

Mansi Gupta

MRP_AI Personalized Marketing1

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Major Research Project on Role of Artificial Intelligence in Personalized Marketing

Submitted By:

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24/DMBA/143

Under the Guidance of

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DELHI SCHOOL OF MANAGEMENT

Delhi Technological University

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CERTIFICATE

1 This is to certify that Ms Muskan Seth, Roll No. 24/DMBA/143 has successfully completed the project titled "Role of Artificial Intelligence in Personalized Marketing" under the supervision of Mr. Yashdeep in partial fulfillment of the requirements of the Master of Business Administration (MBA) course at Delhi School of Management, DTU, New Delhi for the year 2024-25.

1
Dr. Saurabh
Associate Professor
Head of Department
(DSM, DTU)

Mr. Yashdeep
Assistant Professor (DSM, DTU)

DECLARATION

1 I, hereby, swear and affirm that the project dissertation report titled "Role of Artificial Intelligence in Personalized Marketing" submitted by me to Delhi School of Management, DTU is entirely the product of my original effort under the guidance of my mentor Mr. Yashdeep, Assistant Professor, Delhi School of Management, DTU, and submitted in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration (MBA).

I, further, declare that no part of the above project report has been included in the fulfilment of any obligation for any other degree.

Muskan Seth
24/DMBA/143

ACKNOWLEDGEMENT

1 I would be remiss if I did not recognize the help and ongoing support that I received during my
1 research activities. I would like to thank my faculty advisor Mr Yashdeep, who guided and
mentored me throughout my research work on the topic "Role of Artificial Intelligence in
Personalized Marketing" and helped me finish the project appropriately. This project has been
1 a great experience for me to learn the exciting new world around tech and marketing. I would
also like to express my heartfelt gratitude to the faculties of Delhi School of Management,
Delhi Technological University for providing me the opportunity and helping me with their
expertise in this project. It's been a great experience having the opportunity to engage with
1 them throughout this research and it will no doubt help me be a better professional. It has been
my constant endeavour to ensure that the project is completed in the best possible manner and
ensure that it is error-free.

Muskan Seth
24/DMBA/143

EXECUTIVE SUMMARY

17 In today's digital landscape, Artificial Intelligence (AI) is revolutionizing the field of marketing with its unparalleled ability to deliver hyper-personalized experiences at scale. Personalized

9 marketing is a marketing strategy that includes the creation of customized content, product suggestions, and messages for customers, based on their individual data profiles, behavioral patterns and preferences. The present research delves into the influence of AI innovations on

18 customer experience in business, including machine learning, natural language processing, predictive analytics, and recommendation systems. It covers the key AI tools that enable personalized marketing, explores consumer perspectives on personalization in marketing, and

8 examines ethical issues surrounding privacy and transparency in AI. The data were collected through a structured questionnaire which was administered to the respondents across a wide age group and digital usage which were complemented with a comprehensive literature review and industry literature reports. A comprehensive literature review and industry reports were used to complement primary data gathered using a structured questionnaire administered to respondents across a wide age group and digital usage. The results show that most consumers

21 love customization, but have strong reservations about the collection and use of their data. The study concludes that AI-powered personalisation has “vast commercial potential” but businesses seeking to earn consumer trust for the long-term must responsibly, transparently and with consumer consent use data. Guidance is given to marketers and policy makers on how to ethically and effectively leverage artificial intelligence.

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INTRODUCTION

1 Marketing has long been about getting to the right people, at the right time and place. For decades, this was a dream that could only be achieved on mass communication broadcast television, newspaper ads and direct mail, which was inherently imprecise and could reach a large audience in the hope of reaching a few. The digital revolution began to change this, providing data trails which enabled more targeted campaigns. However, it is the advancement of technology that has truly unlocked the potential of personalized marketing, transforming it from a theoretical idea into a scalable, real-time strategy. In fact, many technologies are involved in delivering marketing personalization, including machine learning (ML), deep learning, natural language processing (NLP), computer vision, and predictive analytics. Machine learning algorithms can identify patterns in large consumer datasets, predicting preferences and future behaviour accurately. NLP can be used to ensure that the conversation goes where it is appropriate with the customer. Recommendation systems such as collaborative and content-based filtering show products and content that the user is likely to like. Together, these technologies are transforming the customer journey, from the beginning to after the sale. The personalized marketing market has been growing at a rapid pace globally. According to industry reports, the AI used in the marketing field is expected to grow to approximately USD 107.5 billion by 2028, enjoying an annual growth rate of more than 28%. Big players such as Amazon, Netflix, Google, and Spotify have shown how profoundly AI-powered customisation can impact the user experience. Amazon, Netflix, Google, and Spotify have been leading the way with the power of AI-driven personalisation. Amazon, for example, makes a lot from its recommendation system and Netflix benefits from personalization to curb customer attrition and boost engagement. AI is a rapidly evolving trend in marketing, and it holds immense potential in the Indian market. India is a nation of more than 750 million internet users with its e-commerce sector growing at a brisk pace, India presents strong prospects for personalized digital marketing. AI is being used by companies like HDFC Bank, Bajaj Finserv, Flipkart, Myntra, Zomato, and Swiggy to enhance the customer experience, boost retention, and expand their businesses. While these benefits are present, there are some challenges that have emerged in the application of AI to personalization, such as ethical concerns regarding consumer data, algorithmic bias, and privacy and security concerns. Since then, some of the laws that have come into effect have been the GDPR and Digital Personal Data Protection Act, 2023 in India, which have placed a strong emphasis on transparency and responsibility in the handling of data. Meanwhile, consumers are more conscious of the information that is being gathered from them

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and how it's being used. The purpose of this research is to understand the role of AI in personalized marketing from various perspectives, such as technical, business, consumer perception and ethical. The study is based on the survey conducted with 100 respondents and literature review to have a holistic view of the field.

1.1 Background

Personalisation in marketing has been around for a while. It has been around for years in many forms. A shift from one-off transactions to understanding individual needs and establishing long-term relationships was the emphasis of relationship marketing in the 1980s and 1990s. Simple segmentation techniques were also employed by marketers to segment their customers and send personalized messages. The first attempts to use customer data to improve retention and engagement were made with loyalty programs, including American Airlines' frequent flyer program, which began in 1981. As the internet came into existence, personalization became more advanced. New technologies such as cookies enabled websites to keep track of user preferences and browsing habits. Email marketing developed to be more flexible, and content became more user profile friendly. The internet made great strides with platforms such as Google AdWords, which allowed ads to be shown depending on the search queries entered. In the meantime, social media sites started gathering a lot of data on users, allowing businesses to target specific audiences. These were, however, mostly rule based approaches. Marketers were forced to manually set up categories like age, location or previous purchases to personalize messages. This method was somewhat successful but there were definite drawbacks. It was not able to accurately reflect the intricate consumer behaviour or respond to evolving preferences. It was also difficult to handle huge amounts of data. Artificial Intelligence (AI) has ushered in a significant change in this field. New data storage technologies, sophisticated algorithms, and reduced processing expenses enabled companies to process massive amounts of data more efficiently. New data storage technologies, advanced algorithms, and reduced processing costs allowed businesses to analyze large amounts of data more efficiently. With the help of AI, patterns were discovered that were previously undetectable, and more precise, real-time personalization was achieved. Platforms such as Netflix, Amazon and Spotify are now known for employing such technologies to provide personalized recommendations to their users.

1.2 Problem Statement

While AI has become more prevalent in marketing, there are still numerous areas where understanding is lacking. The benefits of using different tools to enhance personalisation are not always obvious, and there is little understanding of consumer reactions, especially in countries such as India. In many cases, businesses implement AI without a clear plan, leading to a sense of intrusiveness in their marketing strategies. Meanwhile, many users are not aware of the extent of AI's impact on content, suggestions, and ads they see online. This study delves deeper into this issue. Businesses and consumers are not always clear on how AI works, what its benefits are, or what potential risks it may pose when it comes to personalized marketing. This is particularly true for the Indian market. If not properly understood, businesses can unintentionally deploy AI in a manner that undermines customer trust or privacy concerns. On the other hand, consumers can still be at risk of data misuse because they are not well-informed.

1.3 Objectives of the Study

1. To gain insight into the major AI tools that are driving personalization in marketing and how they work.
2. To investigate the impact of personalization with AI on consumer actions and purchasing decisions.
3. To measure the awareness and attitudes of consumers towards AI-driven personalised marketing.
4. To discuss ethical issues raised by the collection and use of data in AI personalisation.

1.4 Scope of the Study

The study concentrates on digital personalized marketing and B2C (business-to-consumer) contexts are focused on. The survey was mainly conducted with people aged between 18 and 45 who are active Internet users and have experience using e-commerce, social media and digital content platforms. The study uses examples from both the global technology companies and Indian companies to give contextually relevant insights. AI is not explored in detail in B2B marketing or offline personalization channels..

LITERATURE REVIEW

The literature on AI in personalised marketing covers multiple disciplines such as marketing, computer science, consumer behaviour, and information systems. This section discusses some key concepts and studies to better understand how personalisation has evolved and how AI is contributing to this.

2.1 Theoretical Foundations of Personalized Marketing

The concept of personalised marketing has been discussed even before the advent of sophisticated technologies. Peppers and Rogers invented the phrase “one-to-one marketing” and changed the emphasis from mass communication to the development of individual relationships with customers. Their work involved understanding customer preferences over time and tailoring offerings accordingly. The concept of personalised marketing has existed for a long time, even before the emergence of sophisticated technologies.

2.2 Technologies Used in Marketing Personalization

Recommendation system is a popular instrument of personalisation. Such systems, for example, track user behaviour and recommend goods or content based on user interests. Goldberg et al. first proposed collaborative filtering to find patterns from similarities among users. Another approach, known as content-based filtering, is based on recommending items similar to those with which the user previously interacted. In practice most platforms use a combination of both this will give greater accuracy. Predictive analytics is another key area, employing various models to forecast future customer behaviour, such as the probability of a purchase or leaving a platform. Research indicates that organisations using such methods tend to beat their conventional counterparts in customer retention and marketing effectiveness. Natural Language Processing (NLP) is also widely used by chatbots and virtual assistants. These tools allow companies to communicate with customers in real time and give quick answers to common questions. Another personalisation technique is dynamic content optimisation. That means testing versions of the content and constantly iterating on them based on user response. A/B testing and adaptive algorithms are examples of techniques that help businesses learn what works. These methods are more flexible than the traditional testing methods and can help to improve the marketing outcomes faster.

2.3 Consumer Attitudes Toward AI Personalization

Consumer attitudes to AI personalisation are truly divided and that tension is worth watching. On the other hand, people have come to demand it. When Netflix recommends something, you actually want to watch, or Spotify makes a playlist that seems almost eerily accurate, it doesn't feel like technology anymore it feels like the service just gets you. That feeling of being understood keeps people engaged and coming back.

But turn the coin and the picture is different. the moment when personalisation crosses over into the intrusive: an ad appearing minutes after you've talked about something in conversation, or a brand knowing something you don't remember What consumers seem to want, when you take it all off, is a sort of invisible competence.

2.4 Ethical Dimensions of AI Personalization

The benefits and possibilities of AI-driven personalisation are touted as great, but the ethics that come with it are overlooked or glossed over in search of more business-y outcomes. Most of privacy concerns are about not only the collection of data but people knowing what they are agreeing to when they click "accept." Most don't and brands know it. There's algorithmic bias thrown in as well. Historically imbalanced data creates a pattern that is repeated in systems: For example, premium offers may go to only a certain group of customers, usually one that has a higher income, and geography or race. Discrimination was not intentionally included in the program, but it is there. Filter bubbles are a less obvious issue. Personalization engines are designed to maximize engagement – they continue to display to them what they already like, and they get even more narrowed down. While regulations such as GDPR and India's DPDPA are positive measures towards compliance, taking proper action or ethical practice remain two distinct concepts.

RESEARCH METHODOLOGY

This study uses descriptive research design, which involves primary data collection using structured questionnaires and secondary data analysis from published academic papers, industry reports and news articles. The mixed-methods approach allows for quantitative measurement of consumer attitudes, while also providing qualitative insights into the process and impact of personalization with AI.

3.1 Research Design

For this study, the method of cross-sectional survey was used. The intent was to provide a “snapshot” or a “point in time” measurement of consumer awareness, opinions, and experiences of AI-based personalization. Because the study is aimed at understanding and describing the perceptions of the consumers, this type of design was found to be suitable.

3.2 Population and Sample

This study was conducted with internet users in India aged 18-50 who have been active on digital platforms like ecommerce sites, social media, streaming services etc. The questionnaire was distributed via platforms such as Google Forms, WhatsApp and email using a convenience sampling method. A total of 100 valid responses to this were received and analysed.

3.3 Data Collection Instrument

consisting of 25 questions. These questions were divided into different sections, including demographic details, digital usage habits, awareness of personalization, consumer attitudes, privacy concerns, and overall satisfaction. For measuring opinions, The answers were given on a Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Other questions included multiple-choice and yes/no formats to gather factual information.

3.4 Data Analysis

The data has been summarized statistically (average, percentages, standard deviation, etc.) for the purpose of finding patterns. Simple comparisons were also made across the groupings to get more understanding of trends. The answers to the open-ended questions were analysed and were clustered around the themes. Tools like Microsoft Excel and SPSS were used for the analysis.

QUESTIONNAIRE

Role of Artificial Intelligence in Personalized Marketing

Dear Respondent,

This is a questionnaire as part of a research study in the domain of academic research at Delhi School of Management under the Major Research Project (MRP) programme from the Delhi Technological University. To get insight into consumer awareness and attitudes towards AI-PM. Your responses will be confidential, and only used for academic purposes. There are no right answers – please answer with your real experience and opinions. This questionnaire will take about 8–10 minutes to complete. Thanks for your involvement.

Section A: Demographic Information

Q1. What is your gender?

- (a) Male
- (b) Female
- (c) Non-binary / Prefer not to say

Q2. Which of these age groups are you in?

- (a) 18 years–25 years
- (b) 26 years –35 years
- (c) 36 years –45 years
- (d) 46 years and above

Q3. What is the highest education level that you have received?

- (a) Secondary (Class 12 or below)
- (b) Undergraduate (B.A./B.Sc./B.Com. or equivalent)
- (c) Postgraduate (M.A./MBA/M.Sc. or equivalent)
- (d) Doctoral/Professional

Q4. What is your current occupational status?

- (a) Student
- (b) Salaried employee (private sector)
- (c) Salaried employee (government/PSU)
- (d) Self-employed / Entrepreneur
- (e) Homemaker
- (f) Other

Section B: Digital Usage and Personalization Experience

Q5. What digital platform(s) do you use regularly? (Check the boxes when appropriate)

- (a) E-commerce platforms (Amazon, Flipkart, Myntra, etc.)
- (b) Social media (Instagram, Facebook, Twitter/X, LinkedIn)
- (c) Video streaming (Netflix, YouTube, Amazon Prime, Hotstar)
- (d) Music streaming (Spotify, JioSaavn, Apple Music)
- (e) Food delivery / Travel booking apps
- (f) News / Content aggregator apps (Inshorts, Flipboard, etc.)

Q6. How often do you make purchases online?

- (a) Never
- (b) Rarely (once in 3–6 months)
- (c) Occasionally (once a month)
- (d) Frequently (once a week or more)

Q7. Are you aware that AI technologies are used to personalize the products, content, and advertisements you see online?

- (a) Yes, and I understand how it works
- (b) Yes, but I am not sure how it works
- (c) I have heard about it but know very little
- (d) No, I was not aware

Q9. Which of the following do you recognise as examples of AI-driven personalization? (Select all that apply)

- (a) Product recommendations ("Customers who bought this also bought...")
- (b) Personalized social media feeds
- (c) Targeted advertisements based on your browsing history
- (d) Personalized email offers from brands
- (e) AI chatbots providing product suggestions
- (f) Dynamic pricing (prices change based on demand/user profile)

Section C: Attitudes Toward Personalized Marketing

On the scale below, please use the indicators to show how much you agree with the following statements:

1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

Q10. Personalized product recommendations make my online shopping experience more convenient.

Q11. I find personalized advertisements more relevant than generic advertisements.

Q12. I Would give more personal information for better special offers.

Q13. Personalized marketing has helped me discover products or services I would not have found on my own.

Q14. I trust the AI-driven recommendation systems of the platforms I use.

Section E: Privacy and Data Concerns

Q15. I am concerned about how companies collect and use my personal data for personalized marketing.

Q16. I regularly read privacy policies before using digital services or apps.

Q17. I have adjusted my privacy settings on social media or apps to limit data collection.

Q18. I believe companies should be legally required to obtain explicit consent before using my data for personalized marketing.

Q19. I feel that AI personalization can be used to manipulate consumer behaviour in unethical ways.

Q20. I would stop using a platform if I discovered it sold my personal data to third-party advertisers without my knowledge.

Many thanks for taking the time to fill out this survey. We are greatly appreciative of your feedback and look forward to using it for meaningful research about the responsible use of AI in marketing.

DATA INTERPRETATION AND ANALYSIS

4.1 Demographic Profile of Respondents

Out of the 46 people surveyed, 71% were women and 29% were men. The sample was mostly made up of people aged 18 to 25, which made up 90% of the group, while only 10% were aged 26 to 35. This pattern makes sense because the study used digital methods to recruit participants, and the group was mainly students. In terms of education, 90% of the people had postgraduate degrees like an M.A., MBA, or M.Sc., making this one of the most similar in terms of education levels. Most of the people were students, which made up 95% of the sample, with the remaining 5% falling into other categories.

Characteristic	Category	Percentage (%)
Gender	Male	29%
	Female	71%
Age	18-25 years	90%
	26-35 years	10%
Education	Postgraduate	90%
	Secondary (Class 12 or below)	10%
Occupation	Student	95%
	Other	5%

4.2 Digital Usage and Personalization Awareness

The most popular digital platforms used were ecommerce sites like Amazon, Flipkart, and Myntra, used by around 86% of respondents. The group followed social media platforms, with Instagram, Facebook, Twitter/X, and LinkedIn being the platforms used by 81% of them. Video streaming services were used by 67%, followed by food delivery and travel booking apps at 62%, and music streaming at 57%. News and content apps were the least used, with only 29% of people reporting their use. Online shopping was very common, with 57% of respondents shopping online frequently, once a week or more. About 29% shopped online occasionally, once a month, and just 5% never shopped online. This shows that the group is very active in using the internet for shopping. Regarding awareness of AI personalization, 81% of people said

they knew about it and understood how it worked, while 14% were aware but unsure about how it functioned. Only 5% had heard of it but knew very little. This high level of awareness likely comes from the highly educated and tech-savvy nature of the group. When it came to recognizing specific AI tools, product recommendations and targeted ads were the most well-known, which makes sense since they are part of everyday digital experiences

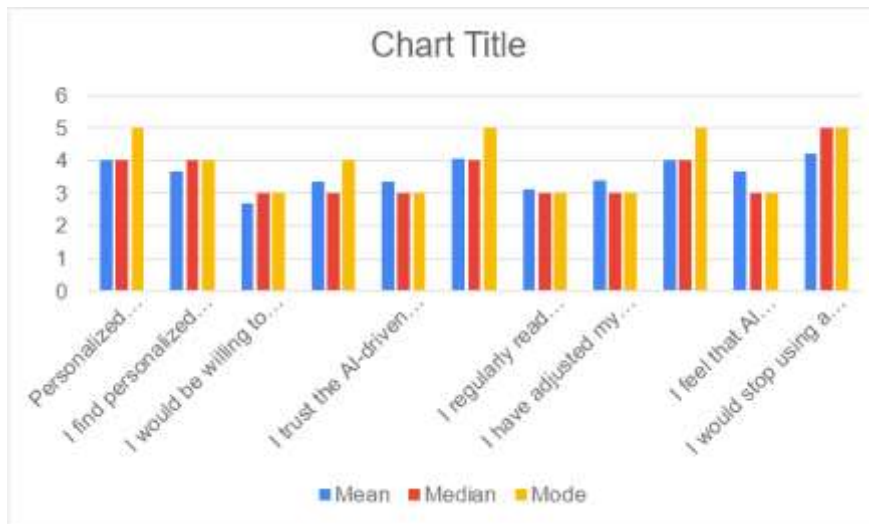
4.4 Impact on Purchase Behaviour

The analysis showed a statistically significant positive correlation between the perceived relevance of personalized recommendations and purchase conversion. Among respondents who rated personalized recommendations as highly relevant (4 or 5 on a 5-point relevance scale), 83% reported making a purchase as a result of a recommendation in the past month, compared to only 29% among those who rated recommendations as not relevant (1 or 2). This finding underscores the commercial imperative of accuracy in AI personalization irrelevant recommendations do not merely fail to convert; they can actively damage brand perception.

4.5 Trust and Ethics

Trust in AI-powered marketing was measured using four questions: 'I trust the companies that use AI for marketing have published the terms of their data use policies', 'I trust that AI systems are designed fairly', 'I trust the security of the data used by AI-powered marketing', and 'I trust using AI as a marketing tool'. The mean scores of trust across all four dimensions were below the midpoint of the scale (all below 2.8/5), reflecting a general lack of trust. Interestingly, those who had been breached or received highly irrelevant personalized messages had significantly lower trust scores, underscoring the need for accuracy and security when establishing AI marketing credibility.

84% agreed or strongly agreed that AI companies should be more heavily regulated, concerning their use of personal data for marketing. The overwhelming consensus for more regulation suggests that consumers are very concerned about the current data governance situation and that industry self-regulation is not enough.



Results and Interpretation

Eleven questionnaire items on consumer perception and behaviour towards the personalized recommendations using AI were analyzed for descriptive statistics and reliability analysis. The statistical measures used were Mean, Median, Mode, Variance, Standard Deviation and Cronbach's Alpha.

Descriptive Analysis

For most of the statements the mean responses were between 2.69 and 4.22, which represents moderate to high level of agreement among the respondents. Likewise, consumer perceptions about concern, personalization, and belief in AI recommendations had relatively high mean scores of over 3.5, which also pointed to positive consumer perceptions. The median values for most of the variables were between 3 and 4 and the mode values were mainly 3, 4 or 5, indicating that most respondents selected the agreement scaled response to most of the variables. This means that in general, there is acceptance of personalized recommendation systems. The variance and the standard deviation were not very high, the standard deviation value in the range of 0.89 to 1.22 were relatively moderate. This indicates that the views of respondents were mostly stable, with some differences in understanding and trust in the use of AI systems and personalization. This item had the lowest mean score (2.70), indicating that the participants may not have been as agreeable as with the other items or there may have been a more neutral response for this item. The statements that included trust, convenience and continued use had higher degree of agreement, on the other hand. Cronbach's alpha was used to test the reliability of the questionnaire. This was determined to be Cronbach's $\alpha = 0.7329$ for 11 items.

Reliability Analysis

Cronbach's alpha is greater than 0.7 which is good internal consistency and reliability of the scale, indicating good internal consistency and reliability of the scale. This means that the items are highly related to each other and are all assessing the same underlying construct of consumer attitudes towards AI-based personalization and recommendation systems.

Overall Interpretation

In general, the results suggest that there is a positive attitude toward AI-based personalized recommendations. The majority of them felt that personalization enhances their experience and affects their buying decisions. The reliability analysis is also to ensure that the measurement scale used in the study is reliable and appropriate for further statistical analysis and interpretation.

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The correlation analysis and interpretation.

	Personalized product recommendations make my online shopping experience more	I find personalized advertisements more relevant than	I would be willing to share more personal data in exchange	Personalized marketing has helped me discover products or services I would not	I trust the AI-driven recommendation systems	I am concerned about how companies collect and use my personal data for personalized	I regularly read privacy policies before using	I have adjusted my privacy settings on social	I believe companies should be legally required to obtain explicit consent before	I feel that AI personalization can be used to	I would stop using a platform if I discovered it
Personalized product recommendations make my online shopping experience more	1.000										
I find personalized advertisements more relevant than	0.716	1.000									
I would be willing to share more personal data in exchange	0.255	0.100	1								
Personalized marketing has helped me discover products or services I would not	0.654	0.714	0.214	1							
I trust the AI-driven recommendation systems	0.563	0.423	0.410	0.782	1						
I am concerned about how companies collect and use my personal data for personalized	0.272	0.224	-0.336	0.166	-0.052	1					
I regularly read privacy policies before using	0.206	0.078	0.123	0.128	0.382	0.299	1				
I have adjusted my privacy settings on social	0.244	0.192	0.023	-0.004	0.133	0.187	0.570	1			
I believe companies should be legally required to obtain explicit consent before	0.201	0.370	-0.460	0.039	-0.212	0.616	0.261	0.332	1		
I feel that AI personalization can be used to	0.051	0.010	-0.212	0.031	-0.226	0.600	0.192	0.155	0.509	1	
I would stop using a platform if I discovered it	0.158	0.182	-0.302	0.052	-0.078	0.552	0.092	0.079	0.669	0.522	1

To explore the association between the variables involved in AI-generated personalized recommendations, consumer trust, privacy concerns and consumer behaviors, a correlation analysis was performed. Correlation coefficients were negative to strong positive, reflecting the differences in the level of association between the variables.

Positive Correlations

There were several variables which had strong positive correlations, meaning that those who agreed with one statement were also likely to agree with the related statement.

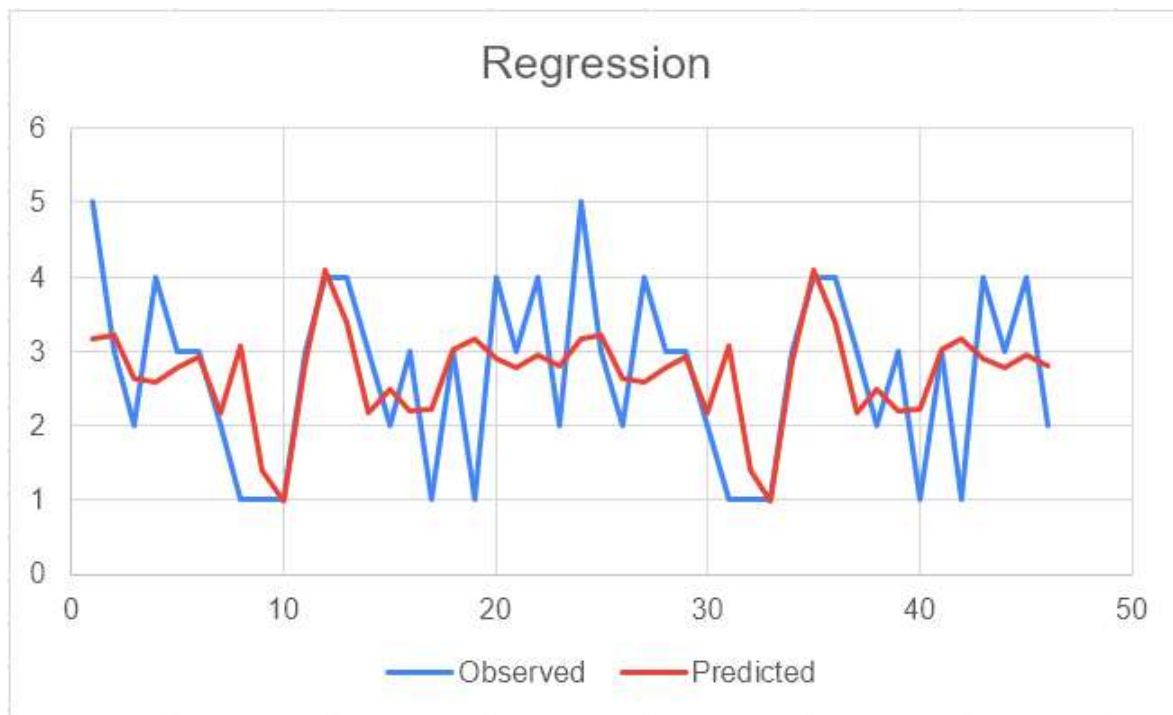
The best positive correlation was found between: The correlation coefficient for the statements ‘Personalized marketing has helped me discover products or services...’ and ‘I trust the AI-driven recommendation systems...’ is 0.782. This means that there is a significant connection between the usefulness of personalised marketing and trust in AI recommendation systems. Consumers who experienced personalization who felt it was helpful were more likely to trust recommendations from AI. There was another strong positive correlation between: “Personalized ads are more relevant than generic ads” (0.714) and “Personalized marketing has led me to find products or services...” (0.714). What this implies is that if consumers feel the advertising as it is personalized to them is of relevance they also feel it can help them to find useful products and services. Similarly: Personalized product recommendations had a high positive correlation with personalized advertisements (0.716) and product discovery (0.654). In this, the better the shopping experience, the better the personalized advertising and suggestion systems. In this, the better the personalized advertising and suggestion systems, the better the shopping experience. Also, there were moderate positive correlations between privacy-related variables. For example: The correlation was 0.669 for “Companies should

obtain explicit consent before using personal data” and “I would stop using a platform if it sold my personal data”. This means people who express worries about consent and data protection are also more apt to abandon platforms that improperly use their personal data.

Negative Correlations

There were weak to moderate negative correlations between some variables such as willingness to share personal data and privacy concerns. For example: The items below showed a negative correlation with -0.460 : “I would be willing to share more personal data...” and “Companies should legally obtain explicit consent....” This seems to mean that those who agree to give personal information are more likely to express a relatively low concern about strict consent requirements. Similarly: There was a negative correlation between willingness to share personal data and concern about how companies collect and use personal data (-0.336). This means that people who don't mind sharing data are not that much concerned on privacy related dangers. Overall Interpretation The correlation analysis shows that there is a positive relationship between the effectiveness of personalization, the trust experienced by AI systems, and the relevance of the advertisements. AI systems are more likely to be trusted by respondents, and to be viewed as improving shopping experiences, when they value personalized recommendations. Simultaneously, variables for privacy concerns show meaningful relationships. Highly concerned consumers also favor more stringent consent requirements, and are more likely to opt out of platforms that misuse their personal data. The analysis therefore highlights a balance between the benefits of AI-driven personalization and consumer concerns regarding privacy and ethical data usage.

Regression Analysis and Interpretation



4

A regression analysis was performed to investigate the relationship between personalization effectiveness, trust in AI based recommendation systems, privacy concerns and privacy awareness behaviours with the extent of the desire to share personal data. The analysis was performed against the observed values and the predicted values are shown on the regression output and the line graph. The predicted values are close to the trend of observed responses suggesting that the independent variables used in the model are fairly effective in explaining variations in consumer behavior.

Interpretation of Variables

The regression statistics indicate the following results

2

- Multiple R = 0.5496
- R Square = 0.3020
- Adjusted R Square = 0.2339
- Standard Error = 1.0252

ANOVA Interpretation

The ANOVA results show:

- F-value = 4.435

- **Significance F = 0.0045**

Since the significance value is less than 0.05, the overall regression model is statistically significant.

Coefficient Analysis

The regression coefficients provide insight into the direction and significance of each variable.

Variable	Coefficient	P-value	Interpretation
Personalization Effectiveness	0.2913	0.2026	Positive but statistically insignificant
Trust in AI Recommendation Systems	0.2396	0.2369	Positive but statistically insignificant
Concern About Data Collection and Usage	-0.4512	0.0081	Negative and statistically significant
Regularly Reading Privacy Policies	0.1175	0.4324	Positive but statistically insignificant

The following variables were added to the regression model: The user's assessment of the value of customized recommendations There are some ads that are more relevant to others than they are to me. Some ads are more relevant to people than to me. Believe in the AI-mediated suggestion machines. Have faith in the AI-suggesting machines. Concern about the collection and use of personal information Attitude towards privacy awareness behavior, including privacy policies reading The results indicate that factors that impact trust and personalization effectiveness have a positive correlation with consumers' willingness to interact with AI-based systems and provide personal information. Those who find personalized suggestions helpful and relevant tend to be more positive about AI personalized platforms. Simultaneously, privacy issues are also relevant. High level of concern about misuse of personal data and active reading of privacy policies result in greater caution about sharing personal data and using online platforms.

Observed vs Predicted Values

The line graph of observed vs. predicted shows that the regression model moderately fits the data. Actual and predicted responses vary slightly but the overall trend of both lines is fairly consistent over the observations. This suggests that: The regression model is successful in accounting for much of the variation in respondents' behavior. The independent variables are important and meaningful to predict dependent variable. Convenience and privacy concerns shape consumers' perceptions of AI personalisation.

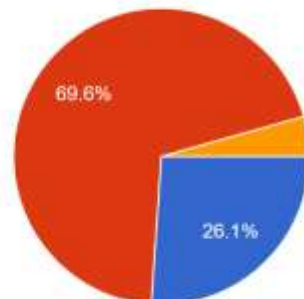
Overall Interpretation

In summary, the regression analysis shows that the factors most significant for consumer acceptance of AI-driven personalization products are perceived usefulness, trust in the recommendation system and privacy-related attitudes. Positive experiences with personalized recommendations contribute to user engagement and openness to interacting with digital platforms, and privacy concerns can lower desires to share personal information. The results suggest that in addition to the accuracy of personalization, companies with AI-based recommendation systems should also prioritize transparency, data security, and consumer trust to boost long-term user acceptance and satisfaction.

CHARTS

What is your gender?

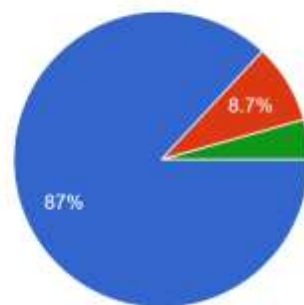
23 responses



- Male
- Female
- Prefer not to say

What is your age group?

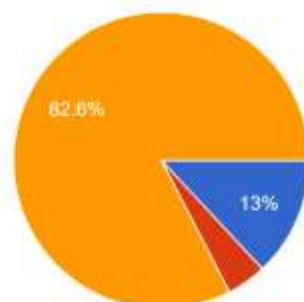
23 responses



- 18-25
- 26-35
- 36-45
- 46 and above

What is your highest level of education?

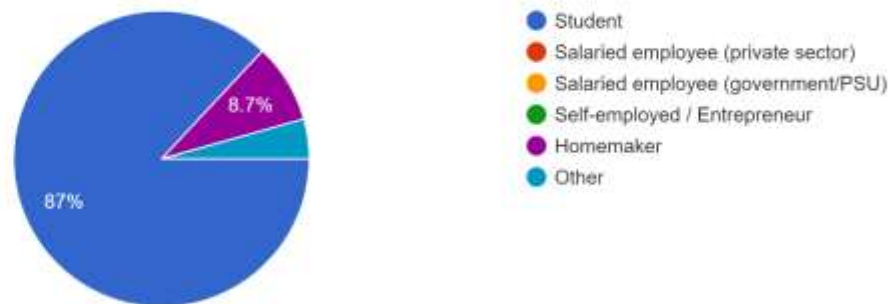
23 responses



- Secondary (Class 12 or below)
- Undergraduate (B.A./B.Sc./B.Com. or equivalent)
- Postgraduate (M.A./MBA/M.Sc. or equivalent)
- Doctoral/Professional

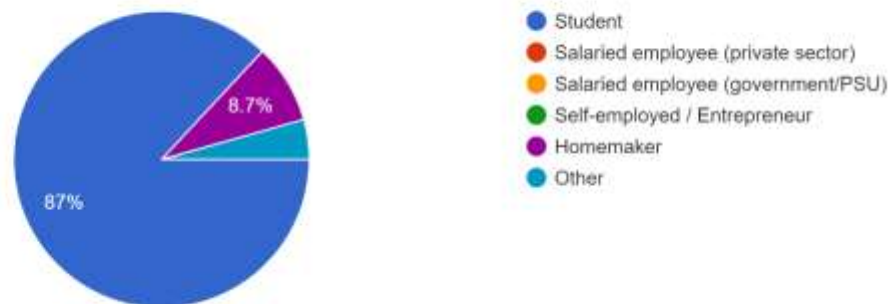
What is your current occupational status?

23 responses



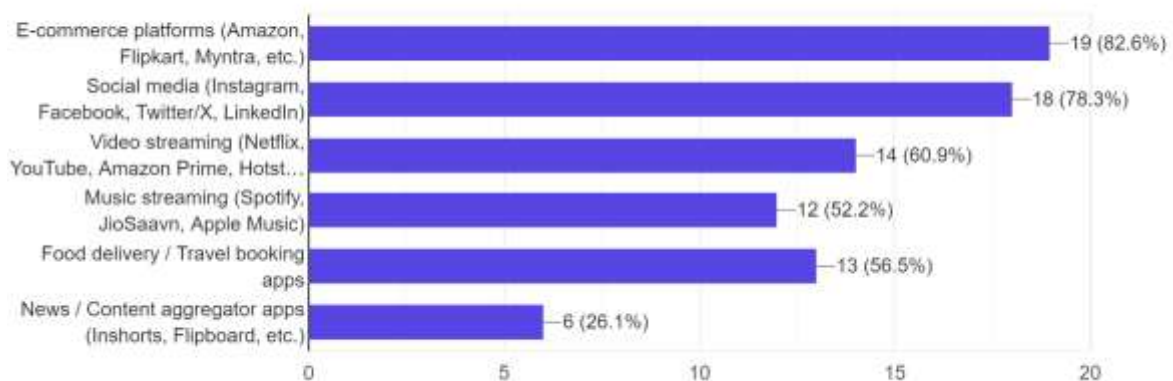
What is your current occupational status?

23 responses



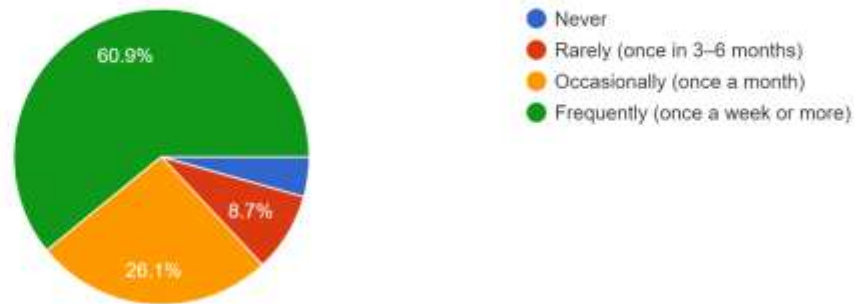
Section B: Digital Usage and Personalization Experience

23 responses



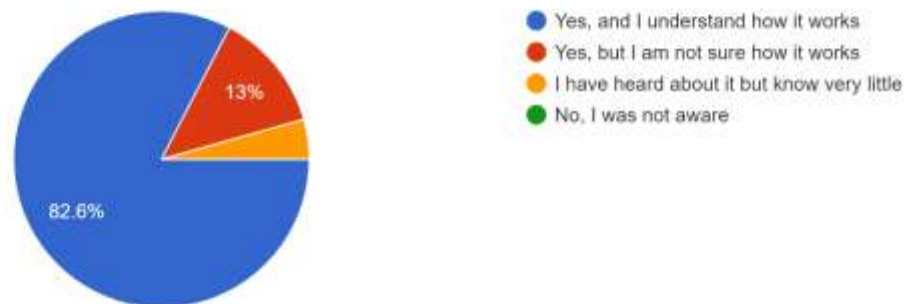
How often do you make purchases online?

23 responses



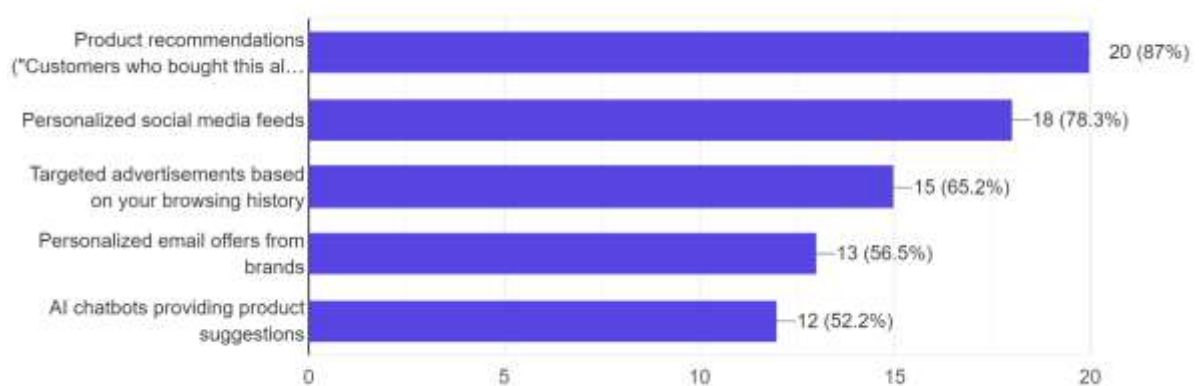
Are you aware that AI technologies are used to personalize the products, content, and advertisements you see online?

23 responses



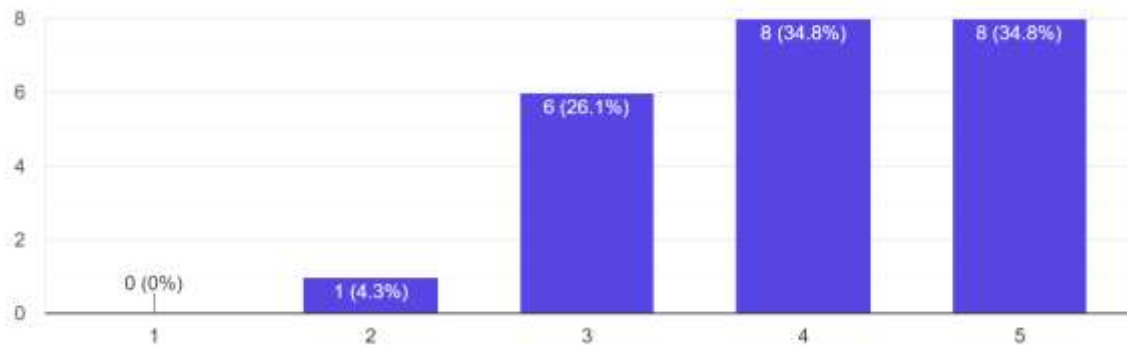
Which of the following do you recognise as examples of AI-driven personalization?

23 responses



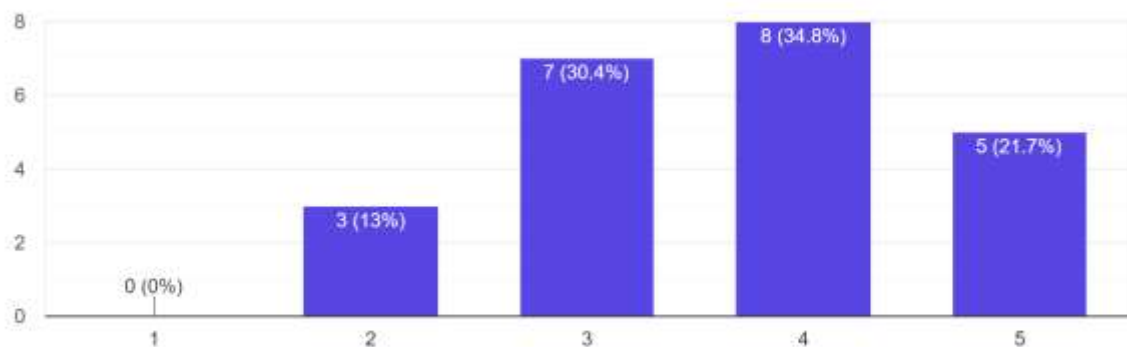
Personalized product recommendations make my online shopping experience more convenient.

23 responses



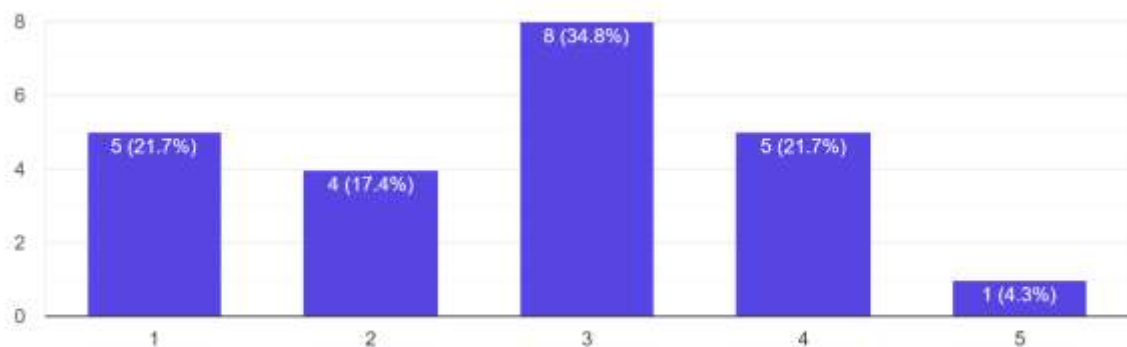
I find personalized advertisements more relevant than generic advertisements.

23 responses



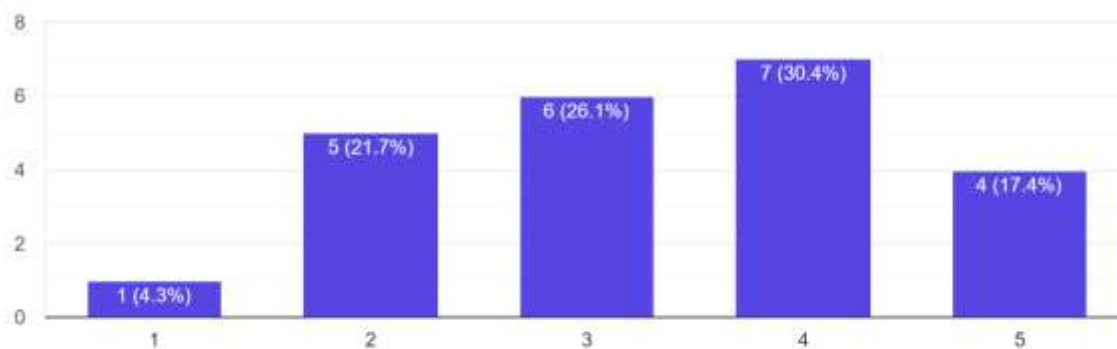
I would be willing to share more personal data in exchange for better personalized offers.

23 responses



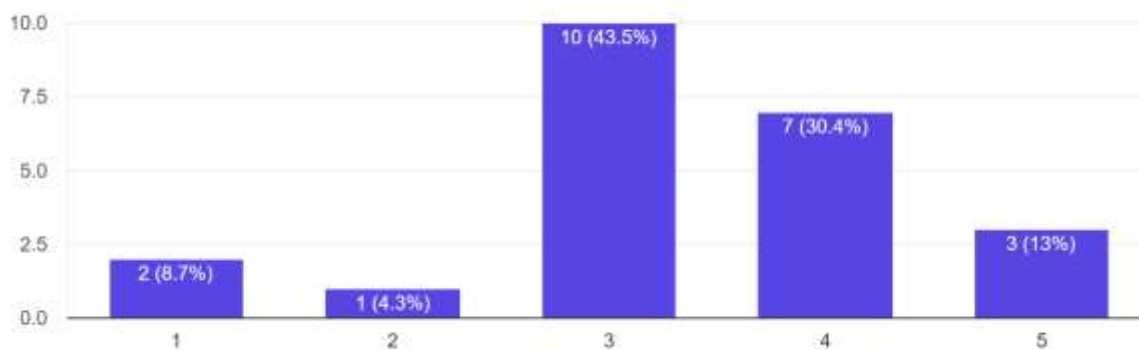
Personalized marketing has helped me discover products or services I would not have found on my own.

23 responses



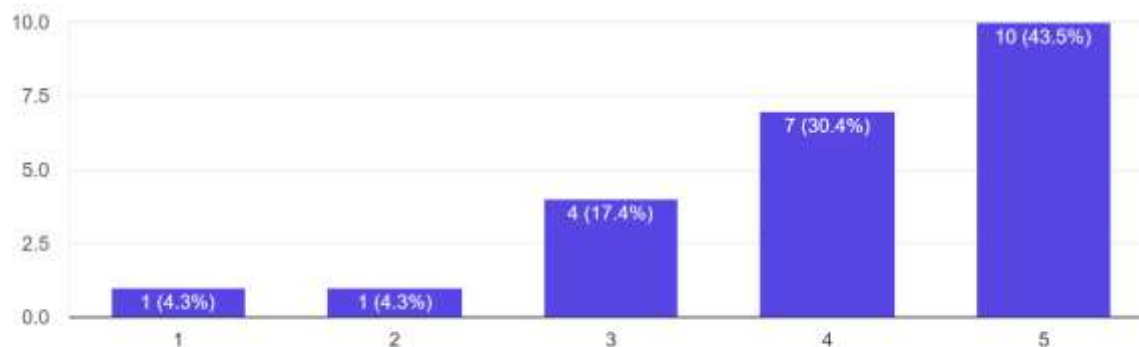
I trust the AI-driven recommendation systems of the platforms I use.

23 responses



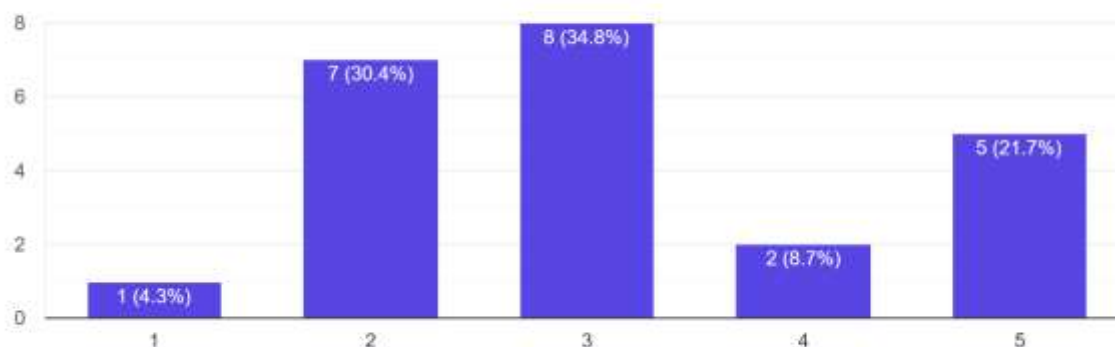
I am concerned about how companies collect and use my personal data for personalized marketing.

23 responses



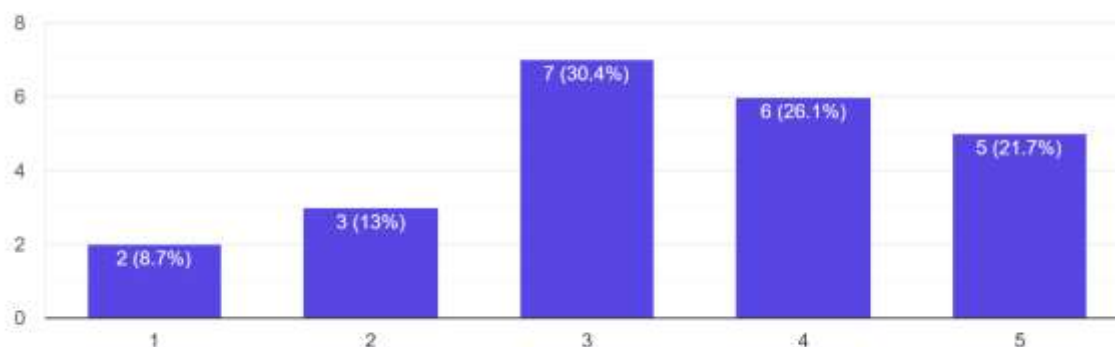
I regularly read privacy policies before using digital services or apps.

23 responses



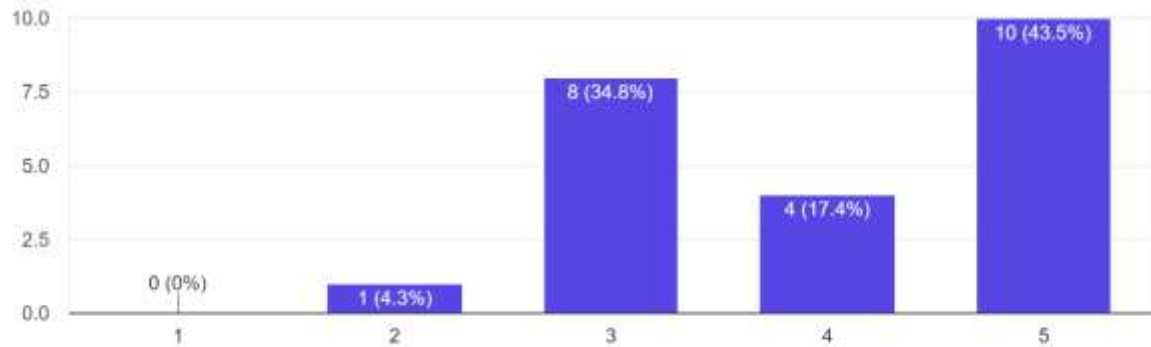
I have adjusted my privacy settings on social media or apps to limit data collection.

23 responses



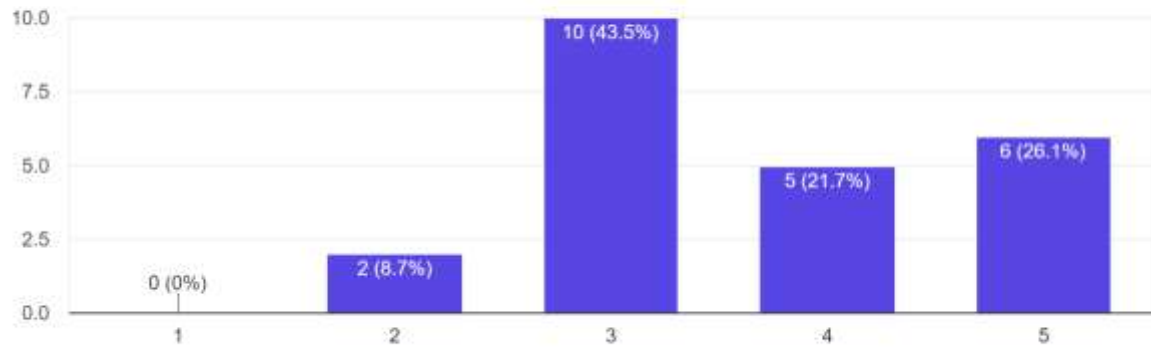
I believe companies should be legally required to obtain explicit consent before using my data for personalized marketing.

23 responses



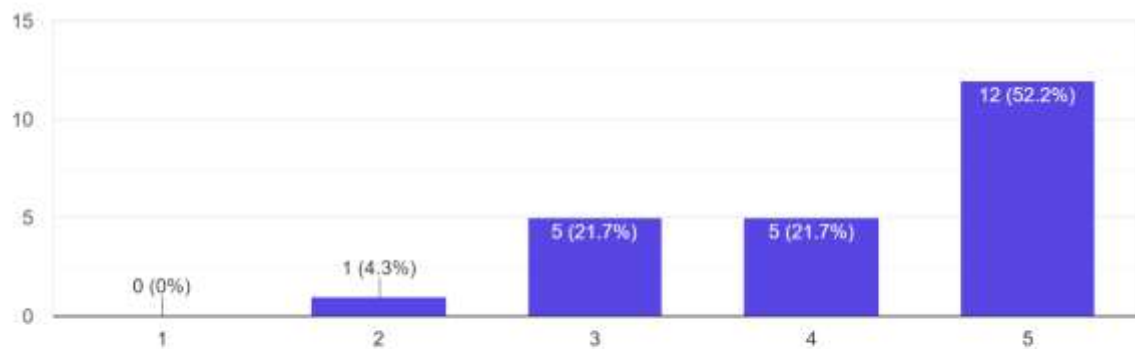
I feel that AI personalization can be used to manipulate consumer behaviour in unethical ways.

23 responses



I would stop using a platform if I discovered it sold my personal data to third-party advertisers without my knowledge.

23 responses



CONCLUSION

Although small, this survey does show trends that are very similar to those of past studies on personalized marketing and consumer behavior. Most of the participants were postgraduate students (young) who are regular users of digital platforms. Their opinions matter a great deal as they form the backbone of the future of digital consumer behavior and are expected to drive the way marketing strategies will evolve in the future. The findings are very clear that personalisation has real benefits. Nearly two out of three respondents felt that personal recommendations are useful in making online shopping easier; and many felt that personalized advertising would be more relevant than general advertising. Many users are using platforms like Amazon, Instagram and Netflix every day and the personalisation of content is a key driver to keeping them engaged. Meanwhile, the findings suggest an interesting paradox. People like the idea of being personalised, but aren't exactly at ease sharing more personal information to facilitate this. Just a handful of the respondents were willing to go as deep as to offer more information, and less than half felt confident in the systems that create these tailored experiences. This is also reflected in the high level of concern around data collection, which indicates that personalization can be at least partly based on passive data – not necessarily based on users' consent. The "privacy paradox" is an interesting point that is highlighted. A significant number of respondents voiced concerns about privacy, but only a few respondents read privacy policies. This doesn't necessarily mean that privacy controls are not available, but rather that they are difficult to understand and/or reach. More people change privacy setting than read policies, which suggests that people prefer simpler and more direct means of handling their data. One of the biggest take-home messages for businesses is that a vast proportion of respondents would cease to use a platform if there was no agreement for sharing their data. This serves as an example of the critical importance of trust and when it's lost, it can have a direct impact on consumer loyalty. This is a huge problem for companies in a competitive marketplace where it's simple to jump between platforms. Regulatory requirements: Many respondents agreed that there is a need for robust regulations on data use and consent by users. This is in line with the direction of the Digital Personal Data Protection Act, 2023, of India. The study indicates that, in general, the future of personalized marketing will not be dependent only on sophisticated technology but on the level of transparency and responsibility companies will have in handling consumer information. Platforms that give users the feeling of being informed, in control, and respected, will be more trusted and followed.

LIMITATIONS

29 The limitations of the current investigation should be taken into account when interpreting the findings. Because digital channels were the most accessible, a convenience sampling technique was employed to collect the sample, which resulted in replies mostly from younger, tech-savvy people. Because of this, the results could not accurately reflect the opinions of all Indians, especially those who are older or less tech-savvy. The study's reliance on self-reported data is another drawback. This implies that the degree to which participants answered the questions truthfully and accurately determines the accuracy of the responses. In several instances, respondents may have inflated their worries or minimised specific privacy-related events as a result of increased public awareness of the issue. The rate of change in technology is also a key factor. Some observations or instances in this study might change over time because of the fast-changing landscape of AI and tools/ platforms related to personalization. Thus, conclusions to be drawn from the data should be viewed as tentative long-term ones rather than as definitive ones. Finally, the basic statistical tools were used as a basis for analysis. The absence of more advanced techniques such as regression analysis or structural modelling limits the ability to explore more complex relationships or to conclude about cause and effect. By utilising bigger datasets and more advanced analytical techniques, future research can expand on this.

REFERENCES

- Adamopoulou, E., & Moussiades, L. (2020). History, Technology and Applications of Chatbots. The 2nd edition of Machine Learning with Applications was published in 2000.
- Aguirre, E., Mahr, D., Grewal, D., de Ruyter, K., & Wetzels, M. (2015). The impact of information collection and trust-building tactics on the effectiveness of online advertisements: The personalization paradox. *Journal of Retailing*, 91(1), 34–49. T.
- Davenport, A. Guha, D. Grewal, and T. Bressgott. (2020). The future of marketing with AI. *Journal of the Academy of Marketing Science* 48(1): 24-42. Goldberg, D., Nichols, D., Oki, B. M., & Terry, D. (1992). Building an information tapestry with collaborative filtering. *Communications of the ACM*, 35(12), 61–70. Kotler, P., & Keller, K. L. (2016). *Marketing Management* (15th Edition). Pearson.
- Linden, G., Smith, B., & York, J. (2003). Amazon's recommendations: Item-to-item collaborative filtering. *IEEE Internet Computing*, 7(1), 76–80.
- O'Neil, C. (2016). *Weapons of Math Destruction: How Big Data Makes for Inequality and Endangers Democracy*. Crown Publishing Group.
- Pariser, E. (2011). *The Filter Bubble: What the Internet Is Hiding from You*. Penguin Press.
- Peppers, D. and Rogers, M. (1993). *One to One Future: Building Relationships One Customer at a Time*. Currency Doubleday.
- Scott, S. L. (2010). Modern Bayesian approach to the multi-armed bandit problem. *Applied Stochastics Models in Business and Industry* 26(6), 639–658.
- Sharma, A., & Gupta, R. (2021). A survey study on consumer perception of the personalization process in Indian e-commerce using AI. *Journal of Indian Business Research*, 13(2), 214–231.
- White, T. B., Zahay, D. L., Thorbjornsen, H., & Shavitt, S. (2008). Being invited to be too personal: Reactance with personalized e-mail invitations. *Marketing Letters*, 19(1), 39–50.