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Gendered Perspective of AI Assisted Consumer Behaviour

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Abstract

Artificial Intelligence (AI) is reshaping how consumers shop, interact with brands, and receive marketing messages. From personalized product suggestions to smart chatbots and virtual assistants, AI is designed to make shopping more convenient. But behind these high-tech tools lies an important question: how does AI affect consumers differently based on gender? This study explores how gender norms and stereotypes influence and is influenced by AI-driven marketing. As, AI learns from existing data, it can unintentionally replicate out dated gender biases. For example, men may be shown ads for financial services or tech products, while women might see ads for household goods or lower-paying job roles. These patterns aren't just marketing choices they reflect and reinforce societal stereotypes. The research dives into how AI-powered tools, like recommender systems and algorithmic pricing models, may treat male and female consumers differently. It also asks whether these differences impact how men and women trust or respond to AI suggestions. Do female consumers feel alienated when product recommendations don't reflect their real needs or identities? By analysing surveys, sentiment data, and experimental findings, the study uncovers both the psychological and behavioural effects of gendered AI on consumers. It also highlights the ethical and legal challenges businesses face in ensuring AI is fair and inclusive. To move forward, the study calls for gender-sensitive AI design. This means using diverse training data, transparent algorithms, and regular bias checks. Ultimately, AI can create better consumer experiences—but only if it respects and reflects the diversity of the people it serves. Future research should also consider how identity factors like age, ethnicity, and class intersect with gender in shaping AI-driven consumer behavior.

Keywords: *AI-assisted Consumer Behavior;Gender Bias in Algorithms; Personalized Marketing; Digital Commerce Ethics; Gender Stereotypes in AI; Algorithmic Discrimination.*

1. INTRODUCTION

Artificial intelligence (AI) has radically changed consumer behaviour and decision-making through personalised recommendations, automated customer support, and targeted advertising, claims Shankar (2022). Since, AI is becoming more and more ingrained in daily life, its effects vary by demography, including gender. Men may differ from women in psychological, social, and behavioural aspects when it comes to using AI-powered apps, perceiving AI-based recommendations, and having faith in AI while making purchases (Sun, 2021). These gendered differences in AI-assisted consumer behaviour must be understood by companies and policymakers who want to enhance consumer experiences and ensure fair AI development.

Consumer interactions with AI-powered solutions are influenced by gender disparities in technology adoption and trust (Gefen& Straub, 2020). While males often place a higher value on efficiency and innovation, women are typically more concerned with privacy and AI transparency (Wang & Huang, 2023). Furthermore, women frequently look for a balance between AI and human input when making purchasing decisions, whereas males may be more likely to blindly believe AI advice (Liu et al., 2022). These differences demonstrate the necessity of developing AI and marketing strategies with gender in mind.Additionally, AI-driven customisation has transformed the way people shop by providing personalised product recommendations, automated customer support, and dynamic pricing (Kaplan &Haenlein, 2021). Disparities in buying habits by gender and the application of AI technology, however, might affect how customers view and react to these characteristics.

For instance, women are more inclined to favour chatbots for customer care, while males prefer visual search tools (Smith et al., 2020). In order to customise AI apps to meet a variety of customer needs, these findings demonstrate how important it is to look at AI-assisted consumer behaviour from a gendered perspective.Furthermore, issues with AI ethics such as algorithmic bias and data privacy have a significant impact on how consumers behave and build trust. Researches show that while men are more receptive to AI tracking for personalisation, women are more worried about AI violating their privacy (Johnson & Taylor, 2023). These results imply that in order to create inclusive and moral AI systems that serve both male and female users, AI developers need to take gendered issues into consideration. AI applications run the risk of reducing customer involvement and perpetuating pre-existing gender biases if these factors are not taken into account.

With an emphasis on variations in AI trust, preferences, privacy concerns, and decision-making patterns, this study investigates the gendered viewpoint of AI-assisted consumer behaviour. The study intends to shed light on how AI might be modified to better serve customers of both genders by looking at survey data and existing literature. The results will highlight the need for gender-sensitive AI development and marketing tactics, adding to the expanding conversation on AI and consumer behaviour.

1.1 Background of the Study

Automated customer service, tailored recommendations, and targeted advertising are some of the ways artificial intelligence (AI) is changing consumer behaviour. However, rather than being neutral, AI-driven consumer interactions typically reinforce and reflect gendered and social norms .Rather than being neutral, biases may be strengthened by algorithms educated on past customer data, which could affect how goods and services are promoted to specific gender groups. Understanding how gender affects consumer behaviour as AI develops is essential to making sure that online marketplaces foster diversity rather than perpetuate stereotypes.

Significant moral and financial issues are brought up by the relationship between gender and AI-assisted consumer behaviour. AI-driven recommendation systems that incorporate gender biases may influence consumer preferences in ways that restrict options, uphold conventional

roles, and result in unequal market experiences. For instance, AI-generated product recommendations may disproportionately drive men towards technology and financial services and women towards home goods and cosmetics. Such trends have wider ramifications for market segmentation, advertising tactics, and female representation in the digital economy in addition to having an impact on consumer autonomy. To allay these worries, AI design and deployment must be gender-sensitive in order to maintain diverse, impartial, and egalitarian consumer experiences.

1.2 Significance of the Study

Understanding how artificial intelligence affects customer interactions and purchase decisions differently depending on gender requires a gendered perspective on AI-assisted consumer behaviour. Concerns regarding the equity and inclusion of AI-driven technologies are growing as they become more and more integrated into digital commerce. Many Artificial Intelligence (AI) algorithms are trained on past consumer data that can have gender biases, which can result in biased suggestions, different marketing approaches, and the perpetuation of established gender norms. This study will add to the expanding discussion on the ethical application of AI by examining these biases and making sure that online marketplaces support diversity and do not discriminate against any gender group.

Furthermore, this study is important because it will help businesses, legislators, and AI developers to create more equal consumer experiences. Gender-based differences in AI-assisted interactions can support inclusive product designs, increase algorithmic transparency, and advance equity in digital advertising. By educating customers on how AI affects their purchase decisions, this research will also empower them and eventually promote a more moral and objective digital economy. By tackling these issues, the research helps develop AI-powered consumer platforms that value gender diversity and promote equitable decision-making for all users.

2. REVIEW LITERATURE

Artificial intelligence (AI) and consumer behaviour has been the subject of numerous researches, with a growing emphasis on the role that gender plays in AI-assisted decision-making. Men and women may engage with AI-powered products differently, which could influence their purchasing decisions and level of trust in AI systems (Gefen& Straub, 2020). While men are generally more receptive to adopting new technologies and relying on AI-generated recommendations, women are more cautious and prefer a combination of human and AI input when making decisions as customers (Liu et al., 2022).This gendered difference emphasises the necessity of investigating how AI applications might be modified to more closely suit a range of customer preferences.

Trust in AI recommendations is a huge difference. According to studies, men are more likely to "always" believe AI-assisted advice, whereas women prefer to utilise AI suggestions as extra counsel rather than a primary decision-making tool. According to Johnson and Taylor (2023), women are also more dubious about AI-generated content because they are more concerned about the precision and openness of AI algorithms. These results align with a

broader collection of studies on gender differences in technology trust, which demonstrates that women are more dubious of automated systems because of perceived biases and ethical issues.

Gendered AI-assisted consumer behaviour is also significantly influenced by privacy and security concerns. Concerns regarding AI tracking, data harvesting, and tailored suggestions based on browsing history are especially common among women (Shankar, 2022). Conversely, men are more likely to accept AI-driven personalisation and place a higher value on efficiency and convenience than privacy concerns (Kaplan &Haenlein, 2021). These varying viewpoints could affect how companies create AI-powered marketing plans, necessitating a well-rounded strategy that balances privacy concerns with personalisation.

Preferences for AI features in shopping experiences are influenced by gender. Personalised recommendations, dynamic pricing tools, and chatbots driven by AI are more popular among women, whereas voice-assisted shopping and visual search are more popular among males (Smith et al., 2020). These inclinations can be connected to more general trends in consumer psychology, where males choose products that increase convenience and efficiency, while women seek individualised and interactive interaction (Liu et al., 2022). In order to maximise user experience, AI developers and marketers should implement gender-responsive methods, as indicated by the statistical importance of these differences.

Lastly, gender differences exist in assumptions regarding AI's future influence on consumer behaviour. Research indicates that women are more hopeful about AI's expanding impact on shopping and are more likely to believe that, within the next five years, AI would greatly improve decision-making (Johnson & Taylor, 2023). In contrast, men are somewhat less certain or indifferent about AI's long-term effects on consumer behaviour (Wang & Huang, 2023). This implies that gendered views will continue to influence AI adoption and dependence, necessitating ongoing research to guarantee AI systems stay inclusive and flexible enough to meet a range of customer demands.

2.1 Research Gap

Although current research examines algorithmic bias and AI-assisted consumer behaviour, little is known about how these technologies explicitly influence and perpetuate gendered experiences in online marketplaces. Few researches look at the subtle ways that AI-driven suggestions, personalised marketing, and virtual assistants affect consumer behaviour differently depending on gender. The majority of studies concentrate on general ethical issues such data protection and bias in AI decision-making.Furthermore, there is a lack of empirical evidence to support the consequences of gendered AI interactions on consumer autonomy, purchasing decisions, and perceptions of brand trust. So, this study intends to bridge this gap and provide a more inclusive and equitable approach to AI development in the marketplace by providing a more comprehensive analysis of the relationship between gender dynamics and AI-driven customer engagement.

2.2 Research Questions

The present study answers the following research questions:

- How do male and female consumers perceive and interact differently with AI-powered shopping assistants in digital marketplaces?
- What role does gender play in shaping trust, personalization preferences, and purchase decisions when consumers engage with AI-driven recommendations?
- To what extent do AI algorithms reinforce or challenge existing gender norms and stereotypes in consumer targeting and content delivery?

2.3 Statement of Problem

The growing integration of Artificial Intelligence (AI) in consumer markets has transformed how individuals make purchasing decisions, interact with brands, and engage with personalized content. However, much of the existing research overlooks how these AI systems may produce or reflect gender-specific patterns in consumer behavior. As AI-driven recommendation engines, virtual shopping assistants, and targeted advertisements become more sophisticated, it is vital to examine whether they cater equitably to users of different genders or perpetuate existing biases. This research aims to explore the nuanced ways male and female consumers perceive, interact with, and are influenced by AI-powered tools in digital commerce. So, the present study has been confined to assess different aspects of AI assisted consumer behavior across male and female consumers in Himachal Pradesh. Hence, the title of present research work is "**Gendered Perspective of AI Assisted Consumer Behaviour"**

3. METHODOLOGY

This study investigates gendered perspectives in AI-assisted consumer behavior using data from 540 randomly selected adult respondents with diverse gender identities, age groups, and socio-economic backgrounds. Participants, all of whom had experience with AI-driven tools such as recommendation systems and virtual shopping assistants, were surveyed through a structured online questionnaire. The survey included both closed-ended and Likert-scale questions to capture behavioral patterns and perceptions. Data were analyzed using statistical software, employing descriptive statistics and chi-square tests to identify significant gender-based differences and the influence of AI on purchasing decisions.

4. RESULTS

The following section presents the results of the study aimed at exploring gendered perspectives in AI-assisted consumer behavior. The analysis focuses on how individuals of different gender identities interact with and respond to AI technologies during the purchasing process. Key findings are organized around demographic characteristics, usage patterns of AI tools, and significant behavioral differences identified through statistical testing. The results highlight both commonalities and distinctions in consumer behavior across gender groups, providing insight into the nuanced ways AI influences decision-making in the marketplace.

4.1 Familiarity of AI Tools among Consumers: Table 1 presents data on consumers' familiarity with AI tools, segmented by gender. A total of 540 respondents participated in the survey, with 215 males and 325 females. The largest proportion of both genders reported being "Somewhat Familiar" or "Very Familiar" with AI tools.

Table-1: Familiarity of AI Tools among Consumers

		Familiarity With AI					
		Not Familiar at All	**Somewhat Unfamiliar**	**Neutral**	**Somewhat Familiar**	**Very Familiar**	**Total**
Gender	Male	10	15	55	70	65	215
		(50.0)	(42.9)	(42.3)	(38.9)	(37.1)	(39.8)
	Female	10	20	75	110	110	325
		(50.0)	(57.1)	(57.7)	(61.1)	(62.9)	(60.2)
Total		20	35	130	180	175	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** 1.924; **P Value:** 0.750.

The table shows the familiarity of AI tools among male and female respondents, with males accounting for 39.8 per cent and females 60.2 percent of the total sample. A higher percentage of females report being "Somewhat Familiar" (61.1 percent) or "Very Familiar" (62.9 percent) with AI tools compared to males (38.9 percent and 37.1 percent, respectively), while a larger proportion of males are "Somewhat Unfamiliar" (42.9 percent) or "Not Familiar at All" (50.0 percent) compared to females (57.1 percent and 50.0 percent, respectively). Despite these differences, the Chi-Square test results, with a p-value of 0.750, indicate that there is no statistically significant difference between the genders in terms of familiarity with AI tools, suggesting that the variations observed are likely due to chance rather than gender-based differences.

4.2 Awareness of AI Applications among Consumers: Table 2 illustrates consumer awareness of various AI applications, categorized by gender. Among the 540 respondents, notable differences appear in awareness across specific AI technologies. Females reported higher awareness in most categories, especially in chatbots and AI-driven advertising. Males, however, showed full awareness of facial recognition and a higher percentage for autonomous vehicles.

Table-2: Awareness of AI Applications among Consumers

		Awareness of AI Applications							
		Chatbots	**Personalized recommendations**	**Voice assistants**	**AI-driven advertising**	**Facial recognition**	**Autonomous vehicles**	**Other**	**Total**
Gender	Male	10	35	40	20	30	35	215	215
		(22.2)	(29.2)	(53.3)	(26.7)	(100.0)	(58.3)	(39.8)	(39.8)
	Female	35	85	35	55	0	25	325	325
		(77.8)	(70.8)	(46.7)	(73.3)	(0.0)	(41.7)	(60.2)	(60.2)
Total		45	120	135	75	75	30	60	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.)	(100.)

Source: Online Survey; **Chi Square:** 78.923; **P Value:** 0.000.

The survey data shows how aware men and women are of different AI applications. More women than men recognize AI in chatbots, personalized recommendations, AI-driven ads, and other AI uses. Men, however, are more aware of voice assistants, facial recognition, and autonomous vehicles. Notably, no women reported awareness of AI in facial recognition. Overall, 540 people participated, with women making up a larger share (60.2 percent) than men (39.8 percent). The Chi-Square test result (78.923) and p-value (0.000) indicate a significant difference in AI awareness between genders.

4.3 Trust on AI Suggestion for Shopping: Table 3 explores the level of trust consumers place in AI-generated suggestions for shopping, categorized by gender. Respondents indicated varying degrees of trust, ranging from "Never" to "Always." The distribution shows differing patterns of trust between male and female participants. Some gender-based variations appear in both lower and higher trust levels. The data reflects diverse consumer attitudes toward relying on AI for shopping decisions.

Table-3: Trust on AI Suggestion for Shopping

		Trust on AI Suggestions for Shopping					
		Never	**Rarely**	**Sometimes**	**Often**	**Always**	**Total**
Gender	Male	15	20	85	50	80	325
		(60.0)	(33.3)	(37.8)	(47.6)	(64.0)	(60.2)
	Female	10	40	140	55	125	540
		(40.0)	(66.7)	(62.2)	(52.4)	(100.0)	(100.0)

Total	25	60	225	105	45	215
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:**9.120 ;**P Value:** .058

The survey shows that trust in AI shopping recommendations differs between men and women. Men are more likely to "Always" trust AI (64 percent), but interestingly, all respondents who chose "Always" were women (100 percent). On the other hand, women tend to be more cautious, making up the majority of those who selected "Rarely" (66.7 percent) and "Sometimes" (62.2 percent). The most common response overall was "Sometimes" (42.6 percent), while very few people said they "Never" trust AI (4.7 percent). The statistical test results (Chi-square value = 9.120, P-value = 0.058) indicate that while there is some difference in trust levels between genders, it is not strong enough to be considered statistically significant. However, the result is close to the threshold, suggesting there might be a meaningful trend.

4.4 Influence of AI in Buying Decisions: Table 4 highlights consumers' perceptions of AI's influence on their buying decisions, categorized by gender. Responses range across a scale from strong disagreement to strong agreement. The distribution reflects both supportive and skeptical attitudes toward AI's role in purchase behavior. Notable differences emerge between male and female respondents across agreement levels. The data provides insight into how AI impacts consumer decision-making across gender groups.

Table-4: Influence of AI in Buying Decisions

		Influence of AI In Buying Decisions					
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Total**
Gender	Male	5	15	85	20	215	215
		(20.0)	(33.3)	(50.0)	(33.3)	(39.8)	(39.8)
	Female	20	30	85	40	325	325
		(80.0)	(66.7)	(50.0)	(66.7)	(60.2)	(60.2)
Total		25	45	170	240	60	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square**: 13.833; **P Value:** .008

The survey examines how AI influences buying decisions and shows differences between men and women. Among those who "Strongly Disagree" or "Disagree" that AI affects their choices, most are women (80 per cent and 66.7 per cent, respectively), suggesting that women are more skeptical. In the "Neutral" group, men and women are evenly split (50 per

cent each). However, more women "Agree" (66.7 per cent) and "Strongly Agree" (60.2 per cent) than men, indicating that women may feel AI has a stronger influence on their shopping decisions. The Chi-square test result (13.833) and P-value (0.008) show that these differences are statistically significant, meaning gender likely plays a role in how much people believe AI impacts their buying choices.

4.5 Useful AI Features for Shopping: Table 5 outlines consumer preferences for various AI features used in shopping, segmented by gender. Features include personalized recommendations, dynamic pricing, chatbots, voice assistance, and visual search. The responses highlight differing priorities and interests in AI tools between male and female consumers. Some features show strong appeal across both genders, while others are more gender-skewed. The table provides insight into which AI functionalities are seen as most useful in enhancing the shopping experience.

Table-5: Useful AI Features for Shopping

		Useful AI Features For Shopping						
		Personalized Product Recommendations	**Dynamic Pricing**	**Chatbots for Customer Support**	**Voice-assisted Shopping**	**Visual Search**	**Other**	**Total**
Gender	Male	30	50	0	10	115	10	215
		(40.0)	(47.6)	(0.0)	(28.6)	(39.7)	(66.7)	39.8%
	Female	45	55	20	25	175	5	325
		(60.0)	(52.4)	(100.0)	(71.4)	(60.3)	(33.3)	(60.2)
Total		75	105	20	35	290	15	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square**: 22.264; **P Value:** .000

The survey explores which AI features people find useful for shopping and highlights differences between men and women. Women are more likely to prefer personalized product recommendations (60 percent), dynamic pricing (52.4 percent), and chatbots for customer support (71.4 percent), while men show less interest in these features. However, men are more likely to use visual search (66.7 percent), where shoppers find products using images. Voice-assisted shopping is popular among both genders, with 60.3 percent of users being women and 39.7 percent men. The Chi-square test (22.264) and P-value (0.000) indicate that these differences are statistically significant, meaning gender plays a key role in AI shopping preferences.

4.6 Bought Product via AI: Table 6 presents consumer responses regarding whether they have purchased a product through AI. Responses are categorized into "Yes," "No," and "Not sure," and are segmented by gender. The data reveals varied levels of engagement with AI-powered purchasing tools among respondents. Some gender-based differences are evident in levels of AI-based purchase experiences. The table sheds light on consumer adoption of AI in actual shopping behavior.

Table-6:Bought Product via AI

		Bought Product Via AI			
		No	**Not sure**	**Yes**	**Total**
Gender	Male	60	25	130	215
		(32.4)	(35.7)	(45.6)	(39.8)
	Female	125	45	155	325
		(67.6)	(64.3)	(54.4)	(60.2)
Total		185	70	285	540
		(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square**: 8.699; **P Value:** 0.13

The survey shows that more women than men have **not** bought a product using AI (67.6 percent vs. 32.4 percent). However, among those who have made a purchase through AI, the numbers are closer, with 54.4 percent being women and 45.6 percent being men. The "Not sure" group also has more women (64.3 percent). The Chi-square test (8.699) and P-value (0.13) show that the difference is not statistically significant, meaning gender does not strongly influence whether someone buys through AI.

4.7 Trust AI or Human Recommendations: Table 7 explores consumer trust in AI versus human recommendations, with responses categorized by gender. Participants expressed preferences ranging from distrusting both to favouring either AI, humans, or both equally. The data reflects a broad spectrum of trust attitudes toward recommendation sources. Both male and female respondents show notable representation across all categories. The table offers insight into consumer confidence in AI compared to traditional human advice.

Table-7: Trust AI or Human Recommendations

	Trust AI or Human Recommendations				
	Don`t Trust Either	**Trust Human Recommendations More**	**Trust Both Equally**	**Trust AI More**	**Total**

Gender	Male	10	55	55	55	215
		(33.3)	(42.3)	(44.0)	(44.0)	(39.8)
	Female	20	75	70	70	325
		(66.7)	(57.7)	(56.0)	(56.0)	(60.2)
Total		30	130	255	125	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** 2.474; **P Value:** 0.480

The survey shows that more women than men prefer human recommendations (57.7 percent) and also tend to trust both AI and human recommendations equally (56 percent). Similarly, more women than men trust AI more (56 percent). However, when it comes to not trusting either, women also make up the majority (66.7 percent). The Chi-square test (2.474) and P-value (0.480) show that the differences are not statistically significant, meaning gender does not have a strong impact on trust in AI or human recommendations.

4.8 AI Invades Privacy: Table 8 examines consumer perceptions of whether AI invades personal privacy, segmented by gender. Responses range from strong disagreement to strong agreement, reflecting varied privacy concerns. Both male and female participants express differing levels of concern about AI's impact on privacy. Neutral and agreement responses are prominent among both groups. The table highlights the complexity of consumer attitudes toward privacy in the age of AI.

Table-8: AI Invades Privacy

		AI Invades Privacy					
		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Total**
Gender	Male	5	25	75	70	40	215
		(50.0)	(26.3)	(42.9)	(37.8)	(53.3)	(39.8)
	Female	5	70	100	115	35	325
		(50.0)	(73.7)	(57.1)	(62.2)	(46.7)	(60.2)
Total		10	95	175	185	75	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** 14.355; **P Value:** 0.006

The survey shows that more women than men believe AI invades privacy with 62.2 percent agreeing and 46.7 percent strongly agreeing. On the other hand, men are more likely to strongly agree (53.3 percent) or be neutral (42.9 percent) about the issue. Women also make up the majority of those who disagree (73.7 percent) that AI invades privacy. The Chi-square test (14.355) and P-value (0.006) indicate that these differences are statistically significant, meaning gender plays a role in opinions on AI and privacy concerns.

4.9 Transparent are Companies about AI Use: Table 9 presents consumer opinions on how transparent companies are about their use of AI, categorized by gender. Responses range from viewing companies as "Very Opaque" to "Very Transparent." Perceptions vary across the spectrum, with both skepticism and confidence reflected among respondents. Gender-based differences are visible in levels of perceived transparency. The table provides insight into public awareness and trust in corporate AI disclosure practices.

Table-9: Transparent are Companies about AI Use

		Transparent Are Companies About AI Use					
		Very Opaque	**Somewhat Opaque**	**Neutral**	**Somewhat Transparent**	**Very Transparent**	**Total**
Gender	Male	15	20	45	90	45	215
		(60.0)	(36.4)	(37.5)	(40.9)	(37.5)	(39.8)
	Female	10	35	75	130	75	325
		(40.0)	(63.6)	(62.5)	(59.1)	(62.5)	(60.2)
Total		25	55	120	220	120	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** 5.17; **P Value:** 0.270

The survey shows that more women than men believe companies are somewhat or very transparent about AI use (59.1 percent and 62.5 percent, respectively). Women also make up the majority of those who think companies are neutral (62.5 percent) or somewhat opaque (63.6 percent) about AI transparency. However, more men believe companies are very opaque (60 percent). The Chi-square test (5.171) and P-value (0.270) show that the differences are not statistically significant, meaning gender does not strongly influence opinions on AI transparency in companies.

4.10 AI Transparency Affect Purchase Decisions: Table 10 explores whether consumers believe AI transparency influences their purchase decisions, segmented by gender. Respondents selected from “Yes,” “No,” or “Not sure” based on their views. The data shows a range of perspectives on the role of transparency in consumer behavior.

Both male and female participants are represented across all response categories. The table offers insight into how disclosure of AI use may impact buying choices.

Table-10: AI Transparency Affect Purchase Decisions

		AI Transparency Affect Purchase Decisions			Total
		No	Not sure	Yes	
Gender	Male	40	35	140	215
		(38.1)	(41.2)	(40.0)	(39.8)
	Female	65	50	210	325
		(61.9)	(58.8)	(60.0)	(60.2)
Total		105	85	350	540
		(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** .200; **P Value:** .905

The survey shows that more women than men believe AI transparency affects their purchase decisions (60 percent vs. 40 percent). Women also make up the majority of those who are unsure (58.8 percent) or say it does not affect their decisions (61.9 percent). However, the Chi-square test (0.200) and P-value (0.905) show that the differences are not statistically significant, meaning gender does not strongly influence whether AI transparency impacts buying choices.

4.11 Strictly AI Marketing Rules Table 11 presents consumer opinions on whether there should be strict rules governing AI in marketing, broken down by gender. Responses range from strong disagreement to strong agreement, indicating varied regulatory preferences. Support for stricter regulation is evident across both male and female respondents. Some gender-based variation appears in the intensity of agreement or neutrality. The table provides insight into public sentiment regarding the need for AI marketing oversight.

Table-11: Strictly AI Marketing Rules

		Strictly AI Marketing Rules					
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Gender	Male	0	25	35	90	65	215
		(0.0)	(50.0)	(30.4)	(34.6)	(61.9)	(39.8)

	Female	10	25	80	170	40	325
		(100.0)	(50.0)	(69.6)	(65.4)	(38.1)	(60.2)
Total		10	50	115	260	105	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** 37.318; **P Value:** .000

The survey measured opinions on "Strictly AI Marketing Rules" across genders. Among men, most (61.9 percent) agreed or strongly agreed, while among women, a majority (65.4 percent) also leaned towards agreement. However, women were more likely to be neutral (69.6 percent) than men (30.4 percent). The statistical test (Chi-Square: 37.318, P-Value: 0.000) shows a significant difference in responses between genders, meaning gender plays a role in how people feel about AI marketing rules.

4.12 Worried About Biases in AI Recommendations: Table 12 explores consumer concerns about potential biases in AI-generated recommendations, categorized by gender. Responses range from being unconcerned to very concerned, reflecting varying levels of awareness and worry. Both male and female participants express a spectrum of concern, with notable representation in higher concern levels. Neutral and somewhat concerned responses are common across both groups. The table highlights consumer sensitivity to fairness and bias in AI-driven systems.

Table-12: Worried About Biases in AI Recommendations

		Worried About Biases In AI Recommendations					
		Not Concerned at All	**Not Very Concerned**	**Neutral**	**Somewhat Concerned**	**Very Concerned**	**Total**
Gender	Male	5	20	55	65	70	215
		(25.0)	(44.4)	(39.3)	(38.2)	(42.4)	(39.8)
	Female	15	25	85	105	95	325
		(75.0)	(55.6)	(60.7)	(61.8)	(57.6)	(60.2)
Total		20	45	140	170	165	165
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** 2.897; **P Value:** .575

The survey examined concerns about biases in AI recommendations across genders. Overall, most participants were at least somewhat concerned, with 31.5 percent being "somewhat

concerned" and 30.6 percent being "very concerned." Women tended to express slightly more concern than men, but the differences were not statistically significant (Chi-Square: 2.897, P-Value: 0.575), meaning gender does not strongly influence opinions on this issue.

4.13 Feel about AI Tracking for Personalization: Table 13 presents consumer feelings about AI tracking for personalization purposes, segmented by gender. Responses range from discomfort to comfort, capturing a wide range of emotional reactions. Participants express varying levels of acceptance, with differences observed between genders. Neutral and somewhat comfortable responses appear across both male and female groups. The table offers insight into consumer comfort levels with AI-based data tracking in shopping experiences.

Table-13: **Feel about AI Tracking for Personalization**

		Feel About AI Tracking for Personalization					
		Uncomfortable	**Somewhat Uncomfortable**	**Neutral**	**Somewhat Comfortable**	**Comfortable**	**Total**
Gender	Male	20	20	40	75	60	215
		(50.0)	(66.7)	(34.8)	(45.5)	(31.6)	(39.8)
	Female	20	10	75	90	130	325
		(50.0)	(33.3)	(65.2)	(54.5)	(68.4)	(60.2)
Total		40	30	115	165	190	540
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** 19.542 ; **P Value:** .001

The survey explored how people feel about AI tracking for personalization. Women were generally more comfortable with AI tracking (68.4 percent comfortable vs. 31.6 percent for men), while men were more likely to feel somewhat uncomfortable (66.7 percent vs. 33.3 percent for women). The statistical test (Chi-Square: 19.542, P-Value: 0.001) indicates a significant difference between genders, suggesting that women are more accepting of AI tracking for personalization than men.

4.14 AI Impact Consumer Behaviour in Next 5 Years: Table 14 explores consumer expectations regarding the impact of AI on their behavior over the next five years, categorized by gender. Responses range from uncertainty and reduced reliance to significant increases in AI usage. The data reflects a broad spectrum of outlooks, from cautious to highly optimistic. Notable gender-based differences appear in expectations about future AI integration. The table provides insight into how consumers anticipate AI shaping their decision-making and habits.

Table-14: AI Impact Consumer Behaviour in Next 5 Years

		AI Impact Consumer Behaviour in Next 5 Years					
		Not Sure	**Decrease Reliance on AI**	**No Significant Change**	**Somewhat Increase Reliance on AI**	**Significantly Increase Reliance on AI**	**Total**
Gender	Male	15	20	20	50	110	215
		(37.5)	(66.7)	(33.3)	(45.5)	(36.7)	(39.8)
	Female	25	10	40	60	190	325
		(62.5)	(33.3)	(66.7)	(54.5)	(63.3)	(60.2)
Total		40	30	60	110	300	300
		(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; **Chi Square:** 12.869; **P Value:** .012

The survey examined how people expect AI to impact consumer behaviour over the next five years. The majority (55.6 percent) believe reliance on AI will significantly increase, with women (63.3 percent) more likely to think so than men (36.7 percent). Men were slightly more likely to predict no significant change or a decrease in AI reliance. The statistical test (Chi-Square: 12.869, P-Value: 0.012) shows a significant difference between genders, indicating that women are generally more optimistic or expect greater AI integration in consumer behaviour than men.

4.15 Use AI tools for Personal Decisions Making: Table 15 presents data on consumers' use of AI tools for making personal decisions, segmented by gender. Responses include those who do use AI, those who do not, and those who are unsure. The results show varying levels of AI adoption in personal decision-making contexts. Gender-based differences emerge in both usage and uncertainty about AI's role. The table offers insight into how individuals are incorporating AI into everyday personal choices.

Table-15: Use AI tools for Personal Decisions Making

		Use AI Tools For Personal Decisions Making			
		No	**Not sure**	**Yes**	**Total**
Gender	Male	40	10	165	215
		(44.4)	(16.7)	(42.3)	(39.8)

	Female	50	50	225	325
		(55.6)	(83.3)	(57.7)	(60.2)
Total		90	60	390	540
		(100.0)	(100.0)	(100.0)	(100.0)

Source: Online Survey; 15.233 **Chi Square:**; **P Value:** .000

The survey examined the use of AI tools for personal decision-making. Most respondents (72.2 percent) said they use AI, with women (57.7 percent) being more likely than men (42.3 percent) to do so. Women were also much more likely to be unsure (83.3 percent of the "Not sure" responses). The statistical test (Chi-Square: 15.233, P-Value: 0.000) indicates a significant difference between genders, suggesting that women are generally more open to or uncertain about using AI for personal decisions compared to men.

5. DISCUSSION

The survey shows that while men and women have different levels of awareness and familiarity with AI applications, only awareness shows a significant gender difference (*Sharma et al., 2025*). Women are more aware of AI in chatbots, recommendations, ads, and other uses, while men are more aware of voice assistants, facial recognition, and autonomous vehicles, aligning with prior findings on gendered exposure to technology types (e.g., *Smith & Anderson, 2019*). However, when it comes to overall familiarity with AI tools, there is no significant difference between genders, as indicated by the p-value (0.750). This suggests that while awareness differs, familiarity with AI tools is similar across genders, with variations likely due to chance (*Sharma et al., 2025*).

The survey reveals gender differences in trust, influence, preferences, and usage of AI in shopping. Men are more likely to "Always" trust AI recommendations, while women dominate the "Sometimes" and "Rarely" categories, though this difference is not statistically significant (*Sharma et al., 2025*). Women are also more likely to feel AI influences their buying decisions, a finding that is statistically significant and consistent with previous work suggesting women may be more responsive to personalized digital experiences (*Jung et al., 2021*). In terms of AI shopping features, women prefer personalized recommendations, dynamic pricing, and chatbots, while men favor visual search, with voice-assisted shopping being popular across both genders. These differences are statistically significant and supported by earlier studies indicating gendered preferences in digital shopping interfaces (*Lee & Coughlin, 2015*). When it comes to purchasing through AI, more women than men have not done so, but among those who have, the gap is smaller. However, this difference is not statistically significant, indicating that gender does not strongly determine AI-based purchasing behavior (*Sharma et al., 2025*).

The survey reveals gender differences in trust, privacy concerns, and transparency perceptions related to AI, though not all are statistically significant. Women are more likely than men to prefer human recommendations, trust AI and human recommendations equally,

or distrust both, but these differences are not significant (*Sharma et al., 2025*). Women are also more concerned about AI invading privacy, a finding that is statistically significant and in line with broader research on gender and privacy sensitivity in digital contexts (*Lutz & Tamò-Larrieux, 2021*). When it comes to AI transparency in companies, women are more likely to see companies as somewhat or very transparent, while men are more likely to view them as very opaque, but this difference is not significant. Similarly, while more women believe AI transparency affects their purchase decisions, the difference is not statistically significant, indicating that gender does not strongly impact trust in AI transparency when shopping (*Sharma et al., 2025*).

The survey highlights gender differences in opinions on AI marketing rules, biases in AI recommendations, and AI tracking for personalization. Both men and women mostly agree with stricter AI marketing rules, but women are more likely to be neutral, and this difference is statistically significant. While most participants are concerned about biases in AI recommendations, the slight gender difference is not significant. However, women are generally more comfortable with AI tracking for personalization, while men are more likely to feel uncomfortable, a statistically significant finding. This suggests that gender influences opinions on AI marketing rules and tracking but not on concerns about AI bias (*Sharma et al., 2025*; *Binns et al., 2018*).

The survey shows that gender influences expectations about AI's future impact and its use in personal decision-making. Most people believe AI reliance will increase in the next five years, with women being more likely to expect significant growth. This difference is statistically significant and aligns with global consumer sentiment on AI adoption (*PwC, 2020*). Similarly, most respondents use AI for personal decisions, with women being more likely to do so or be uncertain about it. The significant statistical results suggest that women are generally more open to AI adoption and its future role in consumer behavior compared to men (*Sharma et al., 2025*).

In summary, the survey highlights significant gender differences in AI awareness, shopping preferences, trust, privacy concerns, and expectations for AI's future impact. Women are generally more aware of AI in chatbots, personalized recommendations, and AI-driven ads, while men are more familiar with voice assistants, facial recognition, and autonomous vehicles. When it comes to shopping, women tend to trust AI recommendations less but feel AI has a stronger influence on their buying decisions. They also prefer features like personalized recommendations, dynamic pricing, and chatbots, while men favor visual search. Additionally, women express more concern about AI invading privacy but are also more accepting of AI tracking for personalization. Despite these differences, familiarity with AI tools and certain aspects of AI transparency do not significantly vary by gender. Women are also more optimistic about AI's increasing role in consumer behavior and are more likely to use AI for personal decision-making (*Sharma et al., 2025*).

6. RECOMMENDATIONS

The study suggests that companies using AI in shopping experiences should be more mindful of gender differences. Since women tend to prefer features like personalized recommendations and chatbots, while men lean towards tools like visual search, it makes sense to design AI tools that reflect these preferences. Privacy is a big concern, especially for women, so being open about how data is used and giving users more control can help build trust. Clear communication about how AI influences buying decisions can also make shoppers feel more confident. Lastly, it's important for businesses and policymakers to work together to create fair and inclusive AI systems that work well for everyone, no matter their gender.

7. AUTHOR'S CONTRIBUTION

Dr. Munish Sharma conceptualized the study, designed the research framework, supervised the overall project, and led the writing and revision of the manuscript. Nikita Verma contributed to the literature review, data collection, and preliminary analysis. Nikita Sharma assisted in data collection, tabulation, and formatting of the findings. Monika supported the data analysis process and contributed to the presentation and interpretation of results. All authors reviewed and approved the final manuscript.

8. CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this paper.

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