, the United States, and India, based on where the authors come from. This distribution highlights the key role these countries have in developing and using AI technologies. They benefit from large digital markets, strong research infrastructures, and significant investment in AI-driven innovation. Their steady output also shows a strong interest from both academia and industry in how AI influences consumer behavior and buying intentions. This positions these countries as major players in the scientific progress of the field.

3.4. The determination of the number of publications according to journals

The count of publications by journal shows that the 15 articles in the final dataset were published in 45 different academic journals. This distribution suggests that research on AI applications, consumer behavior, and purchase intention is not limited to a few outlets but is spread across various journals. This spread indicates that the topic touches on multiple areas within business and marketing, drawing interest from different academic communities. Figure 6 lists the 15 most featured academic journals.

Figure 6: The fifteen most prominent academic journals



It shows that many of these journals focus on marketing, digital transformation, or consumer research, aligning with the subject area. Each journal contributing only one publication shows that academic interest in this field is still growing. Systematic research on AI-driven consumer behavior and purchase intention is still quite limited. This trend also highlights the new and interdisciplinary nature of the topic, suggesting that the field is in its early development stage and likely to grow in the coming years as AI technologies continue to advance and integrate more into marketing practices. At the same time, the relatively limited size of the final dataset

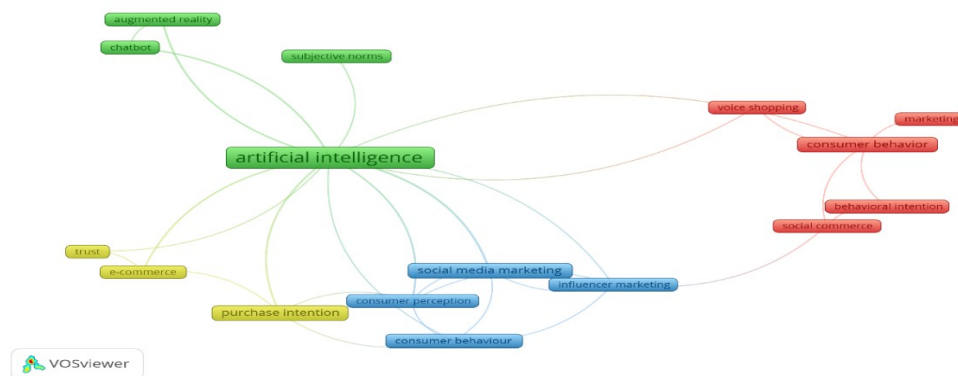
may also have influenced the dispersion of publications across journals. Future bibliometric studies based on broader datasets may contribute to identifying more clearly defined core journals within the field.

3.5. Publication performance of academic journals

An analysis focused on the keywords used in studies about AI, particularly research in business administration and marketing. To meet the study's goal, only articles related to consumer behavior and purchase intention were included, ensuring a consistent dataset. The keywords from the journals that published these articles were evaluated to spot patterns that reflect the themes in existing research. This process led to several clustering results, showing how topics like AI, digital transformation, consumer decision-making, and marketing analytics are linked in the literature. Keyword co-occurrence analysis was used to identify dominant thematic structures within the literature. This approach allowed the visualization of conceptual relationships among recurring research topics and helped reveal the main research clusters in AI-driven consumer behavior studies.

These keyword clusters give insight into the field's structure and highlight the main and emerging themes shaping current research trends.

Figure 7: Visualization of keywords



The results for keywords are shown in Figure 7. The keyword co-occurrence analysis provided a conceptual overview of the dominant thematic structures and emerging research tendencies within the AI and consumer behavior literature.

4. Results

Four distinct clusters emerged from the keyword co-occurrence analysis, revealing the dominant research streams within the literature on AI and consumer behavior. The first cluster is largely concentrated on consumer behavior and purchasing attitudes, with a particular focus on how consumers engage with digital environments supported by AI technologies. Studies within this cluster examine not only observable purchasing outcomes but also underlying cognitive and behavioral processes, such as information search, perceived risk, decision confidence, and behavioral intentions. A prominent subtheme within this cluster is voice shopping,

which has gained increasing attention as voice assistants become more integrated into consumers' everyday lives. Research on voice commerce demonstrates that consumers rely on voice-based interfaces to simplify product searches, compare alternatives, and complete transactions with minimal effort. These studies suggest that voice shopping reduces cognitive load, enhances perceived convenience, and alters traditional consumer decision-making pathways, thereby accelerating adoption across various online and omni channel retail contexts.

The second cluster focuses on AI and augmented reality, emphasizing their role in transforming service experiences. This stream of research highlights how AI-driven systems and immersive technologies contribute to more personalized, interactive, and engaging service encounters. A substantial body of work within this cluster investigates the use of chatbot applications during service transactions, examining their effects on perceived service quality, responsiveness, trust, and customer satisfaction. Beyond operational efficiency, these studies underline the experiential dimension of AI-enabled services, showing how virtual environments, AI-generated content, and real-time assistance collectively reshape customer expectations. The integration of augmented reality with AI is also discussed as a tool for enhancing visualization, reducing uncertainty, and increasing consumer involvement, particularly in complex or high-involvement purchase decisions.

The third cluster encompasses research on social media marketing and influencer marketing, focusing on the relationships among consumer perception, brand attitudes, and behavioral responses. Studies in this cluster explore how AI enhances digital marketing practices through advanced analytics, personalization algorithms, and automated content generation. By processing large volumes of user-generated data, AI-powered tools allow firms to identify sentiment trends, predict behavioral patterns, and optimize engagement strategies on social media platforms. Research in this area also highlights how influencer marketing benefits from AI-driven insights, enabling brands to select appropriate influencers, tailor messages, and measure campaign effectiveness more accurately. Overall, this cluster reflects the growing strategic importance of AI in managing brand–consumer interactions and strengthening digital communication effectiveness.

The fourth and final cluster is centered on purchase intention and e-commerce-related concepts, addressing the factors that influence online purchasing behavior in AI-supported environments. Research within this cluster examines key determinants such as perceived usefulness, ease of use, perceived value, and technology acceptance. A particularly strong emphasis is placed on trust, which repeatedly emerges as a critical variable shaping consumer responses to AI-enabled systems. Several studies highlight the mediating role of trust in the relationship between AI-driven interactions and purchase intention, suggesting that technological efficiency and personalization alone are insufficient to drive consumer behavior. Instead, trust functions as a mechanism that transforms AI-

based recommendations, automated services, and personalized interfaces into actual purchasing decisions, underscoring its central role in digital commerce.

The bibliometric findings further indicate that scholarly interest in AI and consumer behavior has intensified significantly from 2020 onward. This temporal concentration corresponds with the rapid diffusion of digital technologies, the expansion of e-commerce platforms, and the widespread adoption of AI-driven marketing tools. Country-level analysis reveals that China, the United States, and India are the most productive contributors to this research stream, reflecting their strong technological infrastructures, large digital consumer markets, and growing academic output. Despite the observable increase in publications, the overall volume of research remains relatively limited, suggesting that the field is still in an emerging phase. Nevertheless, the consistent upward trend in recent years points to expanding academic interest and highlights substantial opportunities for future research, particularly in exploring the long-term behavioral, psychological, and ethical implications of AI in consumer markets. At the same time, the literature increasingly emphasizes that AI-supported consumer environments may also generate important ethical and psychological concerns. Issues such as algorithmic bias, excessive personalization, opaque recommendation systems, and consumer data privacy have become central discussions within AI-related marketing research. Consumers may develop distrust or resistance toward AI systems when automated decision-making processes are perceived as manipulative, unfair, or insufficiently transparent. Therefore, the impact of AI on consumer behavior should be evaluated not only through efficiency and personalization benefits but also through ethical responsibility and consumer autonomy perspectives.

5. Conclusion and discussion

The bibliometric analysis revealed four major thematic clusters within the literature on AI and consumer behavior. In this context, studies focusing on purchasing behavior, consumer perception, and trust stand out. Studies on e-commerce, the retail sector, and social media are particularly prominent.

The analysis of the studies showed that the rise of AI has changed consumer purchasing intentions significantly. Additionally, consumers feel more secure and are more willing to shop online, especially when using AI-supported technology.

Future studies in this field can explore how AI can create personalized experiences for consumers. This is important for both businesses and researchers. It can also examine how marketing analytics methods can target potential consumers. Evaluating the results from consumers during data analysis is crucial. This approach will help increase research on identifying target markets and making proper positioning, which is valuable for understanding consumer behavior and purchase intentions.

AI tools have become a valuable resource for businesses, helping them spend their time and energy on other important areas of digital marketing. The rise of AI has

led to major technological improvements with wide-ranging effects. In the coming years, research on how to use AI in digital marketing will be crucial for driving innovation, improving productivity, and providing personalized services. This will benefit digital marketing and support the growth and success of businesses. The e-commerce and retail sectors, in particular, can carry out extensive studies in this area, especially regarding online purchases.

Another research proposal for the field is to use AI to assess consumer behavior and patterns, predict future outcomes, and adjust advertising accordingly. AI-powered machine learning algorithms can analyze large sets of past consumer data to identify the best advertisements for consumers and find the right stage in the purchasing journey. AI helps optimize the distribution of content at the best moment by utilizing trends and data. In this context, the use of machine learning will be especially beneficial.

AI is being used in many fields, especially finance, tourism, healthcare, and retail. Each use case produces different outcomes, including better campaign performance, improved consumer experience, and increased efficiency in marketing operations. In this context, it is important to increase the number of studies on AI applications, especially in understanding consumer behavior and examining purchase intentions, while also identifying gaps in the field.

This study makes several important contributions to the growing literature on AI and consumer behavior. First, by identifying four distinct thematic clusters, the research provides a clear overview of how academic interest has changed and which areas are at the center of current studies. This mapping adds to our understanding by showing that consumer perception, purchasing behavior, and trust are the foundational elements of AI-related consumer research. Second, the study emphasizes the important role of trust as a bridge between AI applications and purchase intention. This finding supports and builds on existing views that see trust as a major factor in acceptance within technology-driven consumer settings. Third, the analysis shows how AI-supported interactions change the cognitive and emotional aspects of consumer decision-making. This contributes to a broader understanding of how digital technologies affect behavior. By bringing together these insights, the study advances the field and points out important connections that can be explored in future research. Moreover, the study contributes to the emerging AI marketing literature by consolidating fragmented research streams related to personalization, trust, automated interaction systems, and purchase intention within a unified bibliometric framework. In this respect, the findings provide a broader conceptual understanding of how AI-driven technologies are reshaping contemporary consumer decision-making processes.

The results of the study offer important insights for practitioners, especially for companies in digitally intensive markets like e-commerce and retail. Understanding the four thematic clusters helps businesses identify which AI applications have the most significant impact on consumer experience and purchase intention. For

instance, AI -driven chatbots, voice-commerce systems, and personalized recommendation tools can be used strategically to reduce consumer uncertainty, improve decision convenience, and increase the likelihood of online purchases. Additionally, the importance of trust-related findings highlights the need for transparent, fair, and explainable AI systems that build consumer confidence. Therefore, businesses should focus on designing AI interfaces ethically, ensuring that consumers feel safe in their interactions with automated decision tools.

Additionally, the growing use of AI in digital marketing shows that companies can improve targeting accuracy and campaign efficiency using predictive analytics and machine-learning models. By analyzing consumer data better, businesses can customize content, spot new trends, and connect with customers at the best times in the decision-making process. However, the increasing use of AI-driven marketing systems also raises concerns regarding consumer privacy, algorithmic transparency, and ethical decision-making processes. Excessive automation and highly personalized recommendation systems may negatively affect consumers' perceptions of autonomy and fairness in digital environments. In addition, cultural and social differences may influence how consumers perceive and respond to AI-supported interactions, suggesting that AI-related consumer behavior may vary across different market contexts. These practical insights emphasize the strategic importance of AI for boosting competitiveness, improving customer satisfaction, and building long-term relationships with consumers. Discussions on corporate digital responsibility suggest that firms using AI-driven marketing systems should prioritize ethical transparency, consumer privacy, and responsible AI practices in order to sustain long-term consumer trust and digital relationship quality (Kunz and Wirtz, 2024).

6. Limitations and future research directions

Although this study provides valuable insights into the academic landscape of AI, consumer behavior, and purchase intention, several limitations should be noted. First, the analysis relies only on peer-reviewed articles from selected bibliographic databases. This may omit relevant conference proceedings, book chapters, and non-indexed publications that also contribute to the field. Consequently, the scope of the literature may not fully represent all scholarly work. Second, the bibliometric approach depends on keywords defined by authors and indexers. Variations in terminology and inconsistent keyword use may have affected clustering results. Third, the final sample consists of only 45 studies, reflecting the early stage of this research area. However, the small number of publications also limits the range of thematic patterns that can be identified through bibliometric mapping. Finally, the study does not perform a full qualitative analysis of each article, which could provide deeper theoretical insights beyond keyword relationships. Recognizing these limitations helps put the findings into context and highlights the need for further research in this rapidly changing field. In addition, advanced bibliometric techniques such as citation analysis, co-citation analysis, and co-authorship

network analysis were not included within the scope of the present study. Future research may benefit from employing these analytical approaches in order to provide a more comprehensive understanding of the intellectual and collaborative structure of AI-related consumer research.

Given the limitations mentioned and the developing nature of the field, several promising areas exist for future research. First, scholars can broaden the bibliometric scope by adding more databases or grey literature to gain a better understanding of AI-driven consumer behavior research. Longitudinal studies comparing research from before and after 2020 may also show how digital transformation has changed theoretical and methodological approaches in the field. Second, future studies could use qualitative, experimental, or mixed-method research designs to investigate how consumers interpret and assess their interactions with AI technologies, focusing on trust, risk perception, and algorithmic transparency. Third, comparative studies across industries, such as retail, tourism, healthcare, or finance, could offer deeper insights into how AI influences consumer decision-making in different market environments.

Further research should look into cultural and demographic differences. This will help us understand if AI-supported marketing tools create similar behavioral outcomes across different consumer groups. As machine learning systems become more integrated into digital platforms, studies that examine real user data, emotional interactions, and personalized methods will be particularly useful. Researchers can also investigate the ethical aspects of AI in marketing, such as fairness, privacy issues, and consumer independence. Exploring these topics will help create responsible, clear, and consumer-focused AI applications that build long-term trust and sustainable digital marketing practices. In addition, the thematic clusters identified in the bibliometric analysis provide several directions for future research. Within the consumer behavior cluster, future studies may examine how AI-supported voice shopping environments influence trust and decision confidence. In the augmented reality cluster, researchers may investigate how AI-enhanced immersive experiences affect purchase intention in high-involvement sectors such as luxury retail and tourism. The social media and influencer marketing cluster may benefit from studies exploring the effects of AI-generated content, virtual influencers, and algorithmic personalization on consumer engagement and brand trust. Finally, future research within the purchase intention cluster may focus on how transparency, explainability, and ethical AI practices shape consumers' willingness to adopt AI-supported purchasing systems. Particular attention may be given to algorithmic bias, explainability, consumer surveillance concerns, and cross-cultural differences in AI-supported consumer environments.

Research and publication ethics statements

1. Author contribution statement

The author made a substantial, direct, and original contribution to the design of the study, data collection, analysis and interpretation, and the preparation of the manuscript. Author contribution: Ş.O.: study design, methodology development, data curation and analysis, writing of the manuscript, and review and editing. The author has read and approved the final version of the manuscript and accepts full responsibility for the accuracy, integrity, and content of the study.

2. Conflict of interest statement

The author declares that there are no financial, academic, or personal relationships or interests that could give rise to a conflict of interest in relation to the preparation or conduct of the study, the analysis of the data, the interpretation of the findings, or the publication of the manuscript.

3. Ethics statement and data availability

This study was conducted in accordance with the principles of research and publication ethics, as well as the relevant legal and institutional regulations. The research did not involve any procedures involving human participants or animal subjects, nor did it involve the collection of personal data. As the study used only publicly available and/or anonymised secondary data, ethics committee approval was not required.

The data used in this study were obtained from publicly available sources, and the relevant data sources and access information are provided in the manuscript. Additional data and materials generated during the analysis are available from the corresponding author upon reasonable request.

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