Original Research Article
ISSN: 3041-5403
Journal Homepage: https://bitsjournal.researchfloor.org/

Artificial Intelligence in E-Commerce: Analyzing Its Role in Shaping Purchase Intentions and Behaviours

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Citation: Mary Priteena, Adhithi Tamilselvan and Priya S. K. (2025). Artificial Intelligence in E-Commerce: Analyzing Its Role in Shaping Purchase Intentions and Behaviours. *Journal of Business, IT, and Social Science*.
DOI: https://doi.org/10.51470/BITS.2025.04.02.11

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20 July 2025: Received | 04 August 2025: Revised | 10 September 2025: Accepted | 08 October 2025: Available Online

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ABSTRACT

Recent advancements in artificial intelligence (AI) are revolutionizing commerce at an unprecedented pace. As these innovations continue to redefine every stage of the commercial landscape, it has become essential for business leaders to anticipate emerging trends and strategically future-proof their organizations to thrive in this evolving digital paradigm and to compete in today's digital economy, each e-commerce platform has implemented a personalized recommendation service. In e-commerce, personalized shopping experiences have enabled through the advanced recommendation systems with AI. AI-driven recommendations impact on consumer perceptions and online purchase behavior examined in this study. This study uses quantitative, cross-sectional survey method in E-commerce users. Also examines their ethical concerns and their awareness of AI with respect to personalization, trust, and ethical concerns. A revolutionary change has been brought about by the integration of artificial intelligence in e-commerce. AI has enhanced personalization, optimized operations, and improved customer support systems. A significant impact has been made on consumer behavior, decision-making, and buying patterns as a result of these advancements. With the help of descriptive statistics, user perceptions of AI technologies were investigated. Structural equation modeling (SEM) used to analyse the causal relationships between personalization, perception, behavioral preferences, and opinions about targeted advertising. AI-driven recommendations seem to be perceived as more influential by consumers when personalization is used, but shopping preferences do not change directly as a result of personalization. Users' opinions on targeted ads are negatively impacted by increased personalization, which correlates with reduced AI awareness. A practical consequence of these findings is to offer practical implications for e-commerce platforms that wish to optimize their AI-based personalization strategies.

Keywords: *AI Recommendations, Purchase behavior, Consumer Perceptions, Online Shopping, Predictive Analytics, E-commerce Personalization.*

Introduction

Artificial intelligence (AI) has emerged as a transformative force in the evolution of modern e-commerce, reshaping how businesses interact with consumers and manage operations [1]. The integration of AI technologies into e-commerce platforms enables the automation of key business processes, enhances decision-making efficiency, and drives profitability through data-driven insights. By leveraging vast amounts of customer data—including browsing patterns, purchase histories, and demographic details—AI allows businesses to develop a deeper understanding of consumer behavior and preferences [2]. This capability empowers companies to design highly personalized experiences, optimize product recommendations, and implement targeted marketing strategies that strengthen customer engagement and loyalty.

AI applications in e-commerce now extend beyond product recommendations to include predictive analytics, inventory management, fraud detection, dynamic pricing, and intelligent chatbots that enhance user interaction and support [3]. Voice commerce and localization technologies are improving accessibility and inclusivity for global audiences. Businesses that effectively integrate AI into their digital ecosystems are gaining a competitive edge by offering seamless, efficient, and customer-centric online experiences. As AI continues to advance, its role in shaping the future of e-commerce will only deepen—driving innovation, improving operational sustainability, and redefining the boundaries of digital commerce.

As technology is continuing to evolve and improve, the future of e - Commerce business with AI looks bright. E- Commerce businesses can reduce costs while improving the online shopping experience through enhanced automation capabilities [4]. The advanced technologies such as virtual assistants, AI-driven analytics, historical sales data, and robotic process automation, the e-commerce industry can streamline operations and enhance customer satisfaction by providing seamless and personalized shopping experiences [5]. Rapid technological advancements have expanded the potential applications of AI in e-commerce, making its impact virtually limitless. The integration of AI has fundamentally transformed how retailers manage business processes and engage with consumers, allowing for greater efficiency, precision, and adaptability in a competitive marketplace. AI empowers businesses to deliver personalized services at scale—adapting

product recommendations, pricing strategies, and marketing efforts based on real-time customer insights [6]. Companies that proactively adopt AI technologies are gaining a significant competitive advantage, as they can anticipate customer needs, optimize operational efficiency, and create added value for both consumers and stakeholders. In contrast, organizations that lag in AI adoption risk losing relevance in the fast-evolving digital economy.

Thus, the primary objective of this study is to assess how artificial intelligence (AI) can influence purchase behavior among online consumers in e-commerce environments. To examine how consumers perceive AI-enabled personalization features, such as recommendation relevance, trust, and privacy, and how such perceptions influence their shopping decisions, the study will analyze consumer perceptions. It also investigates the causal relationships between personalized experiences, user perceptions, awareness of AI technologies, and behavioral responses using structural equation modeling (SEM). As a result of the findings, e-commerce platforms hoping to optimize recommendation systems will be able to gain empirical evidence regarding how AI affects consumer behavior. Based on these objectives the following hypotheses evaluated in this study.

H1: Consumer personalization has a significant positive effect on consumer's perception of
AI- driven recommendations.
H2: Consumer personalization significantly influences e-commerce usage preferences.
H3: Consumer personalization significantly affects awareness and understanding of AI in e-
commerce.
H4: Perceived challenges and ethical concerns negatively influence consumer opinion toward
AI -based targeted advertisements.

Background of the study

AI technologies are revolutionizing e-commerce by enabling personalized, data-driven customer experiences. Through advanced algorithms, e-commerce platforms can tailor shopping experiences by recommending products based on customers' purchase histories, browsing behaviors, and preferences [7]. This personalization not only fosters stronger customer loyalty but also increases sales conversion rates. Furthermore, AI systems analyze search engine queries and behavioral trends to attract potential customers more effectively. In addition to enhancing sales, AI optimizes pricing strategies through dynamic pricing models that account for seasonal variations, market demand, and supply chain fluctuations, ensuring optimal sales margins for businesses [8].

AI has also transformed customer service through intelligent chatbots and virtual assistants, offering round-the-clock support and automating responses to common queries and order requests. These technologies reduce the workload of customer service teams while providing customers with faster, more efficient interactions. AI-powered analytics tools process vast amounts of data to reveal patterns in customer behavior, purchasing trends, and market preferences [9]. This enables businesses to design targeted marketing campaigns, tailor promotions, and improve customer engagement.

Beyond customer-facing applications, AI contributes significantly to operational efficiency across the supply chain—enhancing inventory management, automating order fulfillment, and enabling predictive logistics to minimize waste and accelerate delivery times [10]. Moreover, AI-driven fraud detection systems improve the security of online transactions by analyzing behavioral data, identifying suspicious patterns, and flagging fraudulent activities in real time. Finally, AI strengthens forecasting accuracy across domains such as sales, pricing, and demand prediction. As machine learning models continuously evolve, they enable businesses to anticipate customer needs, optimize resource allocation, and sustain competitive advantage in the dynamic e-commerce ecosystem [11].

The integration of artificial intelligence (AI) into e-commerce has brought about a revolutionary transformation in the digital marketplace. AI has enhanced personalization, optimized operations, and improved customer support systems, fundamentally reshaping how businesses and consumers interact online [12]. These technological advancements have significantly influenced consumer behavior, decision-making processes, and purchasing patterns. AI, companies can deliver personalized shopping experiences, predict customer preferences, and enhance decision-making—ultimately fostering greater engagement and loyalty among consumers [14].

According to [15], e-commerce encompasses the activities and services involved in buying and selling goods or services, as well as transferring funds through the Internet. The study emphasizes that e-commerce relies heavily on digital technologies and platforms—such as websites, mobile applications, and social media—to facilitate transactions efficiently. This technological dependence has transformed business operations and consumer behavior, offering convenience, accessibility, and a borderless marketplace. [16] further note that AI applications enhance both customer experience and operational efficiency in e-commerce through the use of intelligent agents. These agents—such as automated negotiation bots—collect information, search for products, negotiate transactions, and evaluate outcomes, ultimately generating greater financial benefits for both consumers and vendors. Similarly, [17] highlight the positive influence of AI on consumer buying behavior and purchase intention, underscoring the importance of adopting AI-driven technologies in retail organizations.

[18] emphasize the need to integrate product category characteristics and individual differences into recommender system design within e-commerce personalization frameworks. Their study highlights the persuasive role of both content-based and collaborative filtering techniques in shaping consumer decisions. Likewise, [18] examine the interplay between AI and digital marketing, demonstrating their combined effect on purchase intentions and perceived product value within the Shopee marketplace. Their findings reveal that digital marketing exerts a favorable influence, mediated by the perceived benefits experienced by consumers. [19] explore the impact of AI on the purchasing behavior of millennials, identifying key factors that shape satisfaction levels and buying patterns among this tech-savvy demographic.

[20] emphasize the importance of AI in relationship marketing, fostering seamless, interconnected, and personalized engagements. Additionally, Adam et al. (2020) and Moriuchi (2019) highlight the impact of AI-based chatbots and voice assistants in enhancing user compliance and consumer engagement through personalized assistance. These studies collectively suggest that integrating AI into e-commerce can

enhance marketing strategies, utilize data for informed decision-making, improve customer relationship management, and facilitate seamless, personalized customer interactions. This integration promises improved performance, increased customer satisfaction, and sustained competitiveness in the digital marketplace. [21] highlight AI's potential to enhance viral marketing by analyzing recommendation networks, understanding user behavior, identifying niche products, and targeting high-propagation communities. [22] underscores AI and machine learning's critical role in leveraging data from IoT, cybersecurity, and social media for e-commerce in the Fourth Industrial Revolution. [23] emphasize the importance of AI in relationship marketing, fostering seamless, interconnected, and personalized engagements. Additionally [24] highlight the impact of AI-based chatbots and voice assistants in enhancing user compliance and consumer engagement through personalized assistance.

Research Methodology

To investigate how AI-driven product recommendations influence e-commerce consumer behavior, this study utilized a quantitative, cross-sectional study design. For the purpose of ensuring representative demographics, a structured questionnaire was administered to 300 online shoppers stratified by age, occupation, and income level. AI awareness, personalization perception, trust in AI recommendations, ethical concerns, and shopping behavior were measured using Likert-scale items [25].

In order to understand consumer perceptions regarding AI-based recommendations, descriptive statistics were used. Using structural equation modeling (SEM), the causal relationships between personalization, perception, usage preferences, and ethical attitudes were examined.

Initially, EFA and CFA were used to identify construct reliability and measurement validity, followed by SEM for testing the hypothesized structural pathways. A statistical analysis was performed using SPSS software. Adequacy of the model was tested using fit indices and reliability measures including Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). In this study, we combined descriptive insights with robust causal inference to provide a comprehensive understanding of AI's impact on online purchases.

Results and Discussion

At the introductory level of research, Exploratory Factor Analysis (EFA) became a necessary guiding factor for Analyzing the Role of Artificial Intelligence in E-Commerce. As a final stage, statistical tests are conducted to check for the existence and strength of a given relationship. Structural Equation Modeling (SEM) is the main statistical method for hypothesis testing applied to study the formal impact of purchase behaviors of customers [26]. A comprehensive analysis of each attribute in the data set focusing on the means, the standard deviations, and the subsequent impacts of the perceptions of the respondents regarding AI in e-commerce.

Table 1: Descriptive Statistics

Statements	Code for SPSS	Mean	Std. Error	Std. Deviation
Awareness and understanding of AI in E-commerce				
AI-driven recommendations improve my shopping experience.	AWA1	3.42	0.061	1.055
AI chatbots provide helpful customer support.	AWA2	3.26	0.061	1.060
I prefer AI-driven personalized advertisements.	AWA3	3.42	0.063	1.090
AI enhances my overall satisfaction with online shopping.	AWA4	3.45	0.060	1.035
I am concerned about AI collecting my data for personalized recommendations.	AWA5	3.48	0.059	1.023
Perceptions of AI-Driven Personalization				
AI recommendations are helpful in finding relevant products.	PER1	3.51	0.062	1.080
AI recommendations introduce me to new products I might like.	PER2	3.32	0.066	1.144
AI recommendations are often irrelevant to my interests.	PER3	3.34	0.070	1.218
I trust AI recommendations.	PER4	3.51	0.063	1.083
Express opinion regarding AI-based targeted advertisements				
Targeted ads are useful for learning about promotions.	OPI1	3.57	0.053	0.917
Targeted ads are intrusive and annoying.	OPI2	3.58	0.056	0.966
Targeted ads influence my purchasing decisions.	OPI3	3.59	0.053	0.923
I am concerned about my data privacy in relation to targeted ads.	OPI4	3.51	0.061	1.055
Challenges & Ethical Considerations				
AI-driven advertisements sometimes feel intrusive.	CEC1	3.18	0.069	1.202
AI recommendations may reinforce existing biases.	CEC2	2.82	0.073	1.272
I worry about the misuse of my personal data in AI-driven marketing.	CEC3	3.35	0.065	1.122
AI technology in e-commerce needs more transparency.	CEC4	3.04	0.066	1.152
AI should be regulated to protect consumers from unethical practices.	CEC5	3.02	0.079	1.362
E-commerce Usage & Preferences				
Online shopping is more convenient than physical shopping.	USP1	2.33	0.070	1.210
I trust online reviews when making a purchase.	USP2	2.27	0.068	1.173
Discounts and offers significantly impact my buying decisions.	USP3	2.30	0.073	1.258
I prefer shopping from well-known e-commerce platforms.	USP4	2.39	0.069	1.199
Delivery time influences my purchase decisions.	USP5	2.42	0.073	1.271

The responses exhibited a medium level of awareness and understanding of the concept of AI in online shopping. The statement, "AI enhances my overall satisfaction with online shopping" (AWA4), had the highest mean of 3.45, which implies a positive perception. In the same manner, the statement "I am concerned about AI collecting my data..." (AWA5) yielded a comparable mean of 3.48, indicating that consumers indeed appreciate the benefits of AI, while they are also concerned about privacy issues. Similarly, "AI-driven recommendations improve my shopping experience" (AWA1) and "I prefer AI-driven personalized advertisements" (AWA3) are statements that hold a moderately positive view, having one mean value of 3.42. "AI chatbots provide helpful customer support," (AWA2), having a low mean of 3.26 regarding the statement, implies a more negative view of chatbot efficacy. The standard deviations across items (~1.02–1.09) suggest that there is fair variance in individual experiences and opinions. Generally, respondents give a favorable opinion regarding AI personalization. The statement "AI recommendations are helpful to find relevant products" (PER1) and "I trust AI recommendations" (PER4) share the highest mean score of 3.51, which so strongly suggests the agreement with the utility and reliability of AI that it counts

one for the other. However, "AI recommendations introduce me to new products I might like" (PER2) and "AI recommendations are often irrelevant to my interests" (PER3) are comparatively lower with means of 3.32 and 3.34, respectively. Thus, while many find recommendations helpful, there are others who find them misaligned with their interests. The significant standard deviation of 1.218 for PER3 indicates that respondents tend to disagree considerably with each other, giving a more polarized opinion on the relevance of AI suggestions.

The balance of opinions regarding AI advertising clearly indicates utility and concern. Respondents concurred with "I think targeted advertising influence my purchases" (OPI3) and "I find targeted ads useful for learning about promotions" (OPI1) having means greater than 3.57, highest in the dataset. However, "Targeted ads are intrusive and annoying" (OPI2) also received nearly the same mean (3.58), indicating a contradiction-greatly helpful and annoying advertisements. "I'm concerned about my data privacy..." (OPI4), too, got scored 3.51, indicating the ever-present privacy concerns for users. Low standard deviations (between 0.92 and 1.05) seem to indicate a shared experience. The category indicating the challenges and ethical considerations of AI and users' apprehension about its ethical aspects. The item "I worry about the misuse of my personal data in AI-driven marketing" (CEC3) secured the highest mean (3.35). This reinforces continuing concerns. In contrast, "AI making recommendation might reinforce existing biases" (CEC2) has the lowest mean of 2.82. This may point either to a limited awareness of the issue or a much lesser agreement with it as a deep-set ethical issue. Respondents were moderately inclined to agree that "AI technology needs to be more transparent" (CEC4, 3.04) and, too, that "AI should be regulated to protect the consumer" (CEC5, 3.02). The standard deviations stand out here, especially 1.362 for CEC5. This indicates that there are still a lot of disagreements among respondents concerning the regulation and ethics of AI marketing, the statements is characterized by relative lower mean scores, thus being indicative of more neutral or just slightly negative attitudes. Such statements as "Online shopping beats physical shopping" (USP1) and "Discounts and offers definitely have a big role in my buying decisions" (USP3) could easily get means of 2.33 and 2.30. Likewise, having lower mean figures are trust about online reviews (USP2, 2.27) and confirmed patronage of popular sites (USP4, 2.39). The highest mean in this section is that of "Delivery time influences my purchase decisions" (USP5) at 2.42, reflecting that delivery time is still talking about a relatively stronger role. Any attempt to convince would end here at average standard deviations of 1.17 - 1.27, testifying to a diversified preference and attitude on online shopping behavior, the structural model was subjected to path analysis. The model is also known to fit with respect to the fit indices [26]. The hypotheses of this study were tested using the significance of uniform regression weights for the endogenous test variables (i.e. p-value) alongside the regression coefficient CR and standard error SE. The path diagram output indicated that e-commerce is positively associated with AI personalization [27].

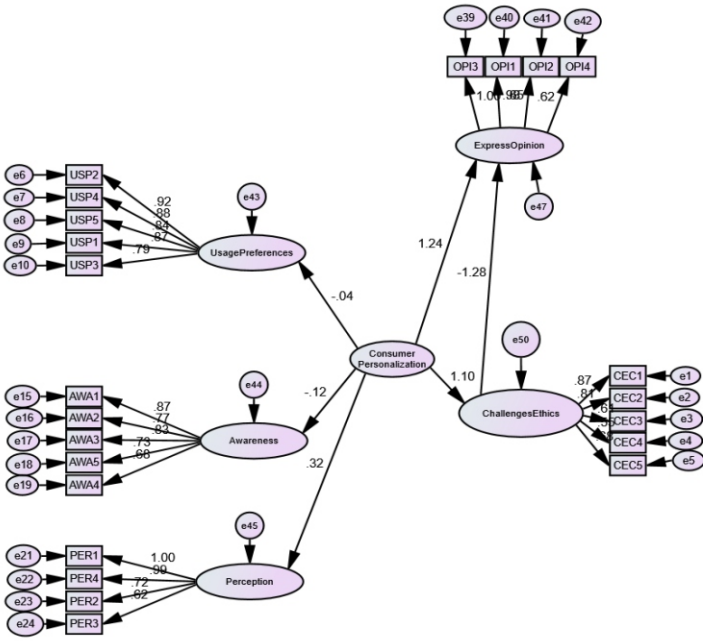

Figure 1: Structural Equation Modelling

Table 2: Path Coefficients

PATH			ESTIMATE	S.E	C.R	p-value	Results
Challenges and Ethics	<--	Consumer Personalization	1.000				
Usage Preferences	<--	Consumer Personalization	-0.035	0.053	-0.653	0.514	Not Supported
Awareness	<--	consumer Personalization	-0.093	0.048	-1.936	0.049	Supported
Perception	<--	consumer Personalization	0.297	0.066	4.488	***	Supported
Opinion	<--	Challenges and Ethics	-1.131	0.142	-7.97	***	Supported

Consumer Personalization → Challenges and Ethics: The standard path estimate from Consumer Personalization to Challenges and Ethics is 1.000, indicating likely position as a reference path for purposes of standardization within the model. This means that Consumer Personalization is a significant determinant for perceived challenges and ethical concerns in AI-driven e-commerce (Saleh & Zeebaree, 2025). This relationship also means that as personalization in consumer interaction increases, the challenges concerning ethical implications such as data privacy, bias, and transparency become increasingly paramount.

Consumer Personalization → Usage Preferences: The path estimate for the link between Consumer Personalization and E-commerce Usage Preference is -0.035 with the standard error being 0.053, the critical ratio (C.R.) being -0.653 and the p-value is 0.514.

Therefore, it can be said that the result is not statistically significant enough to say that consumer personalization stands to impact how users wish to engage in e-commerce (frequency of shopping, trust in review, and preference in discounts). This seems to suggest that while personalization might be found to be pleasing, this will not in turn be associated with usage behavior or preferences for different online shopping platforms.

Consumer Personalization → Awareness and Understanding of AI: The pathway from Consumer Personalization to Awareness and Understanding of AI in E-commerce carries an estimate of -0.093, a C.R. of -1.936, and a p-value of 0.049, making it statistically significant at the 5% level. This means that there is a somewhat negative but statistically significant relationship between higher levels of personalization and greater scepticism or decreased awareness of how AI works or its implications in e-commerce.

This could also be interpreted as the fact that while consumers are made personalized, they may not totally comprehend or be aware of how AI works behind the scenes due to a lack of transparency.

Consumer Personalization → Perception of AI-Driven Personalization: This route has a favourable estimate of 0.297 accompanied by a steep C.R. of 4.488 and a p-value below 0.001 (*), thus marking it highly significant**. This means that consumer personalization affects their perception of AI in e-commerce, particularly with regards to trust in AI recommendations and finding suitable products, in a very strong and positive way. This supports the model's assumption that well-done personalization increases perceived usefulness and relevance of AI-enabled shopping experiences.

Challenges and Ethics → Opinion Regarding Targeted Advertisements: The path estimate from Challenges and Ethics to Opinion Regarding AI-Based Targeted Advertisements is found to be -1.131, with a corresponding C. R. of -7.97 and a p-value < 0.001.

This strongly reflects a significant negative association. Therefore, the greater the concern with ethical challenges in AI, e.g., data abuse, non-transparency, algorithmic bias, the more negative the opinion about targeted advertisements. Thus, as consumers become more conscious or cautious of ethical issues, they are more apt to consider personalized ads to be intrusive or manipulative rather than beneficial.

Path analysis with SEM reveals the intricate manner in which consumer personalization dovetails with their perceptions, awareness, opinions, and even ethical concerns in the AI-powered e-commerce ecosystem. Although personalization tends to enhance consumer perceptions of AI efficacy, it could also result in diminished awareness as well as increased ethical concerns, which negatively affect consumer attitudes toward targeted advertisements. Personalization, interestingly, does not significantly shape actual shopping preferences. Hence, this indicates a gap between the appreciation of technology and behavioral modification (Riegger, 2022).

Table 3: ANOVA: Age and Awareness of AI

Age group	N	Mean	Std. Deviation	Std. Error	ANOVA					
18 - 24 years	53	0.286	0.959	0.132	REGR factor score for Awareness and understanding of AI in E-commerce					
25 - 34 years	70	0.157	0.965	0.115		Sum of Squares	df	Mean Square	F	Sig.
35 - 44 years	64	-0.114	0.984	0.123	Between Groups	10.034	4	2.509	2.561	0.039
45 - 54 years	57	-0.152	0.97	0.129	Within Groups	288.966	295	0.98		
Above 55 years	56	-0.181	1.072	0.143	Total	299	299			
Total	300	0	1	0.058						

The Anova results suggest that awareness and perception of AI in e-commerce differ considerably between age cohorts (F = 2.561, p = 0.039), meaning perceptions about AI awareness vary depending upon age. In particular, the younger cohorts (18-24 and 25-34 years) produced higher mean awareness scores of 0.286 and 0.157, respectively, while their older counterparts, particularly those aged 45 years and above, produced lower mean scores (e.g., -0.152 for 45-54 years and -0.181 for above 55 years). This indicates a tendency for younger people to have more awareness or greater understanding of AI applications in e-commerce than older people.

Table 4: ANOVA: Occupation and Perception of AI

REGR factor score for Perceptions of AI-Driven Personalization and Occupation										
	N	Mean	Std. Deviation	Std. Error	ANOVA					
Not employed	41	-0.192	0.884	0.138						
Student	49	0.120	0.988	0.141						
Employed in Private sector	80	-0.108	1.008	0.113	REGR factor score for Perceptions of AI-Driven Personalization					
Employed in Government sector	46	0.102	0.944	0.139		Sum of Squares	df	Mean Square	F	Sig.
Self-Employed	38	0.399	0.980	0.159	Between Groups	11.530	5	2.306	2.358	0.040
Homemaker	46	-0.201	1.090	0.161	Within Groups	287.470	294	0.978		
Total	300	0.000	1.000	0.058	Total	299.000	299			

There was a significant difference between the occupational groups on the perception of AI-driven personalization (F=2.358, p=0.040). Occupation also influences the perceived effectiveness and relevance of AI personalization among people in e-commerce. Here, Self-employed subjects have a higher positive mean score (0.399), followed by students (0.120) and government employees (0.102). In contrast, homemakers (-0.201) and the unemployed (-0.192) had more negative perceptions. This shows that the self-employed, students, and government employees might be the active ones exposed to this newest feature of shopping in cyberspace.

Table 5: ANOVA - Frequency of Online Purchase and Challenges

REGR factor score for Challenges & Ethical Considerations and Frequency of Purchase										
	N	Mean	Std. Deviation	Std. Error	**ANOVA**					
Weekly or more	86	0.193	0.969	0.105	REGR factor score for Challenges & Ethical Considerations					
2 - 3 times a month	67	0.131	1.065	0.130		Sum of Squares	df	Mean Square	F	Sig.
About once a month	63	-0.104	0.934	0.118	Between Groups	9.299	3	3.100	3.167	0.025
Less than once a month	84	-0.225	0.987	0.108	Within Groups	289.701	296	0.979		
Total	300	0.000	1.000	0.058	Total	299.000	299			

There is significant difference in what people think about challenges and ethical considerations regarding AI on e-commerce according to the purchase frequency, as suggested by the ANOVA (F = 3.167, p = 0.025). Those that purchased 2-3 times a week (mean=0.193) and every week or even more often (mean=0.131) seem more sensitive about this issue compared to those who purchase at least once a month (Mean=-0.104) and below once a month (mean=-0.225). In other words, the data indicates that frequent online shoppers reflect or recognize ethical and data privacy implications of AI technologies in e-commerce because they are normally exposed to AI-driven interaction with the technology whenever they shop.

Conclusion

An examination of how consumers perceive and respond to online recommendation based on AI was conducted in this study examining the role of AI-driven personalization in shaping purchase behavior online. It's confirmed that personalization increases consumer trust and perception of relevance but does not significantly affect their shopping preferences. According to the study, greater personalization could also lead to consumers being less aware of AI mechanisms, leading to ethical concerns associated with data misuse and ads being intrusive.

Consumer attitudes toward targeted advertisements based on AI are, in turn, negatively impacted by these concerns. Through SEM and descriptive insights, the study brings together both the benefits and the challenges of AI in e-commerce, contributing to the growing body of literature. It is important for practitioners to balance personalization with transparency and ethical considerations in order to keep users engaged and trusting. The study of AI and consumer dynamics may incorporate moderating variables, such as digital literacy or platform trust, in the future.

Conflict of Interest

There is no conflict of interest between two authors

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