ESJ Social Sciences Peer-reviewed

The Impact of Artificial Intelligence on Online Shopping

Khuslen Gantumur
Shanghai University, China

Doi:10.19044/esj.2025.v21n4p1

Submitted: 02 January 2025
Accepted: 20 February 2025
Published: 28 February 2025

Cite As:
Gantumur K. (2025). *The Impact of Artificial Intelligence on Online Shopping*. European Scientific Journal, ESJ, 21 (4), 1. https://doi.org/10.19044/esj.2025.v21n4p1

Abstract

This research examines how artificial intelligence (AI) influences consumer purchase intentions in online shopping. Reviewing previous related studies examines how AI tools like chatbots, personalized recommendations, and user identification systems shape consumer behavior and decision-making. The findings show that AI enhances customer experiences by tailoring shopping journeys, increasing engagement, and simplifying decision-making.

The study also points out a lack of research on the ethical side of AI marketing, including concerns about data privacy, cybersecurity, and consumer trust. These issues are becoming increasingly important as AI systems handle more sensitive data. Businesses are encouraged to focus on transparency and ethical practices to build consumer trust while using AI to improve marketing strategies and customer satisfaction.

The research provides valuable insights for companies, showing how AI investments can give them a competitive edge by creating more personalized and efficient shopping experiences.

Keywords: Artificial Intelligence, Online shopping, Customer behavior

Introduction

Artificial intelligence (AI) is a rapidly advancing field of computer science. With the help of big data, AI technology has quickly developed, leading to precision marketing based on big data and intelligent marketing supported by AI. This technology allows machines and equipment to acquire

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

human-like abilities such as self-learning, self-programming, and automatic thinking (Madanchian 2024).

AI-based marketing activities such as chatbots, content recommendation systems, and user identification technology have significantly improved the relationship between users and products, creating an interactive environment to meet user needs. For instance, Amazon uses AI to create a database of people and products involved in retail sales to offer customers more personalized products and add-ons. The impact of AI on marketing has been studied from various angles, including artificial intelligence-based service adaptation, recommendation algorithms, pricing processes, and customer advisors (Li, Kui, Sun, & Zhang, 2019).

However, little research has been conducted on how AI technology affects customer purchase intentions, particularly online shopping. Therefore, this study aims to explore the relationship between the purchase intention of online shopping platform users and AI technology. Specifically, it investigates whether customer-perceived value mediates between AI technology and customer purchase intention. By understanding the impact of AI on online shopping and customer purchase intention, platform-based companies can improve their services to be more stable and user-friendly, increasing the value of customer purchases.

Origin and development of artificial intelligence

Artificial Intelligence (AI) is a technology designed to mimic human intelligence and automate tasks that typically require human intelligence, such as learning, problem-solving, and decision-making. The concept of AI can be traced back to ancient Greece, where myths of artificial beings were created. However, AI as we know it today began to develop in the mid-20th century with the advent of electronic computers and the work of pioneers such as John McCarthy, Marvin Minsky, and Allen Newell.

In the early days of AI, researchers focused on developing rule-based expert systems, which used pre-programmed rules to make decisions. However, the development of machine learning algorithms, which enable machines to learn from data and improve their performance over time, has been a major breakthrough. Deep learning, a subset of machine learning, has become particularly popular due to its ability to analyze vast amounts of data and learn from it (Li, Kui, Sun, & Zhang, 2019). AI has experienced significant development over the past few decades due to advancements in computer hardware and software, and the availability of big data. The development of AI can be attributed to three key factors: computing power, algorithms, and data. Advances in computer hardware have enabled the processing of vast amounts of data, which is necessary for machine-learning algorithms to work effectively (Guerra, 2018).

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

AI has found many applications in the business world, particularly in marketing. AI can provide insights into customer behavior and preferences and help businesses personalize their marketing efforts (Li & Zhang, 2020). For example, Amazon's recommendation algorithm uses AI to analyze a customer's purchase history and recommend products they are likely to buy. While AI has made significant progress in recent years, there are still many challenges that need to be addressed, such as ensuring the ethical use of AI, improving the reliability and interpretability of AI systems, and developing more advanced AI algorithms that can reason and solve problems in more complex and dynamic environments. The ethical and legal issues related to data privacy and bias in algorithms are among the challenges facing AI. Bias can occur when algorithms are trained on data that contains biased or incomplete information, leading to unfair or discriminatory outcomes (Song Yuchen, 2024). The ethical use of AI requires that data be collected and used to respect individual privacy and avoid discrimination. Furthermore, AI technologies have also brought about significant changes in the workforce, with some jobs being automated or transformed by AI. As AI continues to advance, businesses need to stay up-to-date with the latest developments and ensure that they use AI ethically and responsibly (Xiong, 2022).

Application of artificial intelligence technology in online shopping platforms

The use of AI technology in online shopping platforms has significantly transformed how e-commerce businesses interact with their customers. With AI-powered tools, these platforms can now collect and analyze vast amounts of data on customer behavior and consumption patterns, which helps them gain a deeper understanding of their customer base (Ovidiu-Iulian Bunea, 2024). Leveraging this data, e-commerce businesses can significantly enhance the customer experience, increase sales and revenue, and reduce operational costs. AI technologies such as intelligent recognition systems and search engines, intelligent recommendation algorithms, and virtual customer assistants offer users an intelligent shopping experience, making it more personalized, efficient, and convenient. Through AI technologies that are rational, comprehensible, and interactive, e-commerce businesses can better cater to the needs of their customers and enhance their competitiveness in the market (Sachin Sinha, 2024).

One of the key benefits of AI in online shopping is the ability to personalize the shopping experience for each customer. Self-learning AI algorithms can analyze a user's search and purchase history, as well as their preferences and browsing behavior, to provide personalized recommendations and a tailored shopping experience (Dr. Gaurav Jangra, 2022).

In addition, AI technology also enables virtual customer assistants, which can provide 24/7 customer support, answer frequently asked questions,

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

and provide personalized product recommendations. This enhances the customer experience and frees up resources for e-commerce businesses by reducing the need for human customer support agents (Chenzhuoer Li, 2020).

Regarding rationality, comprehensibility, and interactivity, AI marketing on online shopping platforms has shown promising results. By analyzing a large number of domestic and foreign research papers, books, and articles on AI marketing, it has been concluded that AI technology can provide users with intelligent AI experiences through intelligent recognition systems and search engines, intelligent recommendation algorithms, and virtual customer assistants (Szabolcs Nagy, 2020).

Experience in the optimization of the use of artificial intelligence technology in online shopping platforms

AI optimization in online shopping applications involves using advanced algorithms and data analytics to enhance various aspects of the shopping process. This includes optimizing pricing strategies, inventory management, supply chain logistics, and other operational elements. AI optimization aims to streamline these processes and improve the overall performance of the online shopping application (Lv W, 2020). Furthermore, an intelligent decision support system that employs artificial intelligence, information technology, and system engineering can significantly enhance human decision-making capabilities.

Intelligent identification systems and search engines leverage big data and AI technology to help users quickly sift through vast information on e-commerce platforms (Wu, Yu, & Zhu Y, 2020). Through text, voice, and image analysis, AI can identify issues and rank relevant products when a user enters a keyword, voice, or image into the search field. Autonomous learning neural networks have significantly reduced the image recognition error rate from 30% in 2010 to 496 in 2016. IFLYTEK's speech recognition rate reached 98% in 2019, and AI speech recognition is predicted to reach human-level accuracy by 2021. With the increased data volume, individual decision-making becomes more complex and challenging, making intelligent search engines an indispensable tool for users to find the products they need. These developments illustrate the significant benefits that AI technology can bring to users. Leading online shopping platforms in China, such as Taobao, Jingdong, and Pinduoduo, have already implemented search engines with text, image, and voice recognition capabilities.

Perceived customer value

Customer perceived value refers to the total benefit a customer receives from a product or service and the difference between its costs and available alternatives. Multidimensional value research offers a more

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

comprehensive explanation of customer behavior than a single-dimensional structure (Lidija & Christian, 2020). This research identifies different dimensions of perceived value, such as product attribute perception, cost perception, convenience perception, interactive relative preference perception, brand value perception, and lifetime value. Customer value can also be categorized into utility-based, hedonic, social, and cognitive value (Kotler, 2016).

In technology systems, the Technology Acceptance Model (TAM) considers ease of use and usefulness as independent variables that affect users' attitudes and behavior (Eroglu, Machleit, & Davis, 2003). Perceived usefulness has a more significant influence on the decision to use a system than ease of use. In internet technology, website interest is another important factor influencing users' evaluations. The value dimensions can be further decomposed into hedonic, social, and cognitive values. Perceived value is divided into three dimensions: perceived use-based value, perceived hedonic value, and perceived social value, which significantly affects customers' intention to choose online shopping channels as a mediator (Davis, Bagozzi, & Warshaw, 1989).

AI in the Marketing Industry for Online Shopping Applications

AI marketing offers in online shopping applications significantly impact customer purchase intentions. With the use of advanced algorithms and data analytics, AI can personalize product recommendations, promotional offers, and discounts based on individual customer preferences and behavior (Wang W, 2018). These tailored marketing offers enhance the customer experience, increase relevance, and create a sense of urgency, ultimately influencing customers to make purchase decisions (Kotler, 2016). Additionally, AI enables real-time interactions and chatbots that provide instant customer support and assistance, further influencing purchase intentions by addressing customer concerns and facilitating a seamless shopping process. In summary, AI marketing offers in online shopping applications drive customer engagement and influence purchase intentions, improving the overall shopping experience.

AI technology offers significant marketing benefits, revolutionizing how businesses interact with customers and drive sales (Zhang, Lv, & Zhang, 2019). Here are some key advantages:

Data Analysis and Personalization: AI algorithms can process and analyze vast amounts of data, including customer behavior, preferences, and demographics. This enables marketers to gain valuable insights and deliver personalized experiences, tailoring their messaging and offers to individual customers for a more engaging and relevant shopping experience (Ma & Sun, 2020).

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

Automation and Efficiency: AI-powered automation streamlines repetitive and time-consuming tasks like customer support and ad targeting. AI-powered chatbots and virtual assistants can provide instant and accurate responses to customer inquiries, freeing human agents to focus on more strategic activities. AI algorithms also optimize ad targeting by identifying the most effective channels and audiences, maximizing campaign efficiency and ROI.

Enhanced Recommendation Engines: AI-driven recommendation engines analyze customer data, including browsing history and past purchases, to generate personalized product recommendations (Jan, Jeannette, & Emily, 2018). By leveraging machine learning algorithms, these engines can understand customer preferences and provide relevant suggestions, increasing sales and customer satisfaction.

These benefits of AI in marketing empower businesses to deliver personalized experiences, improve operational efficiency, and drive customer engagement, ultimately leading to business growth and success in the highly competitive online shopping industry (Rosenberg, 2018). Additionally, AI technology provides marketing specialists with powerful tools and capabilities to strategize and execute targeted campaigns, resulting in improved customer satisfaction and substantial business growth in the highly competitive online shopping industry (Kunar, Raian, Aian, Venkatesan, & Lecinski, 2019). By leveraging AI-driven insights, personalized experiences, and data-driven decision-making, marketers can better understand customer preferences, optimize marketing efforts, and achieve measurable results, ultimately driving revenue and market success.

Methods

This study will use secondary research, meaning it will rely on existing research that has already been published. We will examine academic papers, industry reports, and other studies to understand how artificial intelligence (AI) affects customers' online shopping decisions. Instead of gathering new data, we will review studies that have already been done on AI-based marketing tools, such as chatbots, content recommendations, and technologies that track user behavior. We will analyze the findings from these studies and summarize their conclusions.

This study will help us understand how AI influences online shopping behavior and customer choices by looking at research from different countries and industries. All conclusions will be based on what previous studies have found, so this research will not involve any new data collection.

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

Research Purpose

This study aims to investigate the impact of artificial intelligence (AI) on customer purchase intention in the context of online shopping. The following objectives have been established to achieve this goal:

- Review and analyze existing research by foreign scholars to gain theoretical knowledge and deepen the understanding of the subject matter.
- Analyze and synthesize secondary data to determine the effects of AI-based marketing on customer purchase intention in online shopping.
- Draw conclusions based on the findings of secondary data analysis and provide recommendations for future research in this area.
- Investigate how AI-based marketing activities, including chatbots, content recommendation systems, and user identification technology, influence online shopping behavior and purchase intention.
- Explore the role of AI in enhancing the user experience of online shopping platforms.
- Provide valuable insights for platform-based companies on leveraging AI technology to enhance their marketing strategies and increase the value of customer purchases.

Selection criteria: This study reviewed literature using various academic sources, including Google Scholar, Scopus, and IEEE Xplore. The articles were selected randomly based on their relevance to AI applications in online shopping, consumer purchase intention, and marketing strategies. The selection was not restricted to a specific time frame; however, most studies reviewed were published from 2017 onward to include recent developments in AI-driven marketing. No predefined keywords were used systematically in the search. Still, articles discussing AI-driven marketing strategies, chatbots, recommendation systems, and user experience in online shopping were prioritized to align with the research objectives. The review included peer-reviewed journal articles and conference proceedings to ensure credibility and academic rigor.

Results

Artificial intelligence (AI) has become a groundbreaking technology in the 21st century, and in recent years, marketers have shown growing interest in using AI-based methods in marketing. At the same time, online shopping has evolved significantly since the late 20th century (Sachin Sinha, 2024). The use of AI in online shopping is still a relatively new development, and there is limited research on this subject. This gap creates an opportunity for new research. For analysis, we focused on studies published between 2017 and

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

2024 that explore AI's role in customer behavior, AI in shopping platforms, and purchase decision-making.

Table 1: Connected research and studies

Names of researchers and year of study	Research Topic	Research method and participants	Brief Introduction
Lassane Tapsoba, Zhitao Xiao (2017)	Analysis of AI contribution to improving BPM of E-Commerce in China: examining the case of Taobao	Case Analysis	This paper explored how AI can enhance Taobao's business process management (BPM), focusing on improving security and product quality, including AI's role in supporting better decision-making for buyers and sellers and ensuring secure online transactions. The success of AI integration depends on effective product management and IT infrastructure. The authors suggest that combining AI with BPM can help Taobao achieve its growth targets by 2020.
Chenzhuoer Li, Runjie Pan, Huiyu Xin, Zhiwen Deng (2020)	Research on Artificial Intelligence Customer Service on Consumer Attitude and Its Impact during Online Shopping	Primary data research with Quantitative data (670 participants)	This research explores consumer attitudes toward AI-powered customer service in e-commerce, finding that 71.5% are accepting or neutral, with benefits like 24/7 availability driving acceptance. At the same time, resistance stems from concerns over AI's ability to handle complex, personalized interactions. It also highlights that consumers are sensitive to AI disguised as human service, with older and less-educated individuals showing lower acceptance and more negative reactions.
Szabolcs Nagy, Noémi Hajdú (2020)	Consumer Acceptance of the Use of Artificial Intelligence in Online Shopping: Evidence From Hungary	Primary data research with Quantitative data (439 participants)	The research explored how consumers accept the use of artificial intelligence in online shopping in various ways. The Technology Acceptance Model (TAM) was an effective tool for studying consumer acceptance of AI in online shopping.
Jiwang Yin （2021）	Ai Technology and Online Purchase Intention: Structural Equation model Based on Perceived Value	Primary data research with Quantitative data (631 participants)	Research in China has examined the impact of AI-based marketing on consumers' purchase intentions in online shopping. The findings indicate that dimensions such as rationality, clarity, and interactivity of AI technology positively influence the perceived value of its usage. Moreover, the perceived value of AI technology usage positively affects consumers' purchase intentions.
Jiwang Yin and Xiaodong Qiu (2021)	Influence Mechanism Research on the Ai Marketing Technology of Online Shopping Platform on Consumers Purchase Intention- Structural Equation Model Based on Flow Experience	Primary data research with Quantitative data (306 participants)	A study examining the impact of artificial intelligence marketing on online shopping purchase intentions utilized the S-O-R model and flow experience concept. The findings revealed that user-centricity is a mediating variable between AI-based marketing dimensions of comprehensibility, interactivity, and purchase intention. However, customer focus was found not to mediate the relationship regarding optimality.

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

Fazla Rabby, Dr. Ranga Chimhundu, Dr. Rumman Hassan (2021)	Artificial Intelligence In Digital Marketing Influences Consumer Behavior: A Review And Theoretical Foundation For Future Research	Secondary data research (30 related research)	This research found how AI, particularly chatbots, enhances digital marketing by personalizing consumer experiences and improving decision-making through better product recommendations and customer engagement. AI's ability to detect patterns in consumer behavior and personalize marketing efforts is revolutionizing digital marketing, helping businesses build trust and deliver more tailored, transparent, and satisfying consumer experiences.
Marcello M. Mariani, Rodrigo Perez‐Vega, Jochen Wirtz (2021)	AI in marketing, consumer research and psychology: a systematic literature review and research agenda	Secondary data research Descriptive analyses (Metadata 4,488 related articles)	This study examines the intersection of AI with marketing, consumer research, and psychology, identifying eight key research clusters and emphasizing the need for cross-disciplinary collaboration. It highlights the importance of diverse theoretical frameworks, such as game theory and cognitive dissonance. It calls for further exploration of emerging theories like anthropomorphism and construal level theory (CLT) in AI research.
Dr. Gaurav Jangra, Monika Jangra (2022)	Role of Artificial Intelligence in Online Shopping and its Impact on Consumer purchasing behavior and Decision.	Primary data research with Quantitative data (200 participants)	The study focused on customers who use AI technology while shopping online and looked at the factors that affect their buying behavior when using AI. The results showed that AI influences significant differences in consumer behavior.
Dimitris C. Gkikas, Prokopis K. Theodoridis (2022)	AI in Consumer Behavior	Secondary data research (85 related research)	It includes the role of artificial intelligence (AI) in shaping e-commerce, online shopping experiences, and consumer behavior, highlighting how AI technologies like personalized recommendations and virtual assistants improve consumer satisfaction and trust. This research also identified AI challenges, such as privacy concerns and algorithmic biases, emphasizing the need for responsible AI deployment to ensure ethical practices in e-commerce.
Md.Salamun Rashidin, Dong Gang (2022)	The Role of Artificial Intelligence in Sustaining the e-Commerce ecosystem: Alibaba vs. Tencent	Primary data research with Quantitative data (649 participants) Qualitative data (28 participants)	This research explores how AI is transforming the e-commerce ecosystem in China, with Alibaba and Tencent heavily investing in AI technologies to enhance their platforms and build consumer trust. It also highlights challenges, such as customer resistance to AI adoption driven by switching costs, risk perceptions, and the potential for negative word-of-mouth.
Ying Xiong (2022)	The Impact of Artificial Intelligence and Digital Economy Consumer Online Shopping Behavior on Market Changes	Primary data research with Quantitative data (100 participants)	This paper examines the impact of Artificial Intelligence (AI) on consumer behavior in the e-commerce sector. It highlights how AI transforms customer decision-making processes, from product search and comparison to final purchase decisions.
Frida Eickhoff, Leonid Zhevak (2023)	The consumer attitude towards AI in marketing - An	Primary data research with Quantitative data	This study explores how consumer attitudes toward AI in marketing influence their purchase intentions, finding that AI's compatibility with consumer

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

	experimental study of consumers attitude	(114 participants)	expectations positively impacts attitudes and purchase behavior. It also applies the Theory of Planned Behavior and Diffusion of Innovation Theory, showing that while compatibility influences attitudes, the origin of content (AI-generated vs. human-created) does not significantly affect purchase intentions.
Muhammad Farooq, Yuen Yee Yen (2024)	Artificial Intelligence in Consumer Behavior: A Systematic Literature Review	Primary data research with Quantitative data	This article explores how AI reshapes marketing by altering consumer behavior. Including AI influence on purchase intentions, Consumer trust in AI, Automation in Marketing, and Consumer behavior mapping.
Ovidiu-Iulian Bunea ,Răzvan-Andrei Corbos,Sorina Ioana Mis,Monica Triculescu, Andreea Trifu (2024)	The Next-Generation Shopper: A Study of Generation-Z Perceptions of AI in Online Shopping	Primary data research with Quantitative data (1128 participants)	This study examines how Generation Z perceives AI's usefulness and ease of use in online shopping, finding that exposure to, daily use of, and knowledge about AI positively impact their purchase intentions and perceptions of AI. The research shows that these factors are mediated by perceived usefulness and ease of use, enhancing Gen Z's likelihood to purchase through AI-powered platforms.
Erik Hermann , Stefano Puntoni (2024)	Artificial intelligence and consumer behavior: From predictive to generative AI	Secondary data research (70 related research)	AI-driven products and services are rapidly transforming consumer behavior, with AI research in marketing growing unprecedentedly. This paper explores two major development stages in AI: algorithmic predictions, which evoke both positive and negative consumer reactions based on various factors, and the emerging field of GenAI, which has the potential to revolutionize consumer behavior research by enabling new forms of task fulfillment and content generation.
Sachin Sinha, Deepti Sinha, Tarun Dalmia (2024)	Role of AI in Enhancing Customer Experience in Online Shopping,	Primary data research with Quantitative data (416 participants)	This paper examines how Amazon uses AI to shape consumer behavior, including personalized product recommendations, dynamic pricing models, and curated customer reviews to enhance the shopping experience and influence purchase decisions. The study demonstrates that these AI-driven strategies lead to higher conversion rates, sales, and more informed consumer choices.
Pengyu Liu, Hui Zhang (2024)	Role of Artificial Intelligence Information in Product Selection for Chinese Consumers	Primary data research with Quantitative data (392 participants)	This paper examines how AI-driven information influences product selection and purchase behavior among Chinese consumers, highlighting the importance of accurate text retrieval in AI recommendations while noting lower acceptance of image and voice recognition technologies. It finds that AI's ability to provide valuable insights enhances product consideration, purchase intentions, and emotional engagement, ultimately leading to higher sales.

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

Song Yuchen, Wang Ying (2024)	Nexus Between Artificial Intelligence, Consumer Behavior, Consumer Experience, and Purchase Intention: A Case from Shenzhen	Primary data research with Quantitative data (437 participants)	This study examines how AI, consumer behavior, consumer satisfaction, and hedonic motivation influence purchase intention among Chinese consumers, finding that both AI and hedonic motivation significantly impact purchase decisions. The research highlights that hedonic motivation strengthens the relationship between AI-related information and purchase intention, with advanced data analysis confirming its importance in driving consumer behavior.
Lalit Singla, Anju Nandrajog, Navjot Singh (2024)	AI and Consumer Behavior: Innovations in Marketing Strategy and Consumer Engagement	Case studies	This study demonstrates how AI enhances digital marketing strategies, with AI-based ads increasing click-through rates by 25% and AI-powered chatbots significantly improving customer satisfaction. It also highlights the need for future research on AI's long-term effects on consumer behavior, ethical considerations, and integration with emerging technologies like blockchain and augmented reality.
Sanju Maharjan (2024)	Artificial Intelligence in Online Shopping: Impact on Con-sumer Behaviour	Primary data research with Qualitative data (5 Participants)	The research found that AI-powered features such as personalized recommendations, price comparison tools, and virtual assistants have been shown to enhance consumer satisfaction, trust, and engagement with online retailers. However, ethical considerations, including privacy concerns and algorithmic biases, pose challenges that must be addressed to ensure responsible AI deployment in e-commerce settings.

Discussions

This study aimed to investigate the impact of artificial intelligence (AI) on customer purchase intention in online shopping. After carefully reviewing existing research and analyzing secondary data from over 30 studies, the following key conclusions can be made about the research objectives:

- Reviewing and Analyzing existing research by foreign scholars: The study confirmed that AI significantly shapes customer behavior and marketing strategies. For example, Eickhoff and Zhevak (2023) found that AI's compatibility with customer expectations positively impacts attitudes, influencing purchase decisions. Similarly, Li et al. (2020) showed that customers widely accept AI customer service because it increases efficiency and convenience. Liu and Zhang (2024) also found that AI's ability to provide accurate information helps customers make better purchasing decisions.
- Effects of AI-based marketing on purchase Intention: The secondary data analysis highlighted that AI-powered marketing tools like chatbots, personalized recommendations, and user identification systems directly enhance customer purchase intention. Eickhoff and

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

Zhevak (2023) found that customized content and improved user interaction significantly boost engagement and purchase intention. Singla et al. (2024) also showed that AI-based advertisements have a higher click-through rate, increasing customer satisfaction. In e-commerce, Rashidin and Dong (2022) demonstrated that AI tools foster trust and encourage purchases by improving risk management.

- How AI-based marketing influences online shopping behavior: AI marketing tools like chatbots and recommendation systems directly influence online shopping behavior. Li et al. (2020) showed that AI customer service, which is available 24/7, positively affects purchase intentions because it offers quick and objective assistance. Liu and Zhang (2024) also found that AI's ability to predict customer preferences improves product selection, which leads to higher purchase intentions. AI's predictive capabilities make online shopping quicker and more efficient, leading to more conversions.
- Role of AI in enhancing the user experience: AI significantly improves the overall user experience on online shopping platforms. Singla et al. (2024) and Eickhoff and Zhevak (2023) emphasized that AI tools such as personalized content and AI-driven virtual assistants make the shopping process smoother and more enjoyable. Li et al. (2020) showed that AI customer service is widely accepted, mainly because it operates 24/7. Liu and Zhang (2024) also found that accurate AI-driven insights into product information improve customer satisfaction and increase their likelihood of buying.
- Insights for platform-based companies: This research offers practical insights for companies leveraging AI to boost their marketing strategies and engage customers. Rashidin and Dong (2022) showed that AI adoption in customer service and personalization can build customer loyalty and increase sales. Eickhoff and Zhevak (2023) also pointed out that AI helps shape customer attitudes, which can lead to stronger purchase intentions. Yuchen and Wang Ying (2024) emphasized that AI tools, when implemented ethically, can enhance trust and engagement. Singla et al. (2024) and Liu and Zhang (2024) also found that AI improves customer satisfaction and the overall shopping experience, which businesses must focus on when using AI technologies.

Conclusions

In conclusion, this study highlights how AI significantly influences customer purchase decisions and online shopping habits. AI tools like chatbots, recommendation systems, and personalized ads help improve customer experiences, boost engagement, and drive sales. Emotional

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

satisfaction, as discussed by Song Yuchen and Wang Ying (2024), plays a key role in influencing purchase decisions. However, future research should focus more on ethical issues related to AI marketing, such as data privacy and customer trust, especially in diverse cultural contexts.

AI has the potential to revolutionize online shopping, and businesses that embrace these technologies can stay ahead by offering personalized, engaging, and efficient shopping experiences. However, companies must remain aware of ethical concerns to ensure long-term customer trust and business success.

Suggestions for Future Research

The study showed that AI's ability to personalize the shopping experience-through tailored product recommendations and targeted ads-drives purchase intention. Song Yuchen and Wang Ying (2024) found that emotional satisfaction (or hedonic motivation) plays a significant role in strengthening the connection between AI marketing and purchase intention. However, the study also pointed out that there is a gap in research when it comes to the ethical side of AI marketing. Future studies should focus on critical issues like customer trust, data privacy, and the ethical challenges associated with AI. For example, transparency in how customer data is used and the potential misuse of personal information need further exploration. Trust in AI is heavily influenced by customers' perceptions of data handling, as noted by Rashidin and Dong (2022). Ensuring customer privacy is essential for the long-term adoption of AI technologies. Additionally, the growing risk of cyberattacks on AI platforms means that cybersecurity must also be a priority in future research (Eickhoff & Zhevak, 2023).

Another area for future investigation is how AI's impact varies across different cultural and regional contexts. As pointed out by Song Yuchen and Wang Ying (2024), AI's influence on purchase intention may differ depending on local attitudes toward privacy and data protection laws. Research should examine how cultural factors shape customer trust and responses to AI in marketing, particularly in regions with strict data privacy regulations, like the EU.

In summary, while AI has proven effective in enhancing purchase intention, addressing ethical concerns such as trust, privacy, and cybersecurity is crucial. Future research can help ensure that AI in marketing is used responsibly and securely, benefiting businesses and customers.

Conflict of Interest: The author reported no conflict of interest.

Data Availability: All data are included in the content of the paper.

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

Funding Statement: The author did not obtain any funding for this research.

References:

1. Chenzhuoer Li, R. P. (2020). Research on Artificial Intelligence Customer Service on Consumer Attitude and Its Impact during Online Shopping. Journal of Physics: Conference Series.
2. Davis, F., Bagozzi, R., & Warshaw, P. (1989). User acceptance of computer technology: A comparison of two theoretical models . Manag. Sci. , 35, 982-1003.
3. Dr. Gaurav Jangra, M. J. (2022). Role of Artificial Intelligence in Online Shopping and its Impact on Consumer purchasing behavior and Decision. Second International Conference on Computer Science, Engineering and Applications (ICCSEA).
4. Eroglu, S., Machleit, K., & Davis, L. (2003). Empirical testing of a model of online store atmospherics and shopper responses. Psychol. Mark., 20, 139–150.
5. Fazla Rabby, D. R. (2021). Artificial Intelligence In Digital Marketing Influences Consumer Behaviour: A Review And Theoretical Foundation For Future Research. Academy of Marketing Studies Journal , 25(5).
6. Frida Eickhoff, L. Z. (2023). The consumer attitude towards AI in marketing - An experimental study of consumers attitude.
7. Guerra, A. (2018). Millennial Consumption Values in Artificial Intelligence: An Exploratory Study of Millennial Consumer Values in Artificial Intelligence.
8. Jan, K., Jeannette, P., & Emily, T. J. (2018). Artificial intelligence in advertising. Advert. Res., 9, 263-267.
9. Jiwang Yin, X. Q. (18 May 2021). AI Technology and Online Purchase Intention: Structural Equation Model Based on Perceived Value.
10. Kotler, P. (2016). Marketing Management. Upper Saddle River: N.J, Prentice Hall, .
11. Kunar, V., Raian, B., Aian, B., Venkatesan, V., & Lecinski, J. (2019). Understanding the Role of Artificial Intelligence in Personalized Engagement Marketing. Calif. Manag. Rev. , 8, 1-21.
12. Lalit Singla, A. B. (2024). AI and Consumer Behavior: Innovations in Marketing Strategy and Consumer Engagement .
13. Lassane Tapsoba, Z. X. (2017). Analysis of AI contribution to improving BPM of E-Commerce in China: examining the case of Taobao. International Conference on Financial Management, Education and Social Science (FMESS 2017).

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

14. Li, X., & Zhang, X. (2020). People-oriented: Personalized Recommendations in the Era of Artificial Intelligence. J. Suibe, 27, 90-99.
15. Li, X., Kui, W., Sun, Y., & Zhang, C. (2019). Consumer shopping experience research based on artificial intelligence. . Mod. Inf. Technol. , 3, 153–155.
16. Lidija, L., & Christian. (2020). Consumers' reasons and perceived value co-creation of using artificial intelligence-enabled travel service agents. . W. J. Bus. Res., 129, 891–901. .
17. Lv W, Y. Y. (2020). Effects of consumers' perceived personalization on their click-through intention under AI personalized recommendations. J. Manag. Sci., 33, 44-57.
18. Ma, L., & Sun, B. I. (2020). Machine learning and AI in marketing Connecting computing power to human insights. Res. Mark. , 37, 481-504.
19. Madanchian, M. (2024). The impact of artificial intelligence marketing on e-commerce sales. Systems, 12(10), 429.
20. Maharjan, S. (2024). Artificial Intelligence in Online Shopping: Impact on Consumer Behaviour.
21. Marcello M. Mariani, R. P.-V. (2021). AI in marketing, consumer research and psychology: a systematic literature review and research agenda. Psychology & Marketing, 9(4), 755-776.
22. Muhammad Sholahuddin, R. A. (2022). Do Artificial Intelligence and Digital Marketing Impact Purchase Intention Mediated by Perceived Value? Journal of Business and Management Studies.
23. Ovidiu-Iulian Bunea, R.-A. C. (2024). The Next-Generation Shopper: A Study of Generation-Z Perceptions of AI in Online Shopping. J.Theor.Appl, 19, 2605–2629.
24. Pengyu Liu, H. Z. (2024). Role of Artificial Intelligence Information in Product Selection for Chinese Consumers.
25. Rosenberg, D. (2018). How marketers can start integrating AI in their work. Harv. Bus. Rev. Digit. Articals, 5, 2-5.
26. Sachin Sinha, D. S. (2024). Role of AI in Enhancing Customer Experience in Online Shopping. International Conference on Reliability. Infocom Technologies and Optimization.
27. Sajjad Nazir , Sahar Khadim , Muhammad Ali Asadullah , Nausheen Syed. (2023). Exploring the influence of artificial intelligence technology on consumer repurchase intention: The mediation and moderation approach.
28. Shirie Pui Shan Ho, M. Y. (2023). The role of artificial intelligence in consumers' brand preference for retail banks in Hong Kong. Journal of Financial Services Marketing.

 ISSN: 1857-7881 (Print) e - ISSN 1857-7431

29. Song Yuchen, W. Y. (2024). Nexus Between Artificial Intelligence, Consumer Behavior, Consumer Experience, and Purchase Intention: A Case from Shenzhen. Profesional de la información.
30. Szabolcs Nagy, N. H. (2020). Consumer Acceptance of the Use of Artificial Intelligence in Online Shopping: Evidence From Hungary.
31. Wang W, L. S. (2018). Research on the influence of AI on consumption and shopping experience in the new retail environment-Based on the perspective of commercial retail reform and reconstruction of people-goods-yard system. J. Commer. Econ, 17,5-8.
32. Wu, J., Yu, H., & Zhu Y, Z. X. (2020). Impact of Artificial Intelligence recommendation on consumers willingness to Adopt. J. Manag. Sci. , 33, 29-43.
33. Xiong, Y. (2022). The Impact of Artificial Intelligence and Digital Economy Consumer Online Shopping Behavior on Market Changes .
34. Zhang, Y., Lv, W., & Zhang, J. (2019). Marketing research of AI: Prospect and challenges. J. Manag. Sci., 32, 75-86.