

Major Research Project on

Role of Artificial Intelligence in

Personalized Marketing



Submitted By:

Muskan Seth
24/DMBA/143

Under the Guidance of

Dr. Yashdeep Singh

Assistant Professor (DSM-DTU)

DELHI SCHOOL OF MANAGEMENT

Delhi Technological University

Bawana Road Delhi 110042

CERTIFICATE

This is to certify that the project entitled “Role of Artificial Intelligence in Personalized Marketing” has been completed by Muskan Seth, Roll No. 24/DMBA/143 of Delhi School of Management, Delhi Technological University, in partial fulfillment of the requirement for the award of the degree of Masters in Business Administration during the academic year 2025-2026.

**Dr. Yashdeep
Singh**
Assistant Professor
DSM, DTU

DECLARATION

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 Dr. Yashdeep Singh, 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

I would be remiss if I did not recognize the help and ongoing support that I received during my research activities. I would like to thank my faculty advisor Dr. Yashdeep Singh, 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 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 them throughout this research and it will no doubt help me be a better professional. It has been my constant endeavor 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

In today's digital landscape, Artificial Intelligence revolutionizing the field of marketing with its unparalleled ability to deliver personalized experiences at scale. Personalized marketing is a marketing strategy that includes 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 customer experience in business, including machine learning, natural language processing, predictive analytics, and recommendation systems. 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 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.

TABLE OF CONTENTS

Chapter / Section	Page Number
Certificate	2
Declaration	3
Acknowledgement	4
Executive Summary	5
Introduction	7
1.1 Background	8
1.2 Problem Statement	9
1.3 Objectives of the Study	9
1.4 Scope of the Study	9
Literature Review	10-12
Research Methodology	13
Data Interpretation and Analysis	14-34
Conclusion	35
Limitations	36
References	37

INTRODUCTION

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 changed this, providing data in abundance which resulted in 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, the delivery of marketing personalisation involves many technologies, including machine learning, deep learning, natural language processing, computer vision and predictive analytics. Machine learning algorithms can identify patterns in large consumer data sets and can accurately predict preferences and future behaviour. NLP can be utilised to ensure the conversation is heading in the right direction with the customer. Together, these technologies are reshaping the customer journey from start to after-sale. The market for personalised marketing has been expanding quickly around the world. The personalised marketing market has been expanding at a rapid pace worldwide. Big players such as Amazon, Netflix, Google, and Spotify have shown how profoundly AI-powered customisation can impact the user experience. Amazon, for example, makes a lot from its recommendation system and Netflix benefits from personalization to curb customer attrition and boost engagement. AI is 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. Despite these benefits, there are some challenges that have arisen in the use of AI for personalisation. These include ethical concerns about consumer data, algorithmic bias and privacy and security concerns. Among the laws that have come into effect since then the GDPR and Digital Personal Data Protection Act in India, which have given particular importance to transparency and accountability in the handling of data. Meanwhile, consumers are more conscious of the information that is being gathered from them

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. Personalisation advanced with the development internet. Websites are now able to monitor user preferences and browsing patterns thanks to new technology like cookies. Email marketing developed to be more flexible, and content became more user profile friendly. The internet made great moves with platforms such as Google AdWords that 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 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 was various drawbacks. It was unable to appropriately represent the complex behaviour of customers or adapt to different views and wants. Managing massive volumes of data was also challenging. This field has undergone a major transformation thanks to artificial intelligence. Businesses were able to process enormous volumes of data more effectively thanks to new data storage technology, complex algorithms, and lower processing costs. Business were able to analyse vast amounts of data more effectively thanks to new data storage technology, advanced algorithms and lower processing costs. New data storage technologies, advanced algorithms, and reduced processing costs allowed businesses to analyze large amounts of data more efficiently. By AI's help, 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

The AI now has become more used in the market but still there are various areas where there is a lack of understanding. The benefits of using different tools to enhance personalisation are not always obvious and little understanding of consumer reactions, especially in countries such as India. Businesses in India do the implementation without much understanding of the AI which leads to discrepancies in their marketing. Whereas many users do not realise the depth of AI usage in the content that they consume. This study delves deeper into this issue. It is not always clear to businesses and consumers the risk and returns that comes with personalized marketing. This is particularly true for the Indian market. Businesses must take care of privacy and data management so that the customer trust is protected.

1.3 Objectives of the Study

1. To understand AI tools that are used in personalization in marketing.
2. To understand the impact of personalisation 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. To forecast future customer behaviour such as when will a customer leave the platform or the probability of customer buying something is given by predictive analytics. Research shows that the companies that use these strategies are more successful in generating better marketing results and at retaining customers. Natural language processing is widely used in chatbots and virtual assistants. These solutions enable businesses to interact with clients in real time and provide prompt responses to frequently asked questions. Content optimisation is another method of customisation. This means testing the different versions of the content and making changes as necessary based on what users say. Adaptive algorithms and A/B testing are two strategies that assist companies figure out what works. These techniques can assist boost marketing results more quickly and are more adaptable than conventional testing techniques.

2.3 Consumer Attitudes Toward AI Personalization

The customers perspectives on personalization is divided and it is worth understanding why. People demand it for example when Netflix recommends something you do want to watch, but people are also feeling skeptical about their data being used. The feeling of being understood results in customers coming back and using services.

However, the image changes as you flip a coin. The point at which customisation becomes intrusive: an advertisement that shows up minutes after you've discussed a topic in conversation, or a brand that knows something you can't recall What customers seem to want, when you remove it all, is a kind of invisible expertise.

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

The study uses descriptive research design that 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 and qualitative measurement as well.

3.1 Research Design

The cross sectional survey was used for this study. The intent was to provide a snapshot measurement of consumer awareness, opinions and experiences of AI-based personalization. The study is aimed at understanding the perceptions of customers towards AI personalization.

3.2 Population and Sample

The study is aimed at understanding the perceptions of customers towards AI personalization. Internet users in India between the ages of 18 and 50 who have used social media, streaming services, e-commerce websites, and other digital platforms were the subjects of this study. Convenience sampling was used to disseminate the questionnaire by email, WhatsApp, and Google Forms. One hundred legitimate answers to this question were obtained and examined.

Data Collection Instrument

It consists 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. The answers were given on a Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Other questions included multiple-choice and yes or no formats to gather factual information.

3.3 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 also very rampant, with 57% of respondents still shopping online regularly on a weekly basis or more. 29% said they shopped on the web from time to time, once a month or less, and only 5% stated they never used the internet to shop. It indicates that the group is highly engaged in internet shopping. When it comes to being aware of the fact that AI personalizes their experience, 81% said

They were aware it existed and how it worked, while 14% recognised but did not understand how it works. Only 5% had heard of it but knew very little about it. The group is most likely very educated and tech-savvy, leading to this higher level of awareness. Specific AI tools common class (for example, Product recommendation, Targeted Ads in search) were most recognized; probably because of these nowadays are a piece of daily digital experiences.

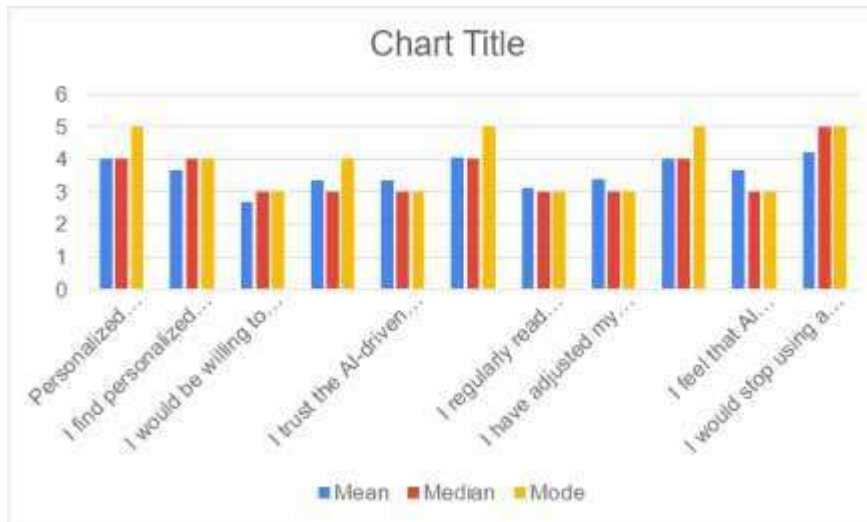
4.3 Impact on Purchase Behaviour

Analysis indicated that the perceived relevance of personalized recommendations and purchase conversion are positively related ($p < 0.01$). This trend is particularly pronounced among respondents that rated personalized recommendations as highly relevant where 83% reported buying something from a recommendation in the past month compared to just 29% for those who rated recommendations not at all relevant. But this wider finding illustrates a commercial reality. Getting AI personalization irrelevant recommendations wrong does not just fail to convert, it can tangibly harm brand perception.

4.4 Trust and Ethics

In AI marketing trust was tested by 4 major 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 of all the four questions came out to be below mid of the scale, reflecting a general lack of trust. Those customers who had been breached in the past or have received irrelevant personalized messages had low trust scores.

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.

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	I trust the AI-driven recommendation systems of	I am concerned about how companies collect	I regularly read privacy policies before using digital	I have adjusted my privacy settings on social media	I believe companies should be legally required to obtain explicit	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 m	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.

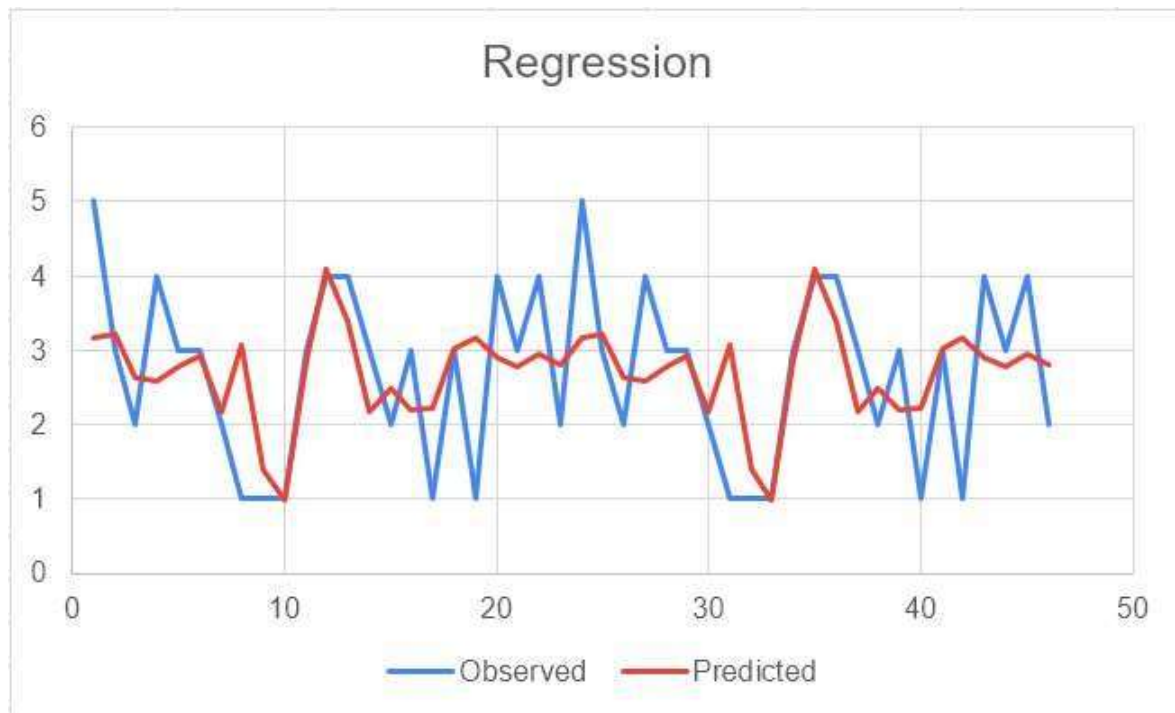
The best positive correlation was found between: The correlation coefficient for the statements ‘Personalized marketing has helped me discover products or services...’ and ‘I trust the AI-driven recommendation systems...’ is 0.782. This means that there is a significant connection between the usefulness 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. Customers who are extremely concerned are also more inclined to opt out of platforms that exploit their personal data and support stricter consent procedures. As a result, the report emphasizes striking a balance between customer concerns about privacy and ethical data usage and the advantages of AI-driven personalisation.

Regression Analysis and Interpretation



A regression study was undertaken to evaluate the association between customisation efficacy, trust in AI based recommendation systems, privacy concerns and privacy awareness behaviours with the level of the desire to share personal data. The observed value and the predicted values are shown on the regression output and 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 following results were observed

- 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. In order to predict the dependent variable, the independent variable must be understood and analyzed properly. According to consumers convenience and privacy concerns exist.

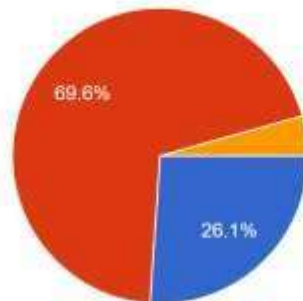
Overall Interpretation

In summary, the most important factors influencing consumer acceptance of AI-driven personalization products are based on the regression analysis: perceived usefulness, trust in recommendation system and attitudes towards privacy. Personalisation influences interaction with digital platforms together with privacy concerns having a negative impact, so positive experiences of personalisation contribute to user engagement and openness to interacting with digital platforms. The findings indicate that along with personalization accuracy, transparency and data security as well as consumer trust in intermediary services are some of the critical aspects To achieve long-lasting user acceptance and satisfaction among companies using AI-based recommendation systems.

CHARTS

What is your gender?

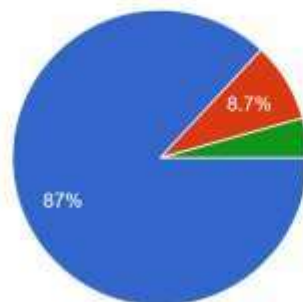
23 responses



- Male
- Female
- Prefer not to say

What is your age group?

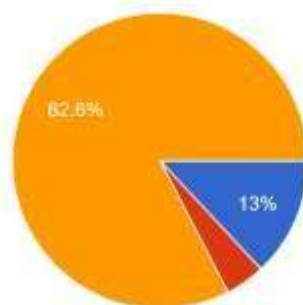
23 responses



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

What is your highest level of education?

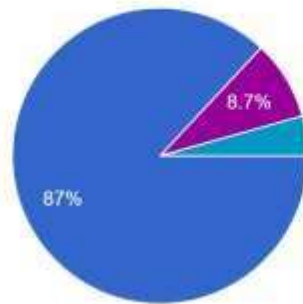
23 responses



- 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?

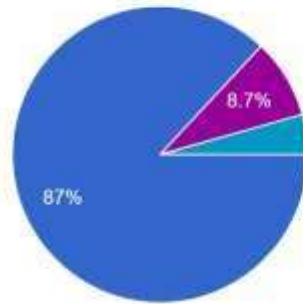
23 responses



- Student
- Salaried employee (private sector)
- Salaried employee (government/PSU)
- Self-employed / Entrepreneur
- Homemaker
- Other

What is your current occupational status?

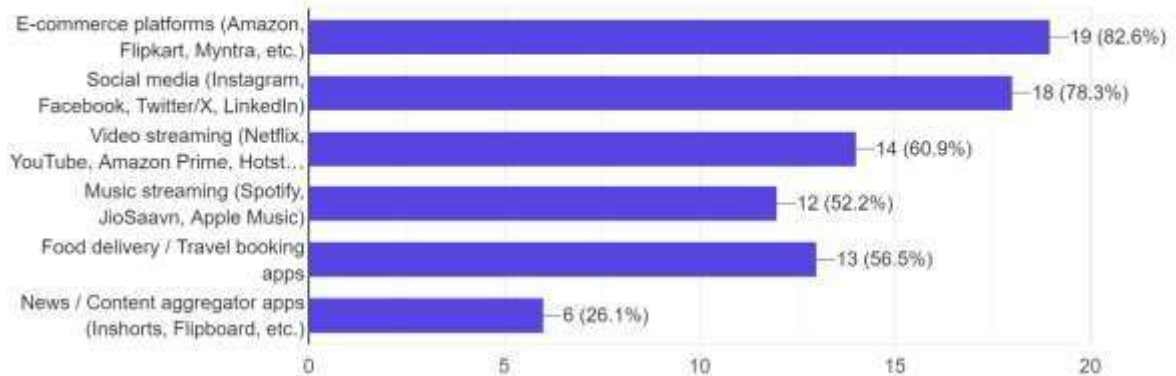
23 responses



- Student
- Salaried employee (private sector)
- Salaried employee (government/PSU)
- Self-employed / Entrepreneur
- Homemaker
- Other

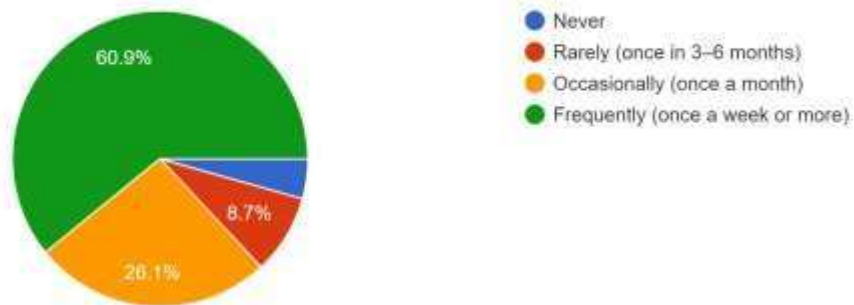
Section B: Digital Usage and Personalization Experience

23 responses



How often do you make purchases online?

23 responses



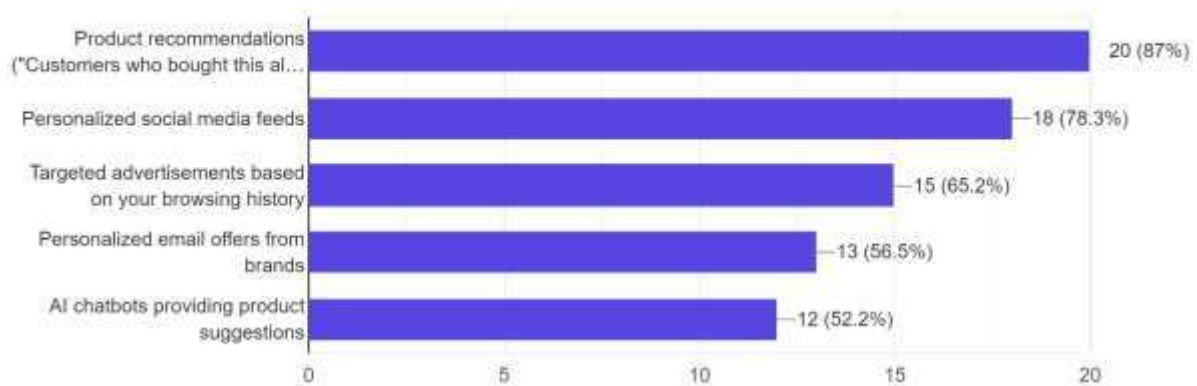
Are you aware that AI technologies are used to personalize the products, content, and advertisements you see online?

23 responses



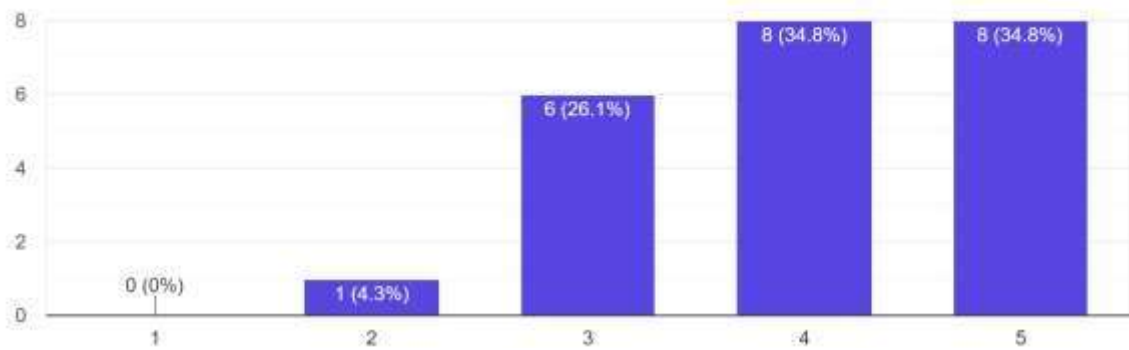
Which of the following do you recognise as examples of AI-driven personalization?

23 responses



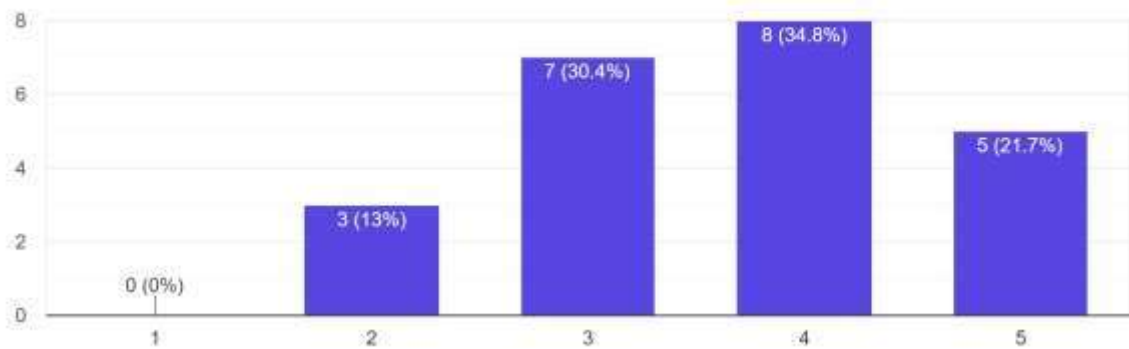
Personalized product recommendations make my online shopping experience more convenient.

23 responses



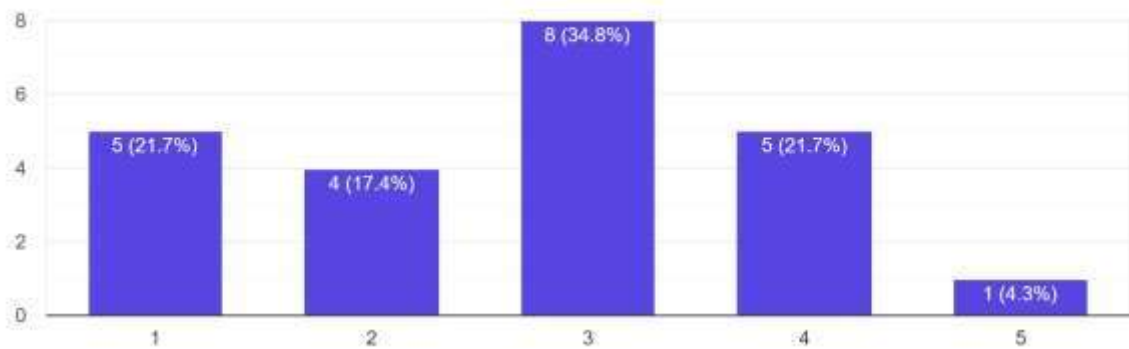
I find personalized advertisements more relevant than generic advertisements.

23 responses



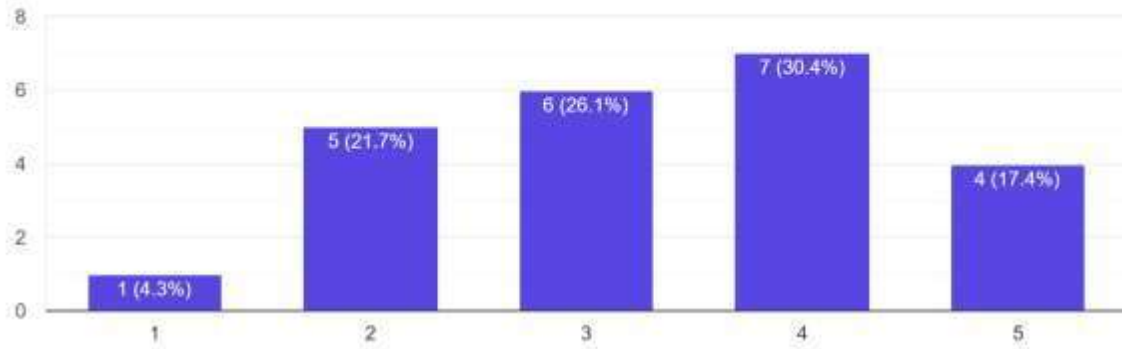
I would be willing to share more personal data in exchange for better personalized offers.

23 responses



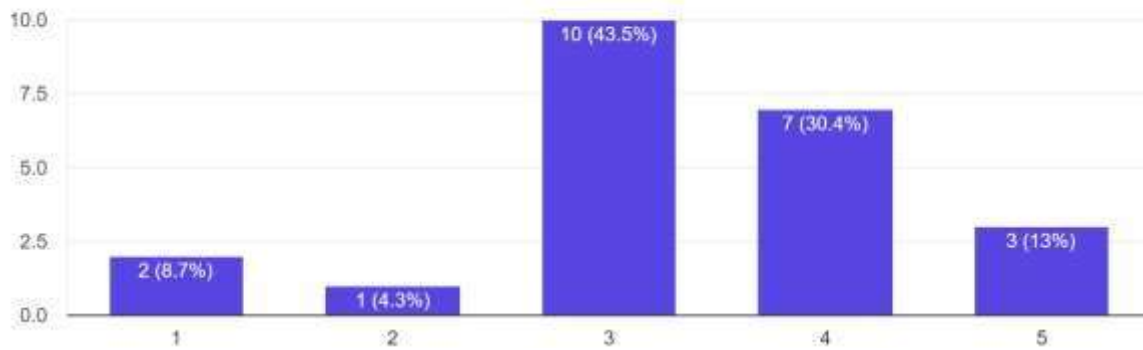
Personalized marketing has helped me discover products or services I would not have found on my own.

23 responses



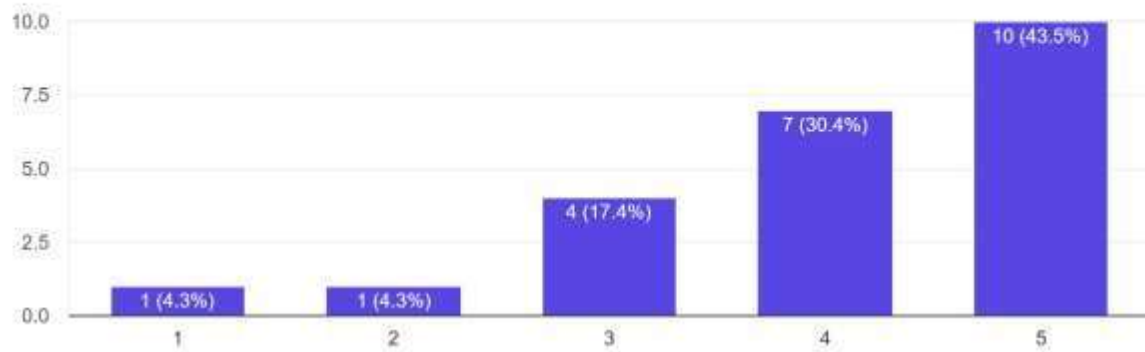
I trust the AI-driven recommendation systems of the platforms I use.

23 responses



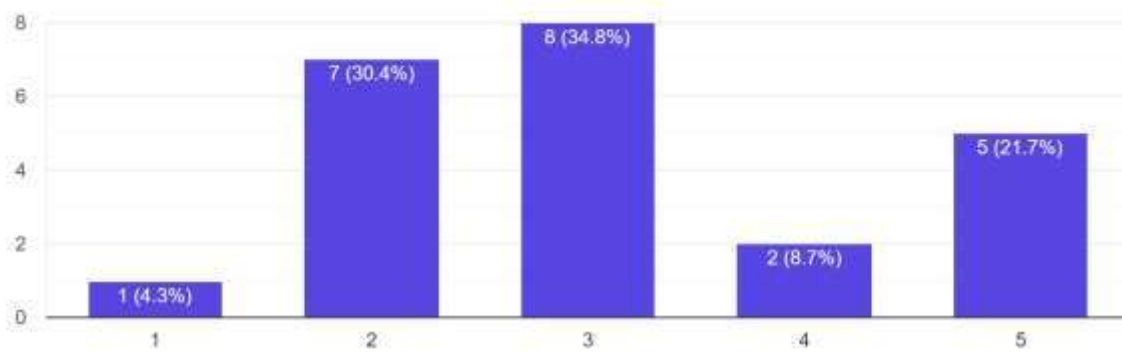
I am concerned about how companies collect and use my personal data for personalized marketing.

23 responses



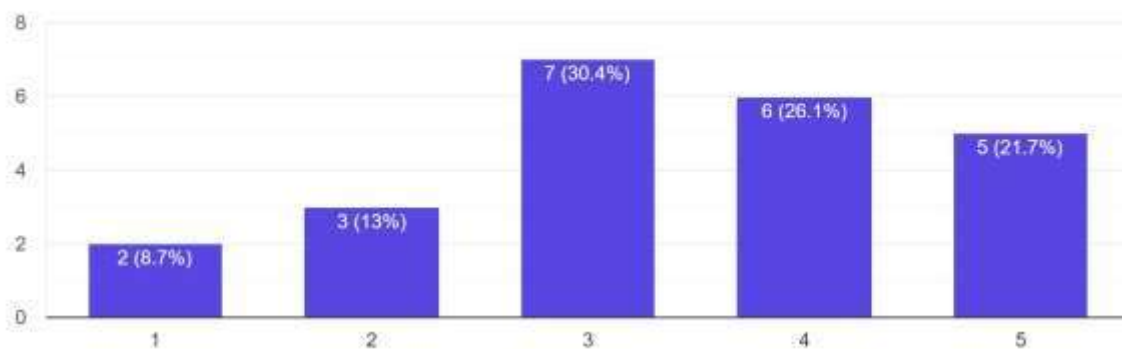
I regularly read privacy policies before using digital services or apps.

23 responses



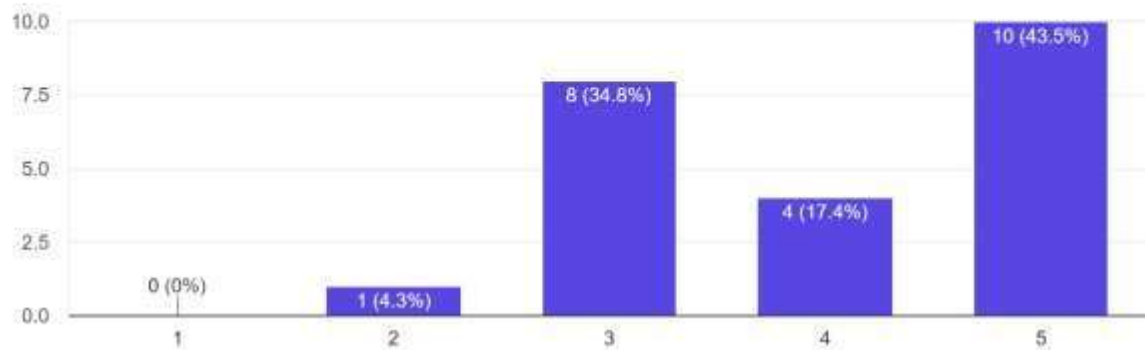
I have adjusted my privacy settings on social media or apps to limit data collection.

23 responses



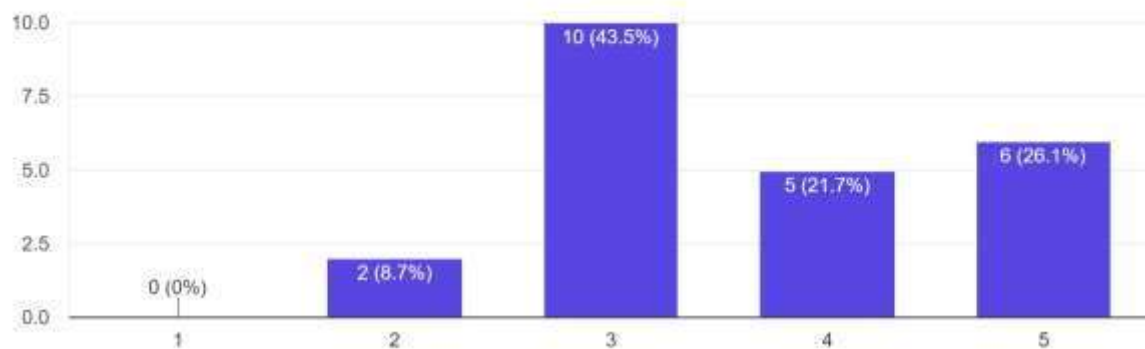
I believe companies should be legally required to obtain explicit consent before using my data for personalized marketing.

23 responses



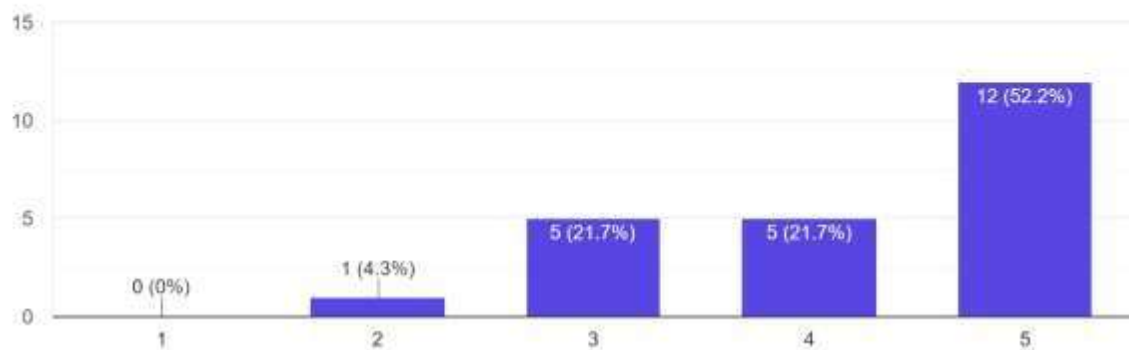
I feel that AI personalization can be used to manipulate consumer behaviour in unethical ways.

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

This study though small in size depicts similar results to those of past studies on personalized marketing. Most respondents were postgraduate students who are also regular users of such digital platforms. Most of the participants were postgraduate students who are regular users of digital platforms. Their opinions matter 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. The findings suggest an interesting bias. People do like the idea of personalisation, but they aren't exactly at ease sharing more personal information in order to make this happen. Less respondents were willing to go as deep as to offer more information, and less than half felt confident in the systems which actually created 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. An interesting point being highlighted is the "privacy paradox". 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.

LIMITATIONS

The results of the present study should be considered in the light of the limitations. Since the digital channels were the most accessible, a convenience sampling technique was used to pull the sample, which led to the majority of the respondents being younger and more techno literate. 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 minimized 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 utilizing 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.

9% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text
- Small Matches (less than 8 words)

Match Groups

-  **46 Not Cited or Quoted 9%**
Matches with neither in-text citation nor quotation marks
-  **0 Missing Quotations 0%**
Matches that are still very similar to source material
-  **0 Missing Citation 0%**
Matches that have quotation marks, but no in-text citation
-  **0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 7%  Internet sources
- 2%  Publications
- 7%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.