Personalization in Digital Marketing: How AI is Transforming Customer Experience

Submitted By
Prince Chaudhari

23042010798

MBA 2023-2025

UNDER THE GUIDANCE OF
Prof. Ms. Sukeshi Rishab

SCHOOL OF BUSINESS
GALGOTIAS UNIVERSITY

ABSTRACT

Background

The rise of Artificial Intelligence (AI) has significantly transformed the landscape of digital marketing, enabling brands to create hyper-personalized customer experiences. This shift is driven by the increasing need for businesses to engage effectively with consumers across various digital platforms.

Purpose

The purpose of this paper is to explore how AI-driven personalization enhances customer experiences in digital marketing, focusing on its impact on consumer engagement, brand loyalty, and overall marketing effectiveness.

Objective

The objective is to analyze the integration of AI technologies, such as machine learning, natural language processing, and predictive analytics, in creating tailored marketing strategies that resonate with individual customer preferences.

Design/Methodology/Approach

This study employs a comprehensive review of existing literature, case studies from various industries, and empirical data analysis to evaluate the effectiveness of AI-driven personalization strategies. It investigates the use of AI tools in optimizing customer interactions and delivering relevant content.

Findings

The findings indicate that AI-powered personalization leads to increased customer satisfaction and conversion rates. By leveraging vast amounts of data, businesses can automate customer interactions through chatbots and virtual assistants, enhancing engagement and retention. However, challenges such as data privacy concerns and ethical considerations are also highlighted.

Practical Implications

The practical implications suggest that businesses must adopt AI-driven personalization strategies to maintain a competitive edge in the digital marketing sphere. This includes addressing ethical issues and ensuring responsible AI implementation to foster trust among consumers.

Originality/Value

This paper contributes to the existing body of knowledge by providing insights into how AI can revolutionize customer interactions in digital marketing. It emphasizes the importance of personalized experiences in building strong brand loyalty and improving return on investment (ROI).

Conclusion Based on Findings

The research concludes that AI is a transformative force in digital marketing, capable of significantly enhancing customer experiences through personalized content and targeted marketing strategies. The continuous evolution of AI technologies will further shape customer-centric marketing campaigns.

Recommendations for Action

Businesses are recommended to invest in AI technologies to harness their potential for personalization while also prioritizing ethical considerations and data privacy. Continuous innovation and adaptation to consumer trends are crucial for success in an increasingly competitive digital landscape.

Keywords

Artificial Intelligence, Personalization, Digital Marketing, Customer Experience, Machine Learning, Predictive Analytics, Brand Loyalty.

Paper Type: Research Paper.

A. INTRODUCTION

A.i Background factors necessitating the project.

1. Situational Analysis

The landscape of digital marketing has undergone a significant transformation due to advancements in Artificial Intelligence (AI). With customers increasingly engaging in online shopping and spending more time on social media, businesses face a deluge of data—often referred to as big data. This data explosion presents both opportunities and challenges for marketers. While the potential for personalized customer experiences is greater than ever, many marketing firms struggle to implement effective personalization strategies. A recent survey indicates that most lack a robust approach to reach their target market effectively ((Bhaskaraputra et al., 2022).

Moreover, the integration of AI technologies such as machine learning, natural language processing (NLP), and predictive analytics has become essential for businesses aiming to optimize their marketing efforts. These technologies allow for the analysis of vast amounts of consumer data, enabling brands to understand customer behavior and preferences better (Dr. Arijit Bhattacharya & Dr. Pritee Saxema, 2023). However, challenges such as data privacy concerns and algorithmic bias complicate the implementation of these AI-driven strategies (Gungunawat et al., 2024).

2. Literature Review

The literature on AI's role in digital marketing highlights its transformative impact on **personalization** and customer experience. AI-driven personalization allows brands to deliver tailored content and recommendations, enhancing user engagement and fostering loyalty (Verma & Fatma, 2025). By leveraging algorithms that analyze consumer behaviour in real-time, businesses can create targeted advertisements and product recommendations that resonate with individual users (Verma & Fatma, 2025).

Research indicates that AI technologies significantly improve marketing efficiency by automating repetitive tasks and enabling dynamic content optimization (Rikhi, 2024). For instance, AI-powered chatbots and virtual assistants provide real-time assistance, which enhances customer interactions and satisfaction (Chaitali Bhattacharya, 2025). This level of engagement not only boosts conversion rates but also improves return on investment (ROI) for businesses (Wagobera Edgar Kedi et al., 2024). Despite the advantages, the literature also points out critical challenges associated with AI implementation in marketing. Ethical considerations, data privacy issues, and the need for continuous refinement of algorithms are paramount concerns that businesses must navigate to ensure responsible use of AI technologies in their marketing strategies (Verma & Fatma, 2025).

In summary, the integration of AI into digital marketing is reshaping how brands interact with consumers, creating opportunities for hyper-personalized experiences while also posing significant challenges that need to be addressed for successful implementation.

3. Exploratory Research on Personalization in Digital Marketing

Exploratory research in the realm of personalization marketing has been addressed through various methods, including experience surveys, case studies, and secondary data analysis. The following sections summarize relevant findings from the provided abstracts.

3.1 Case Studies and Empirical Research

AI Personalization in E-commerce:

A comprehensive case study was conducted on a prominent global retailer, focusing on the influence of advanced **AI personalization technology** on customer experience metrics. The study utilized a **mixed-methods research** approach, combining quantitative data analysis and qualitative interviews. Key findings included:

- **25% Increase in Conversion Rates**: After implementing AI personalization engines, the retailer observed a significant rise in the percentage of customers completing their purchases.
- **17% Growth in Average Order Value**: Personalized recommendations led to customers spending more per transaction, indicating the effectiveness of tailored shopping experiences.
- **12% Increase in Customer Lifetime Value (CLV)**: Enhanced personalization resulted in longer customer engagement and loyalty.
- **22% Improvement in Satisfaction Scores**: Customers expressed appreciation for personalized experiences, which included quick product discovery and emotionally resonant suggestions, particularly in fashion (Ashok Choppadandi, 2023).

AI in Customer Relationship Management (CRM):

The integration of AI into **Customer Relationship Management (CRM)** systems was explored in a study that emphasized its transformative impact on business-customer interactions. Key benefits identified included:

- **Predictive Insights**: AI-driven CRMs analyzed vast amounts of customer data to predict needs and personalize marketing efforts effectively.
- **Improved Engagement**: AI chatbots handled routine inquiries, allowing human agents to focus on complex issues, thereby enhancing overall customer satisfaction (Boppana, 2024).

AI-Powered Marketing Campaigns:

A review of various digital marketing campaigns illustrated how AI-driven personalization enhances campaign effectiveness. Notable aspects included:

- **Dynamic Content Optimization**: AI algorithms analyzed consumer behavior to deliver relevant content and targeted advertisements in real-time, improving conversion rates and return on investment (ROI).
- **Automated Interactions**: Tools such as chatbots and virtual assistants facilitated seamless customer interactions, contributing to a more engaging user experience (Verma & Fatma, 2025).

Conclusion:

These case studies collectively demonstrate the significant role of AI in personalizing digital marketing strategies across various sectors. By leveraging advanced technologies like machine learning and predictive analytics, businesses can enhance customer experiences, drive engagement, and ultimately achieve better sales outcomes. The transformative potential of AI in this context underscores its importance for brands aiming to maintain a competitive edge in today's digital landscape.

3.2 Experience Surveys and Consumer Insights

Customer Experience Surveys:

Conducting surveys from 50 – 100 respondents can provide valuable insights into customer preferences and experiences across different channels. Research indicates that customers prefer consistent experiences between online and offline channels, which can be explored through qualitative methods

Understanding Customer Preferences:

A study focusing on effective personalization in digital Marketing strategies highlighted the need for accessibility and inclusivity in marketing approaches. By analyzing existing literature and empirical research, it emphasized that catering to diverse customer demographics enhances customer experience. This exploration into consumer behavior further supports the development of omni-channel marketing strategies that prioritize customer satisfaction (Redimano et al., 2024).

3.3 Key Findings from Secondary sources

Artificial Intelligence (AI) is significantly reshaping digital marketing, particularly in the realm of **personalization**. Here are the key findings synthesized from the provided abstracts:

1. Enhanced Customer Experience through Personalization:

AI-driven personalization is revolutionizing customer experiences by enabling businesses to tailor content and interactions based on individual preferences. This includes the use of recommendation engines, dynamic content delivery, and targeted advertisements that cater to specific consumer behaviors and needs. By analyzing vast amounts of big data and employing techniques such as machine learning and predictive analytics, marketers can create hyper-personalized experiences that lead to increased customer satisfaction and engagement (Babadoğan, 2024), (Gungunawat et al., 2024).

2. Impact on Consumer Behavior:

The integration of AI in digital marketing has a profound effect on consumer behavior, influencing aspects such as decision-making processes, brand loyalty, and purchase intentions. AI's ability to analyze data allows for more accurate segmentation, ensuring that marketing messages resonate with individual consumers. This level of personalization fosters a sense of exclusivity, making consumers feel valued and understood by brands (Babadoğan, 2024), (Verma & Fatma, 2025).

3. Increased Engagement and Conversion Rates:

AI personalization strategies contribute to improved engagement levels, higher conversion rates, and enhanced return on investment (ROI) for businesses. By automating customer interactions through tools like chatbots and virtual assistants, companies can maintain continuous engagement with customers, leading to better retention and loyalty (Duong Hoai Lan, 2024), (Duong Hoai Lan, 2024). The automation of marketing tactics also allows for real-time adjustments based on user behavior, optimizing the effectiveness of campaigns (Chaitali Bhattacharya, 2025).

4. Ethical Considerations and Challenges:

Despite the benefits, the use of AI in digital marketing raises ethical concerns, particularly regarding data privacy, algorithmic bias, and the potential for negative consumer experiences due to poorly implemented AI systems. It is crucial for businesses to address these challenges to ensure responsible AI implementation while maintaining consumer trust (Babadoğan, 2024), (Duong Hoai Lan, 2024).

5. Future Trends in AI-Driven Personalization:

The future of AI in digital marketing is expected to focus on adaptive AI systems that continuously learn and evolve based on consumer interactions. This adaptability will enhance the effectiveness of personalized marketing strategies, allowing brands to stay competitive in an ever-evolving digital landscape (Gungunawat et al., 2024), (Verma & Fatma, 2025). Additionally, there is a growing emphasis on optimizing marketing campaigns for emerging technologies such as voice and visual searches, further enhancing content visibility and accessibility (Chaitali Bhattacharya, 2025).

Conclusion:

AI is fundamentally transforming personalization in digital marketing by enhancing customer experiences, influencing consumer behavior, increasing engagement, and presenting ethical challenges that must be navigated carefully. As businesses continue to integrate AI technologies into their strategies, the focus will remain on creating meaningful and personalized interactions that foster strong customer relationships.

A.ii Further Explanation if required of Research Topic

Personalization In Digital Marketing: How Ai Is Transforming Customer Experience:-

Definition of Personalization in Digital Marketing:

Personalization in digital marketing refers to the practice of tailoring marketing messages and content to individual consumers based on their specific preferences, behaviors, and interactions with a brand. This approach aims to create a more engaging and relevant experience for customers, ultimately enhancing their satisfaction and loyalty.

The Role of AI in Personalization:

Artificial Intelligence (AI) plays a crucial role in transforming customer experiences through personalization by leveraging advanced technologies such as machine learning, natural language processing (NLP), and predictive analytics. These technologies enable marketers to analyze vast amounts of consumer data, allowing for the delivery of highly relevant content and targeted advertisements.

Key Components of AI-Driven Personalization

1. **Data Analysis**: AI algorithms analyze consumer behavior, preferences, and purchasing patterns. This enables brands to understand their customers better and deliver personalized recommendations in real time (Babadoğan, 2024), (Verma & Fatma, 2025).

2. **Recommendation Systems**: AI-powered **recommendation engines** suggest products or services based on individual user data, significantly enhancing the likelihood of conversion and customer satisfaction (Babadoğan, 2024).

3. **Dynamic Content Delivery**: By utilizing AI, marketers can optimize content dynamically, ensuring that marketing messages resonate with users based on their browsing history, demographics, and psychographics (Verma & Fatma, 2025).

4. **Chatbots and Virtual Assistants**: AI-driven chatbots provide real-time assistance, enhancing customer interaction and engagement. These tools can personalize the customer journey by addressing specific inquiries and providing tailored recommendations (Bhuiyan, 2024).

Benefits of AI-Driven Personalization

- **Enhanced Customer Engagement**: Personalized experiences foster a deeper connection between consumers and brands, leading to increased interaction and loyalty (Smita Singh, 2025), (Verma & Fatma, 2025).
- **Improved Conversion Rates**: By delivering relevant content that aligns with customer preferences, businesses can achieve higher conversion rates (Babadoğan, 2024), (Gungunawat et al., 2024).
- **Better Return on Investment (ROI)**: AI-driven strategies contribute to more efficient marketing efforts, resulting in improved ROI as businesses can allocate resources more effectively (Duong Hoai Lan, 2024), (Wagobera Edgar Kedi et al., 2024).

Challenges and Ethical Considerations

While the integration of AI in digital marketing offers significant benefits, it also presents challenges:

- **Data Privacy Concerns**: The collection and use of personal data raise ethical questions about consumer privacy and consent (Duong Hoai Lan, 2024), (Verma & Fatma, 2025).
- **Algorithmic Bias**: There is a risk that AI systems may perpetuate biases present in the data they are trained on, leading to unfair or inaccurate targeting of certain consumer groups (Babadoğan, 2024).
- **Over-Reliance on Personalization**: Excessive personalization can lead to "filter bubbles," where consumers are only exposed to a narrow range of products or content, potentially stifling creativity and innovation (Babadoğan, 2024).

In conclusion, AI is fundamentally reshaping digital marketing through personalized customer experiences. By harnessing the power of data analytics and machine learning, businesses can create tailored marketing strategies that significantly enhance customer engagement and satisfaction. However, it is essential for organizations to navigate the ethical implications and challenges that arise from this technology to ensure responsible implementation in their marketing efforts.

Fig: How AI boost customer experience

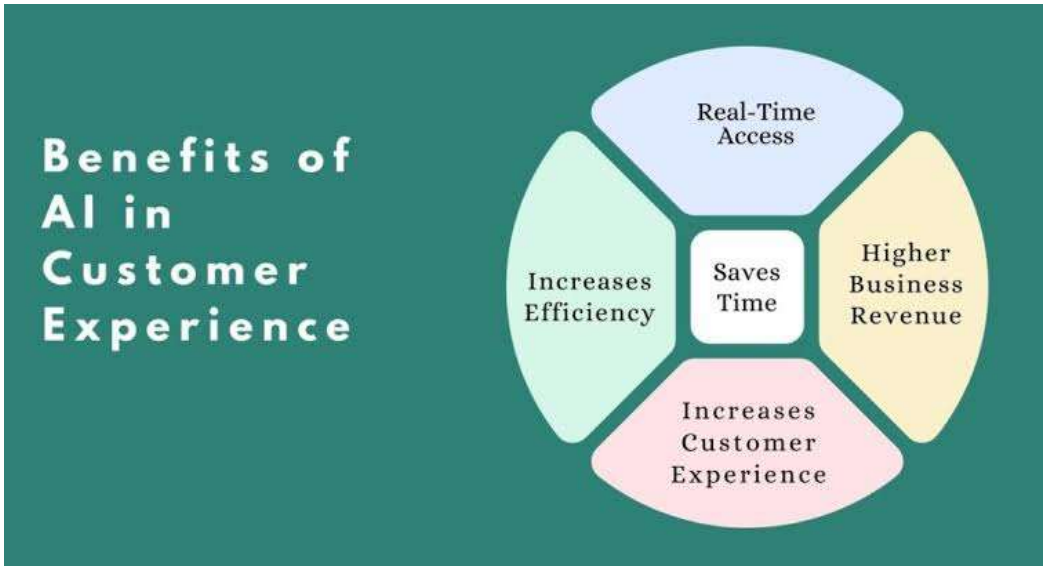


Fig: Benefits of AI in customer experience

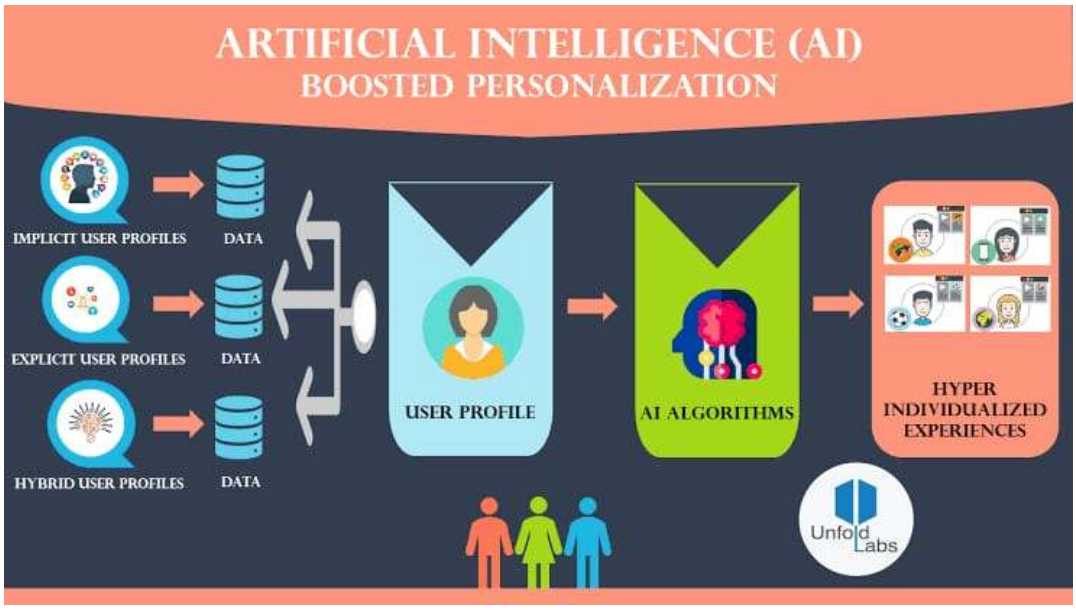


Fig: Artificial Intelligence Boosted Personlaization

A.iii Research Questions and Hypotheses

1. General Research Questions

Q1) How can businesses strike a balance between AI-driven personalization and customer privacy concerns?

Q2) What ethical considerations should managers prioritize when implementing AI personalization strategies?

Q3) In what ways can over-reliance on algorithms lead to the misinterpretation of customer behavior, and how can this be mitigated?

Q4) How can companies ensure transparency and gain customer consent while using AI for personalization?

Q5) What strategies can managers adopt to prevent AI-driven personalization from becoming intrusive or alienating to certain consumer segments?

2. Specific Research Questions (Hypotheses)

These explore targeted aspects of user behavior, attitudes, and experiences with AI personalization:

Q4 – Which of the following AI-driven personalization techniques have you experienced?

Identifies specific AI functionalities encountered by users.

Q5 – Do you feel that AI-driven personalization improves your digital experience?

Directly measures perceived value of personalization.

Q6– In your opinion, how relevant are the personalized recommendations or ads you receive online?

Gauges accuracy and effectiveness of AI-generated content.

Q7– Do you find personalized content more engaging than generic content?

Measures user preference for tailored content.

Q8 – How important is personalization when choosing a brand or service online?

Evaluates the influence of AI personalization in decision-making.

Q9– Has a personalized experience ever influenced your buying decision?

Examines behavioral impact of personalization.

Q10– Are you concerned about your data being used for personalization?

Measures privacy concerns related to AI.

Q11– Do you feel that brands should be transparent about how they use AI and your data?

Tests opinion on corporate responsibility and ethics.

Q12 – What would make you more comfortable with AI personalization?

Explores trust-building mechanisms.

Q14 – Would you prefer more AI personalization if it meant a better and faster experience?

Assesses willingness to trade privacy for convenience.

3. Expected Relationships between Variables (with Type of Relationship)

These are logical hypotheses about how responses to different questions might relate:

- H1: Greater familiarity with AI (Q2, Q3) is likely to result in more positive perceptions of AI's role in improving digital experiences (Q5, Q13).
- H2: Higher satisfaction with personalization (Q5, Q6, Q7) is expected to increase the likelihood of AI influencing buying behavior (Q9).
- H3: Positive perception of personalization (Q5) will lead to a higher preference for AI in digital services (Q14).
- H4: Concerns about data privacy (Q10) and a demand for transparency (Q11) might correlate with what conditions (Q12) are necessary for users to feel comfortable.
- H5: Users exposed to multiple AI personalization techniques (Q4) are more likely to value and seek AI-driven services (Q7, Q8, Q14).

4. Expanded Logic Connecting General Research Questions with Hypotheses

Here's how the general and specific questions connect:

Q1–Q3 (General Use and Awareness) provide context for interpreting responses to Q4–Q9 (Experiential and Attitudinal questions).

For example, someone who regularly shops online (Q1) and is familiar with AI (Q2) is more likely to recognize and assess the effectiveness of personalization (Q5–Q9).

Q10–Q12 (Privacy and Transparency) are influenced by how much users know about AI and their level of exposure (Q2, Q3, Q4). If users are aware of AI and have experienced it positively, they may still have reservations (Q10), which can be mitigated by the factors listed in Q12.

Q13–Q14 (Future Outlook and Preferences) are shaped by both past experiences (Q4–Q9) and ethical concerns (Q10–Q12). For example, a user who feels AI improves their experience (Q5) but is concerned about data use (Q10) might express conditional preference (Q14) based on solutions in Q12.

A.iv Research objectives

1. Derived from the research questions or hypotheses

- To assess the extent of consumer engagement with digital platforms that utilize AI-driven personalization.
- To evaluate the level of consumer awareness and understanding of Artificial Intelligence (AI) and its role in digital personalization.
- To identify which AI-powered personalization techniques are most commonly experienced by digital users.
- To examine consumer perceptions of the effectiveness and value of AI-driven personalization in enhancing digital experiences.
- To analyze the relevance and engagement levels of personalized content compared to generic content.
- To determine the influence of AI-driven personalized experiences on consumer decision-making and purchase behavior.
- To investigate consumer concerns regarding data privacy in the context of AI personalization.
- To explore consumer expectations regarding transparency and control over AI and data usage by digital brands.
- To identify key factors that can enhance user trust and comfort with AI-driven personalization.
- To explore consumer preferences about the future role of AI in shaping their digital experiences.

2. Explain the Purpose of the Research in Measurable Terms

The purpose of this research is to measure and evaluate:

- Quantify how many consumers are familiar with AI and aware of its role in digital personalization.
- Measure the frequency and types of AI-driven personalization techniques consumers encounter across digital platforms.
- Assess the perceived value of AI personalization on a Likert scale (e.g., strongly agree to strongly disagree).
- Evaluate the relationship between personalization relevance and its influence on engagement and buying behavior using statistical methods (e.g., chi-square tests, correlation analysis).
- Determine the percentage of consumers who feel concerned about data use and desire more control or transparency in AI personalization.
- Identify which trust-building factors (e.g., privacy policies, opt-out options) are most important to users through response frequency analysis.
- Predict how consumers expect AI to shape their digital experiences in the near future by analyzing attitude trends.

3. Define Standards of What the Research Should Accomplish

The research should accomplish the following standards of performance:

1. **Clarity and Insight**:
    - Provide a clear understanding of how AI is currently being used in digital marketing to personalize customer experiences.
2. **Consumer-Centric Analysis**:
    - Capture real user perceptions, expectations, and behaviors regarding AI-driven personalization.

3. **Comparative Value**:
    - Compare the effectiveness of various AI personalization techniques from the consumer perspective.
4. **Data-Driven Evidence**:
    - Use survey data to support or challenge existing assumptions about AI and personalization in marketing.
5. **Practical Implications**:
    - Offer actionable insights for marketers, brands, and digital platforms on leveraging AI ethically and effectively.
6. **Address Ethical Considerations**:
    - Highlight privacy, transparency, and user control as critical factors in the success of AI in marketing.
7. **Forward-Looking Perspective**:
    - Anticipate future trends and consumer readiness for deeper AI integration in digital marketing strategies.

4. How the Research Will Aid Management Decision-Making

Improve Marketing Effectiveness:

- Management will gain insights into which AI-powered personalization techniques are most impactful, enabling better resource allocation toward high-performing strategies.

Enhance Customer Experience:

- By understanding what customers value and expect from personalization, companies can optimize user journeys and increase satisfaction and loyalty.

Develop Targeted Campaigns:

- The research will identify which types of consumers respond best to specific AI tools, allowing marketers to tailor campaigns more precisely to different segments.

Mitigate Privacy Risks:

- Understanding consumer concerns about data usage will help management design transparent and ethical data practices, improving brand trust and compliance with regulations.

Strategic Technology Investment:

- Insights into future expectations will inform decisions on where to invest in AI tools and infrastructure to remain competitive.

Brand Positioning: Companies can position themselves as tech-forward, ethical, and customer-centric by aligning marketing messages with findings on consumer comfort and preferences regarding AI.

Support Product Development:

- Feedback from the research will help in designing or refining AI-driven features and services that align with customer needs

B. RESEARCH DESIGN AND METHODOLOGY

B.i Type(s) of research design(s) used and why chosen.

1. Exploratory Research Design:

Purpose:
To gain an initial understanding of how AI technologies—such as machine learning, predictive analytics, and natural language processing—are being integrated into marketing strategies and how they contribute to personalization.

Why Chosen:

- The topic of AI in personalization is relatively new and evolving, requiring foundational insight into key themes, tools, and terminologies.
- The literature review and industry case studies in this research serve to explore trends, uncover gaps, and generate hypotheses for empirical testing.
- It supports the identification of relevant variables (e.g., personalization techniques, customer engagement, trust).

2. Descriptive Research Design:

Purpose:
To quantify and describe customer perceptions, behaviors, and attitudes toward AI-driven personalization in digital marketing.

Why Chosen:

- The survey questionnaire was used to gather data on consumer awareness, usage, satisfaction, trust, and privacy concerns related to AI personalization.
- Descriptive design helps in profiling the target audience and understanding how frequently or effectively AI personalization is encountered.
- It supports statistical summarization of observed phenomena, such as the extent to which AI personalization affects customer satisfaction or loyalty.

3. Causal (Explanatory) Research Design:

Purpose:
To determine whether a cause-and-effect relationship exists between AI-driven personalization and customer experience outcomes like engagement, satisfaction, and brand loyalty.

Why Chosen:

- The research includes empirical data analysis and hypothesis testing (e.g., whether personalization directly influences customer satisfaction or purchasing decisions).
- The causal design is essential to validate if AI personalization is not just correlated with, but actively contributes to improved customer experiences and marketing effectiveness.
- Enables the use of statistical tools like regression analysis to test the strength and direction of relationships between variables.

B.ii Data collection method/s and forms

1. Exploratory Research Phase

Purpose: To gain foundational understanding, define constructs, and identify key themes related to personalization marketing.

- **Data Collection Medium (Internet and Self-Administered)**:

  Literature review and case studies information conducted through online academic databases, academic reports and journals articles. This will provide valuable insights into existing knowledge personalization marketing.

- **Logic of Choosing Internet and Self-Administered Methods:**
  1. **Cost-Effectiveness:**

     Literature review and online resources are relatively inexpensive ways to gather initial data.
  2. **Accessibility:**

     A vast amount of relevant information is readily available online.
  3. **Scalability:**

     Self-administered methods can be used to gather data from a wider audience without the need for extensive interviewer resources (unlike phone interviews).

2. Descriptive Research Phase

Purpose: To describe the current level of awareness, preferences, behaviours, and challenges among consumers and marketers.

- **Data Collection Medium:**

  Self-Administered Online Surveys: Online surveys distributed through email or relevant online platforms will be the primary method for gathering data from a wider sample of consumers.

QUESTIONNAIRE: "Personalization In Digital Marketing: How Ai Is Transforming Customer Experience"

1- Do you regularly use digital platforms for shopping, content consumption, or services?
   - Yes
   - No

2- How familiar are you with the term "Artificial Intelligence (AI)"?
   - very familiar
   - Somewhat familiar
   - Heard of it but not sure what it means
   - Not familiar at all

3- Are you aware that AI is used to personalize your online experience (e.g., product recommendations, ads, emails)?
- Yes
- No

4- Which of the following AI-driven personalization techniques have you experienced? (Select all that apply)
- Product recommendations
- Personalized email offers
- Chatbots for support
- Targeted advertisements
- Dynamic website content
- Voice assistants (e.g., Alexa, Siri)

5- Do you feel that AI-driven personalization improves your digital experience?
- Strongly agree
- Agree Neutral
- Disagree
- Strongly Disagree

6- In your opinion, how relevant are the personalized recommendations or ads you receive online?
- Very relevant
- Somewhat relevant
- Not very relevant
- Not at all relevant

7- Do you find personalized content more engaging than generic content?
- Yes
- No
- Sometimes

8- How important is personalization when choosing a brand or service online?
- Extremely important
- Very important
- Moderately important
- Slightly important
- Not important

9- Has a personalized experience ever influenced your buying decision?
- Yes, many times
- Occasionally
- Rarely
- Never

10- Are you concerned about your data being used for personalization?
- Yes
- No
- Not Sure

11- Do you feel that brands should be transparent about how they use AI and your data?

- Strongly Agree
- Agree
- Disagree
- Strong Disagree
- Neutral

12- What would make you more comfortable with AI personalization? (Select all that apply)

- Clear privacy policies
- Ability to control personalization settings
- Transparency about data use
- Options to opt out
- Better security assurances

13- In the future, how do you see AI shaping your digital experience?

- Very positively
- Positively
- Neutral
- Negatively
- Very negatively

14- Would you prefer more AI personalization if it meant a better and faster experience?
Yes
No
Maybe

15- What suggestions do you have for improving AI-based personalization?

Kinds of Scale Used:

The questionnaire in this study uses a combination of **nominal, ordinal, interval, and multiple-response scales**. Nominal scales classify respondents by occupation, technology preferences, and brand engagement factors. Ordinal scales, including **Likert-type scale** questions, measure familiarity, satisfaction, and loyalty levels. An interval scale is used to rate the importance of data integration on a 1–5 scale. Multiple-response questions capture shopping preferences and integration challenges. This mix of scales supports descriptive and inferential statistical analysis, aligning with the study's goal to evaluate the impact of personalization in digital marketing.

B.iii Sampling design and plan

1. Target Population:

The target population for this study includes individuals aged 18 to 50 years who are either consumers, marketing professionals, business owners, data analysts, nurse, data engineer or students.

This age group represents the digitally active segment that engages across online and offline platforms and is likely to have relevant insights on personalization in digital marketing.

2. Sampling Frame:

The sampling frame consists of people accessible through online platforms such as LinkedIn, WhatsApp, and email who fall within the age bracket of 18 to 50 years.

The researcher focused on urban and semi-urban digital users who are familiar with modern marketing practices and e-commerce trends.

3. Sample Units Used:

The primary sampling units are individual respondent**s** from the target population. These units include students, marketing professionals, business owners, nurse, data engineer and consumers who responded to the questionnaire. Sampling method

4. Convenience Sampling:

Convenience sampling is a non-probability sampling method where you recruit participants who are readily available and easy to access. Easy and quick to implement. You can leverage existing networks of classmates, friends, or online groups frequented by your target audience.

Cost-effective: Requires minimal resources to reach potential participants.

5. Sample Size:

A total of **28 respondents** were surveyed. The sample was selected to ensure a diverse representation of age (18–50 years), occupation, and familiarity with personalization in digital marketing, which is considered sufficient for preliminary insights in a master's thesis project.

6. Response Rate:

Out of the 50 individuals approached, **28 completed the survey**, resulting in a **response rate of 56%.**

The high response rate was supported by follow-up reminders and the concise, engaging structure of the questionnaire.

B.iv. Fieldwork

1. How and where the fieldwork was conducted:

The data were collected during a two-week window in April 2025 using an online self-administered survey created in Google Forms. The survey link was distributed through professional networks on LinkedIn, WhatsApp groups of MBA cohorts, and targeted e-mail invitations to marketing professionals and small-business owners. A QR code to the same link was also share to respondents. Because the questionnaire was hosted entirely online, respondents could participate from any location; nevertheless, the recruitment channels were chosen to reach urban and semi-urban residents in India who actively shop both online and in physical stores. Daily monitoring of response counts and completion times ensured data quality, and gentle reminders were sent after four and eight days to non-responders, helping achieve the final sample of 28 usable cases.

2. Pre-testing phase and its contribution:

Before launching the main survey, the instrument underwent a pre-test with seven participants—two marketing professionals, two post graduate students management students, one business owner, and two ordinary consumers—selected to mirror the eventual sample's diversity. Each pre-test session combined completion of the questionnaire with brief cognitive-interview probes ("Tell me what you think this question is asking," "Was any wording unclear?"). Feedback revealed three areas for refinement:

- **Clarity of terminology** – Terms such as "data synchronization" and "cloud IT engineer" were simplified or briefly defined in parentheses.
- **Scale balance** – Respondents found the 5 → 1 satisfaction scale (Q5) counter-intuitive, so the anchors were reversed to the more familiar 1 → 5 progression.
- **Survey flow** – Some questions were meant only for business owners (like asking about problems they face with online and offline data). So, skip logic was used — this means that only the people who selected "Business Owner" would see those specific questions. Others would skip them automatically, so they don't have to answer questions that don't apply to them. This helped make the survey smoother and more personalized for each respondent.

  Additionally, for people whose job wasn't listed, there was an "Other" option where they could write their profession manually, such as "HR" or "Cloud IT Engineer." This allowed everyone to answer accurately and comfortably.

Minor wording edits and the scaling change reduced average completion time from 7 minutes in the pilot to just under 5 minutes in the main study and eliminated all instances of missing data in mandatory fields. Consequently, the pre-test enhanced both respondent comprehension and overall data quality, increasing confidence in the reliability of the measures used in the main fieldwork.

B.v Data analysis and Interpretation

Describe the data preparation and processing procedure

1. Data Preparation:

- **Data Download:**

  Upon closing the survey, the data was downloaded from Google Forms and saved to files or further analysis.

2. Data Cleaning:

- **Missing Values:**

  Identified and addressed missing values (where respondents skipped questions). This involved:

a. Removing rows with excessive missing data.
b. Leaving them in the analysis if the number is minimal and unlikely to significantly impact results.

3. Data Processing:

- **Data Validation:** Checked for any errors or inconsistencies in the data after cleaning and transformation. This involved:

  a. Looking for outliers or extreme values that could skew the results.
  b. Verifying that the coding of categorical variables is accurate and consistent.

General statistical methods used in the data analysis:

This analysis would primarily rely on descriptive statistics and data visualization techniques to understand the integration of personalization in digital marketing for better customer insights. Here's a breakdown of the methods:

1. Descriptive Statistics:

- **Frequencies and Percentages:**

  This will reveal how many respondents selected each answer choice for the multiple-choice question. This will show the prevalence of each perceived obstacle.

2. Data Visualization:

- **Bar Charts:**

These are ideal for visualizing the frequencies of different answer choices for the multiple-choice question. Bars can be labelled with the answer choices and their corresponding frequencies or percentages.

- **Pie Charts:**

  While less informative than bar charts for multiple categories, a pie chart could be used to show the overall distribution.

Reasoning underlying the choice of statistical procedures:

1. Descriptive statistics:

This is a natural first step to get a basic understanding of the data. It reveals how people responded to the survey questions. Frequencies and percentages are crucial for analysing the multiple-choices question.

2. Data visualization:

- **Bar charts:**

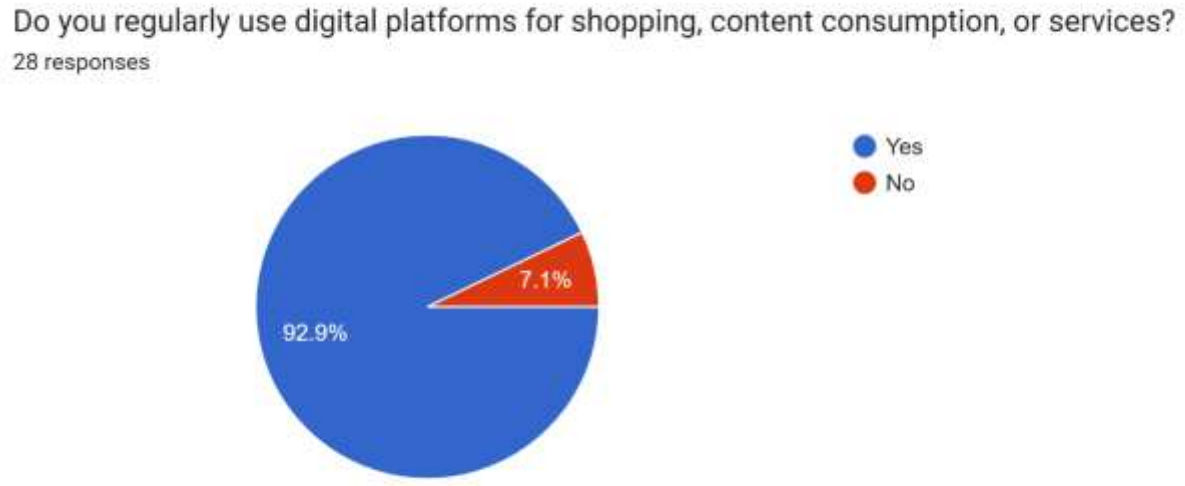
  Provide a clear and easy-to-understand visual representation of the frequencies for the multiple-choice question.

- **Pie charts:** (used cautiously) can offer a quick overview of the overall distribution.

These methods are chosen because they are suitable for analysing survey data with categorical and numerical answer scales. They help present the findings in a way that is easy to interpret for both technical and non-technical audiences.

Data analysis and Interpretation

1- Do you regularly use digital platforms for shopping, content consumption, or services



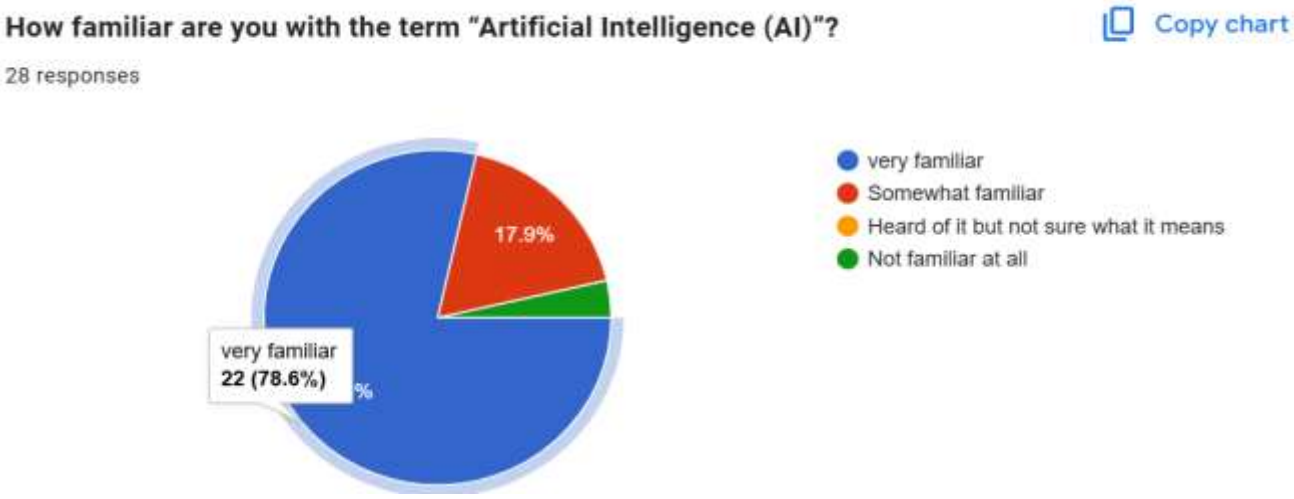
Interpretation:

- **Yes**: 92.9% (26 out of 28 respondents)
- **No**: 7.1% (2 out of 28 respondents)

Research Insight:

The overwhelming majority of respondents (approximately 93%) confirmed that they regularly use digital platforms. This indicates a high level of digital engagement among the participants and validates the relevance of the research topic — AI-driven personalization in digital marketing. Only a small fraction (7%) do not use digital platforms regularly, which may represent exceptions or digitally less-active individuals.

2- How familiar are you with the term "Artificial Intelligence (AI)"?



Interpretation:

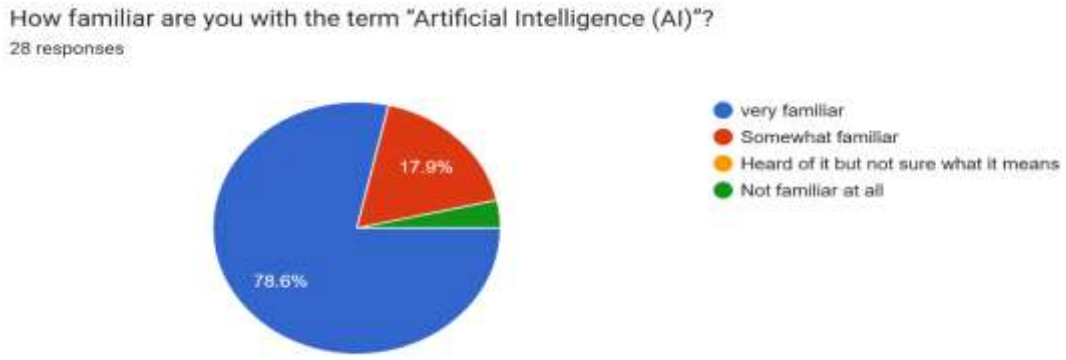
- **Very familiar**: 78.6% (22 respondents)
- **Somewhat familiar**: 17.9% (5 respondents)
- **Heard of it but not sure what it means**: 0%

- **Not familiar at all**: 3.6% (1 respondent)

Research Insight:

A **large majority (nearly 79%)** of respondents are **very familiar with AI**, and another **18% are somewhat familiar**. This indicates a strong awareness and understanding of AI among the surveyed population. Only **one respondent** lacks familiarity with the term.

3- Are you aware that AI is used to personalize your online experience (e.g., product recommendations, ads, emails)?



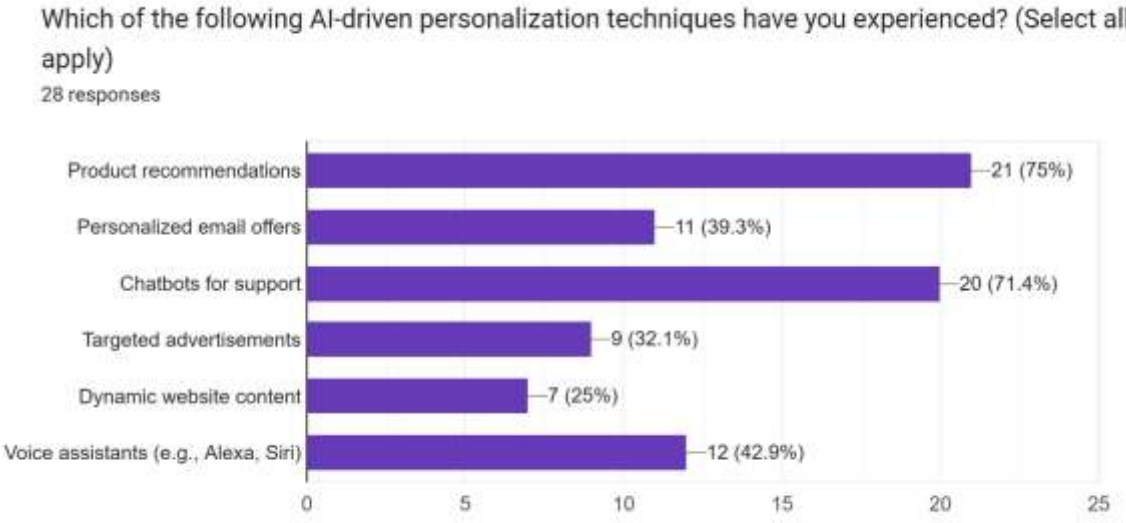
Interpretation:

- **Yes**: 100% (28 out of 28 respondents)
- **No**: 0%

Research Insight:

All **28 respondents (100%)** are **aware** that AI is used for personalization in online experiences such as recommendations, targeted ads, and emails.

4- Which of the following AI-driven personalization techniques have you experienced? (Select all that apply)



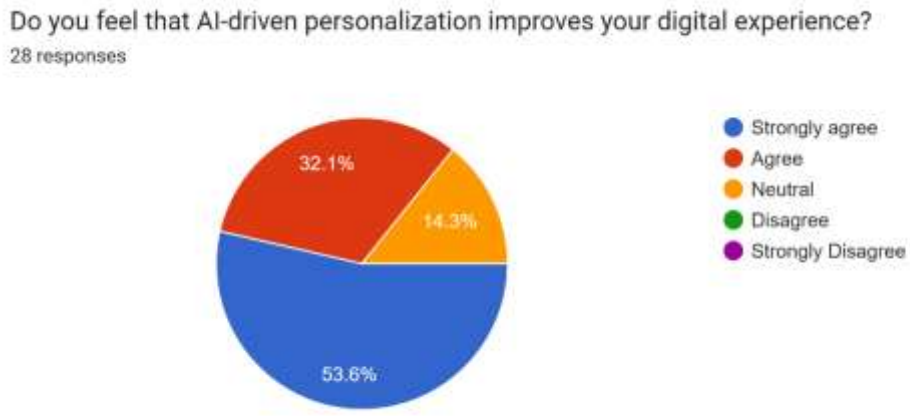
Interpretation:

- **Most Experienced Techniques:**
  - **Product recommendations:** 21 respondents (75%)
  - **Chatbots for support:** 20 respondents (71.4%)
- **Moderately Experienced:**
  - **Voice assistants (e.g., Alexa, Siri):** 12 respondents (42.9%)
  - **Personalized email offers:** 11 respondents (39.3%)
  - **Targeted advertisements:** 9 respondents (32.1%)
- **Least Experienced:**
  - **Dynamic website content:** 7 respondents (25%)

Research Insight:

The chart indicates that the majority of participants have encountered AI through product recommendations and chatbots, suggesting these are the most widely used personalization techniques. In contrast, dynamic website content and targeted ads are less commonly recognized, potentially indicating either less use or lower user awareness of these features. Voice assistants and personalized emails fall in the middle range, reflecting moderate adoption or visibility**.**

5- Do you feel that AI-driven personalization improves your digital experience?



Interpretation:

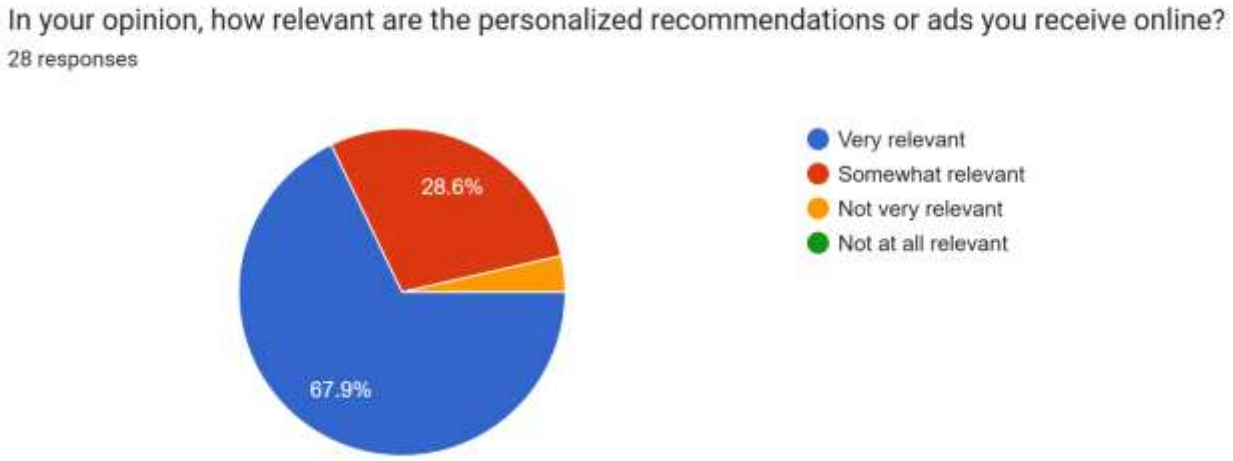
- **Strongly agree:** 53.6%
- **Agree:** 32.1%
- **Neutral:** 14.3%
- **Disagree / Strongly disagree:** 0%

Research Insight:

The majority of respondents (85.7%) have a **positive perception** of AI-driven personalization, with over half (53.6%) *strongly agreeing* that it improves their digital experience. A smaller portion (14.3%) remains *neutral*, while **no**

respondents expressed disagreement, indicating a strong overall endorsement of AI personalization's impact on digital engagement.

6- In your opinion, how relevant are the personalized recommendations or ads you receive online?



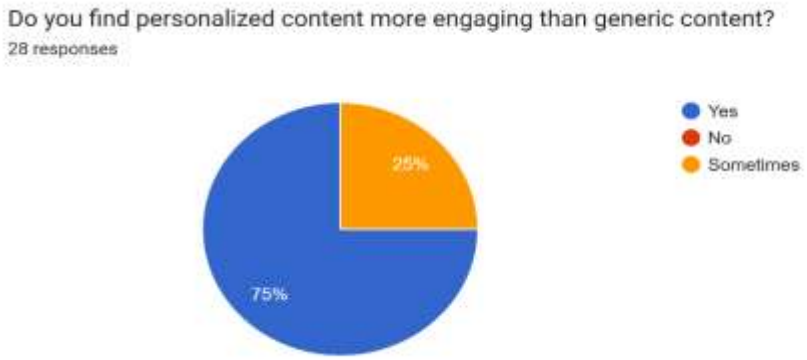
Interpretation:

- **Very relevant:** 67.9%
- **Somewhat relevant:** 28.6%
- **Not very relevant:** 3.6%
- **Not at all relevant:** 0%

Research Insight:

A strong majority (67.9%) of respondents find personalized recommendations or ads **very relevant**, and an additional 28.6% find them **somewhat relevant**. Only a small fraction (3.6%) see them as **not very relevant**, and no one marked them as *not at all relevant*. This indicates that most users perceive AI-driven personalization in advertising as **accurate and valuable** in matching their interests.

7- Do you find personalized content more engaging than generic content?



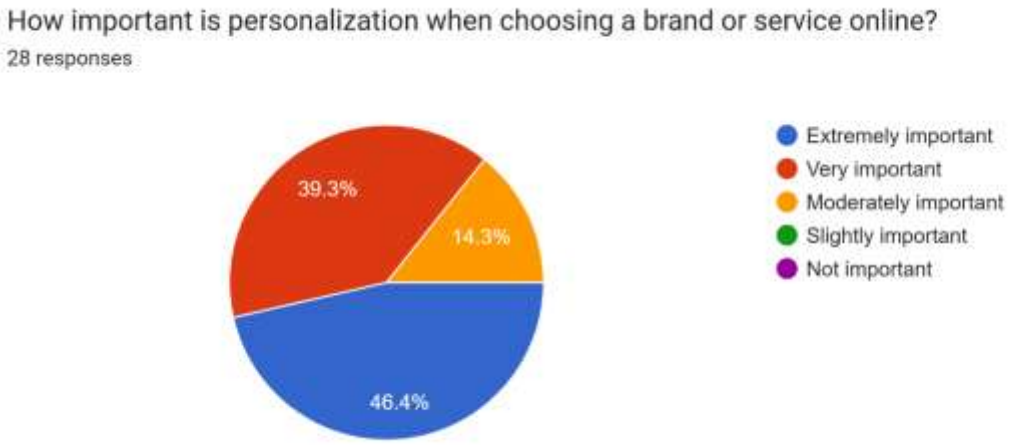
Interpretation:

- **Yes:** 75%
- **Sometimes:** 25%
- **No:** 0%

Research Insight:

All respondents find personalized content at least somewhat more engaging than generic content. A significant 75% say "Yes", confirming a strong preference for personalized content. The remaining 25% say "Sometimes", indicating conditional engagement. No one selected "No", highlighting that personalization consistently enhances content engagement for all respondents.

8- How important is personalization when choosing a brand or service online?



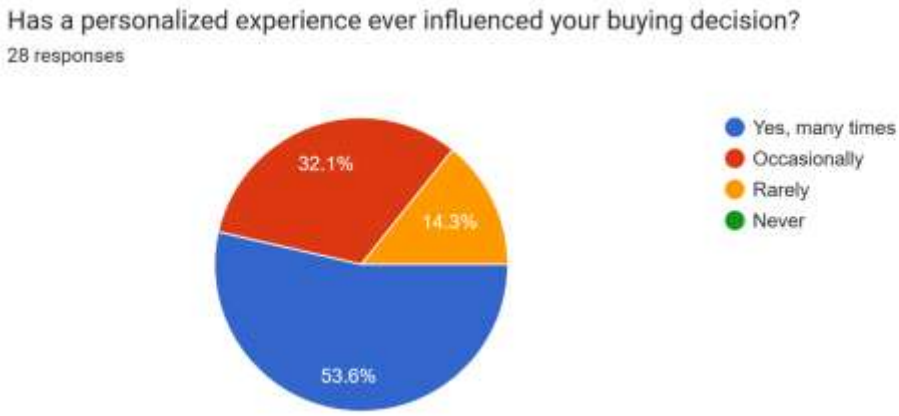
Interpretation:

- **Extremely important:** 46.4%
- **Very important:** 39.3%
- **Moderately important:** 14.3%
- **Slightly/Not important:** 0%

Research Insight:

A vast majority of respondents (85.7%) consider personalization either extremely or very important when selecting a brand or service online. The remaining 14.3% find it moderately important, and no one considers it unimportant. This underscores that personalization plays a critical role in influencing online consumer decisions.

9- Has a personalized experience ever influenced your buying decision?



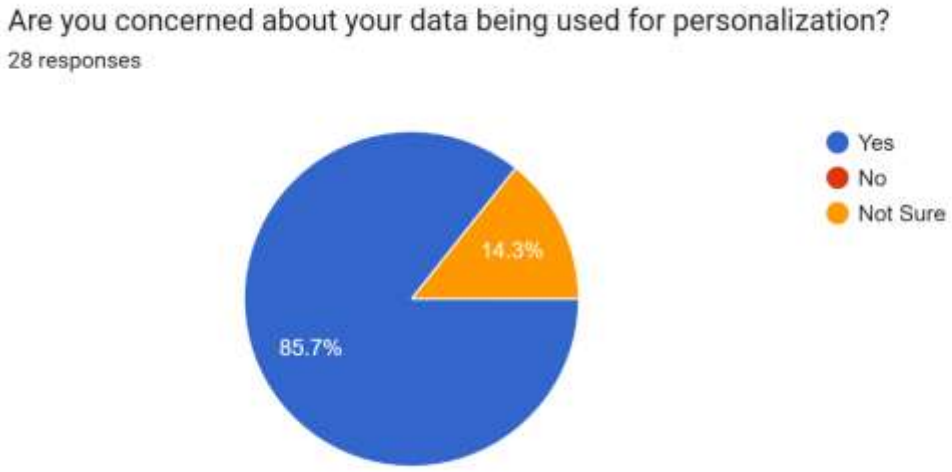
Interpretation:

- **Yes, many times:** 53.6%
- **Occasionally:** 32.1%
- **Rarely:** 14.3%
- **Never:** 0%

Research Insight:

Most respondents (85.7%) acknowledge that personalization has influenced their purchasing behavior—53.6% frequently and 32.1% occasionally. An additional 14.3% say it has happened rarely, while none have never been influenced. This suggests that personalized experiences are a strong driver of consumer buying decisions, reinforcing the value of AI-driven customization in marketing.

10- Are you concerned about your data being used for personalization?



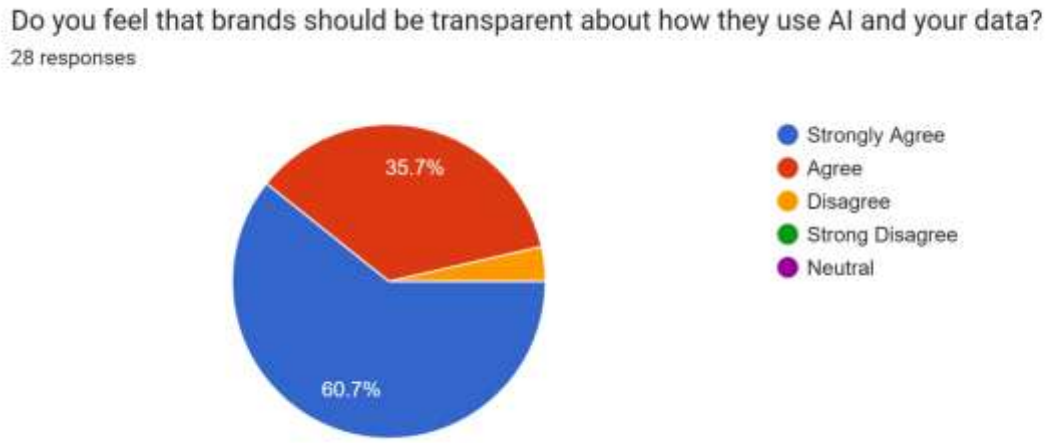
Interpretation:

- **Yes:** 85.7%
- **Not Sure:** 14.3%
- **No:** 0%

Research Insight:

An overwhelming 85.7% of respondents express concern about their data being used for personalization, while the remaining 14.3% are uncertain. No one expressed outright lack of concern.
This indicates that while personalization is valued, it comes with significant privacy concerns, highlighting the importance of transparent data practices and user consent in AI-driven personalization.

11- Do you feel that brands should be transparent about how they use AI and your data?



Interpretation:

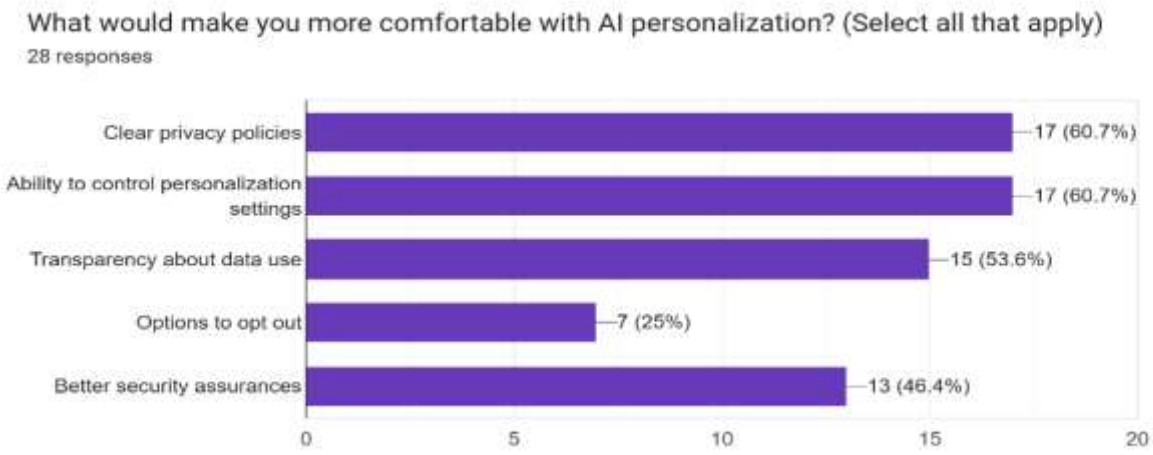
- **Strongly Agree:** 60.7%
- **Agree:** 35.7%
- **Disagree:** 3.6%
- **Strongly Disagree / Neutral:** 0%

Research Insight:

An overwhelming 96.4% of respondents (60.7% strongly agree, 35.7% agree) believe that brands should be transparent about how they use AI and personal data. Only a small minority (3.6%) disagrees.

This suggests that while users may benefit from AI-driven personalization, trust and transparency are critical. Brands must clearly communicate their AI and data practices to maintain consumer trust and meet expectations around ethical use of technology.

12- What would make you more comfortable with AI personalization? (Select all that apply)



Interpretation:

- **Clear privacy policies:** 17 responses (60.7%)
- **Ability to control personalization settings:** 17 responses (60.7%)
- **Transparency about data use:** 15 responses (53.6%)
- **Better security assurances:** 13 responses (46.4%)
- **Options to opt out:** 7 responses (25%)

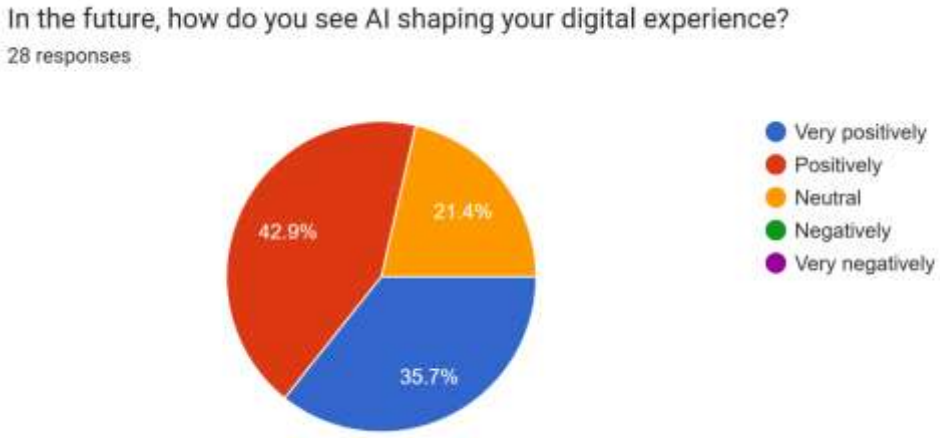
Research Insight:

The top concerns for users regarding AI personalization are clear privacy policies and the ability to control personalization settings, each selected by over 60% of respondents. This shows a strong demand for user autonomy and clarity in how AI systems function.

Transparency (53.6%) and security (46.4%) are also significant, reflecting a general concern for data safety and informed consent.

Interestingly, only 25% chose “options to opt out”, suggesting that while users want control and transparency, they may not want to completely reject personalization—they just want it done responsibly and securely.

13- In the future, how do you see AI shaping your digital experience?



Interpretation:

- **Positively:** 42.9%
- **Very positively:** 35.7%
- **Neutral:** 21.4%
- **Negatively / Very negatively:** 0%

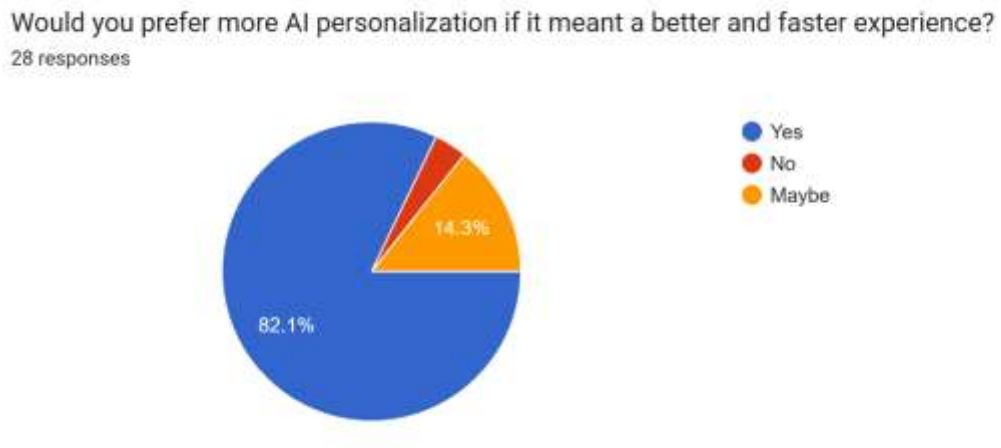
Research Insight:

The majority of respondents (78.6%) see AI shaping their digital experience positively or very positively, indicating strong optimism about AI's future role in enhancing user experiences.

Notably, no respondents viewed the future influence of AI negatively, and a small portion (21.4%) remained neutral—suggesting curiosity or uncertainty rather than concern.

Overall, this chart reflects confidence and positive expectations from users regarding the integration of AI in their digital lives.

14- Would you prefer more AI personalization if it meant a better and faster experience?



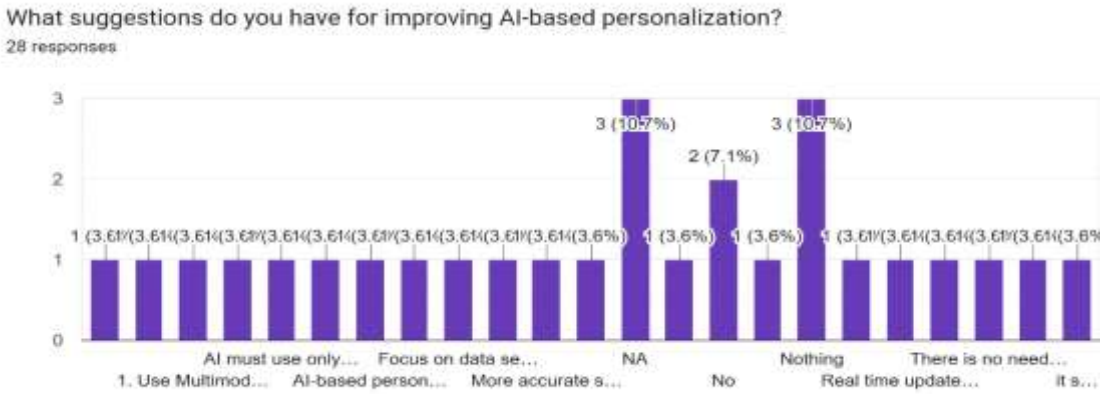
Interpretation:

- **Yes**: 82.1% (23 respondents)
- **Maybe**: 14.3% (4 respondents)
- **No**: 3.6% (1 respondent)

Research Insight:

The majority of respondents (over 80%) support increased AI personalization for improved speed and experience. A small number are unsure, and very few are opposed. This indicates a strong user preference for more personalized AI solutions.

15- What suggestions do you have for improving AI-based personalization?



Interpretation:

Each suggestion received 1 response (3.6%), except:

- "NA" and "Nothing" received 3 responses each (10.7%)
- "No" received 2 responses (7.1%)

Research Insight:

The responses are diverse and scattered, indicating no dominant suggestion. However:

- Some participants provided specific suggestions like using multimodal inputs, focusing on data security, and enabling real-time updates.
- Others either had no suggestions ("Nothing", "NA") or saw no need for improvement

C. LIMITATIONS

C. i Results discussed in light of the limitations and assumptions.

While AI-driven personalization in digital marketing has shown transformative potential in enhancing customer experience, our research outcomes must be interpreted with certain limitations in mind. The study assumes that respondents are aware of personalization tactics and how AI influences their digital interactions. However, customer awareness levels varied significantly, which may have impacted the accuracy of their responses. Additionally, we assumed uniform access to digital platforms and AI-driven interfaces, which may not hold true across different regions or demographics.

The results indicate a positive perception of AI-led personalization, yet this could be inflated due to recency effects or a general enthusiasm for new technology. Moreover, personalization efforts often come with ethical concerns related to privacy, data usage, and over-targeting, which were not fully explored in this research but are important limiting factors in real-world applications.

C. ii Validity and Reliability Issues

Validity Issues:

- Construct Validity: While the survey was designed to measure perceptions of personalization and customer satisfaction, abstract concepts like “trust,” “personalized experience,” and “AI influence” can be interpreted differently by different respondents.

- Internal Validity: The cause-effect relationship between AI personalization and improved customer experience could be influenced by extraneous variables such as brand loyalty or previous user experience.

Reliability Issues:

- The responses may vary if the survey is repeated in a different time frame or under different circumstances due to rapidly evolving customer expectations and AI capabilities.
- Survey questions may not yield consistent answers if interpreted differently based on individual knowledge of AI or personalization.

Caveats for Management:

- Small Sample Size: Our sample size was limited, affecting the generalizability of the results. The sample may not represent the wider customer population, especially across diverse age groups or geographies.
- Sampling Bias: There is a possibility that the respondents were skewed toward tech-savvy individuals more likely to engage with digital personalization, ignoring less digitally active customers.
- Nonresponse Error: Some participants may have skipped questions, leading to incomplete data. Their views might significantly differ from those who completed the survey.
- Response Bias: Participants might have provided socially desirable answers, especially regarding data privacy concerns, which could misrepresent actual behavior.

C. iii Problems Encountered and Mitigation Efforts

- **Problem: Low Response Rate**

  Effort: We sent multiple reminders and kept the survey short to encourage completion. However, this may have limited the depth of information collected.

- **Problem: Understanding of AI Terminology**

  Effort: We added brief definitions and examples within the survey to help respondents better understand terms like "AI personalization" and "machine learning-based recommendations."

- **Problem: Limited Access to a Diverse Sample**

  Effort: We shared the survey across multiple platforms (LinkedIn, WhatsApp, and academic circles) to reach a mix of professionals, students, and general consumers. Despite this, the majority of respondents belonged to the urban and educated segment.

- **Problem: Data Cleaning Challenges**

  Effort: We filtered out incomplete or inconsistent responses manually and ensured only high-quality, complete datasets were used for analysis.

C. iv Lessons Learned for Future Research

1. **Ensure a Larger and More Diverse Sample**: Future studies should aim for a larger and more demographically balanced sample to increase the generalizability of findings.
2. **Use Stratified Sampling**: Dividing respondents into subgroups based on age, region, and digital literacy can ensure better representation and allow for more granular analysis.

3. **Pre-Test Survey Tools**: Conducting pilot testing can help identify ambiguities in questions, ensure respondents interpret questions correctly, and refine the instrument before full-scale distribution.
4. **Combine Quantitative with Qualitative Insights**: Adding interviews or focus groups could provide richer context behind customer attitudes toward personalization, especially in terms of privacy concerns or emotional impact.
5. **Automate and Enhance Data Validation**: Using survey tools with built-in logic checks and validation can help reduce errors and increase data quality.
6. **Account for AI Knowledge Level**: Future research should include measures to assess the respondent's familiarity with AI to better contextualize their responses and avoid bias.
7. **Address Ethical Concerns More Rigorously**: Incorporate specific questions around data privacy, transparency, and consent to gain a holistic understanding of consumer trust in AI personalization.

D. CONCLUSIONS AND RECOMMENDATIONS

D. i. **Conclusions**

The findings of this study highlight that while AI-driven personalization in digital marketing is revolutionizing customer experience, it also presents critical challenges. AI technologies enable real-time customization, improve user engagement, and enhance customer satisfaction by predicting preferences. However, personalization is limited by factors such as data privacy concerns, over-reliance on algorithms, and the risk of misinterpretation of customer behavior.

From a managerial standpoint, the insights imply that while AI offers a competitive edge, its use must be balanced with ethical considerations and customer trust. Personalization without consent or transparency can damage brand reputation. Additionally, organizations must ensure that personalization efforts do not become intrusive or alienate certain consumer segments. Managers need to understand the nuances of AI tools and ensure that human oversight complements automated processes.

D. ii **Recommendations**

1. **Suggestions for Managerial Action:**

Invest in transparent AI systems: Businesses should prioritize explainable AI models that allow customers to understand why they are seeing certain content or product recommendations.

Focus on ethical data collection: Use customer data responsibly by ensuring informed consent and providing clear privacy policies.

Humanize digital interactions: Blend AI with human support to create a balanced, trust-building customer experience, especially in sensitive or complex buying decisions.

Segment personalization efforts: Avoid a "one-size-fits-all" model. Personalization should consider customer segments, preferences, and sensitivity toward privacy.

Continuous monitoring of AI effectiveness: Set KPIs for personalization performance, customer satisfaction, and complaints to refine the AI strategy.

2. **Suggestions for Future Follow-Up Research:**

Conduct longitudinal studies to assess the long-term impact of AI personalization on customer loyalty and brand trust.

Explore the ethical boundaries of personalization, especially in sectors involving sensitive data (e.g., healthcare, finance).

Analyze cross-cultural differences in how personalization is perceived and accepted.

Investigate the role of emerging technologies like generative AI, voice assistants, and IoT in shaping the next phase of customer experience. Examine employee readiness and training needs for managing AI tools effectively in marketing departments.

E. References

Gungunawat, A., Khandelwal, N., & Gupta, N. (2024). AI-Powered Personalization in Digital Marketing: Transforming Consumer Engagement and Strategy. In *RESEARCH REVIEW International Journal of Multidisciplinary* (Vol. 9, Issue 11, pp. 183–191). Research Review Publisher. https://doi.org/10.31305/rrijm.2024.v09.n11.026

Bhuiyan, M. S. (2024). The Role of AI-Enhanced Personalization in Customer Experiences. In *Journal of Computer Science and Technology Studies* (Vol. 6, Issue 1, pp. 162–169). Al-Kindi Center for Research and Development. https://doi.org/10.32996/jcsts.2024.6.1.17

Bhaskaraputra, A., Sutojo, F., Ramadhan, A. N., Agung Santoso Gunawan, A., & Anderies. (2022). Systematic Literature Review on Solving Personalization Problem in Digital Marketing using Machine Learning and Its Impact. In *2022 International Seminar on Application for Technology of Information and Communication (iSemantic)* (pp. 178–182). IEEE. https://doi.org/10.1109/isemantic55962.2022.9920387

D Pushpa Gowri. (2024). Impact of AI in Personalized Digital Marketing: Boosting Customer Engagement through Tailored Content. In *Journal of Communication and Management* (Vol. 3, Issue 03, pp. 216–221). Journal of Communication and Management. https://doi.org/10.58966/jcm2024334

Smita Singh. (2025). The Future of Digital Marketing: AI-Driven Predictive Models for Hyper-Personalized Customer Experiences. In *Journal of Informatics Education and Research* (Vol. 5, Issue 1). Science Research Society. https://doi.org/10.52783/jier.v5i1.2016

Chaitali Bhattacharya. (2025). AI-Powered Predictive Models Transforming the Future of Digital Marketing and Customer Engagement. In *Journal of Informatics Education and Research* (Vol. 5, Issue 1). Science Research Society. https://doi.org/10.52783/jier.v5i1.2015

Rikhi, D. (2024). AI Virtual Assistants in Human Services: Empowering Customers and Caseworkers. In *INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT* (Vol. 08, Issue 11, pp. 1–7). Indospace Publications. https://doi.org/10.55041/ijsrem37870

Dr. Arijit Bhattacharya, & Dr.Pritee Saxema. (2023). TRANSFORMING MARKETING THROUGH AI: A LITERATURE REVIEW AND FUTURE RESEARCH AGENDA. In *Journal of Global Economy* (Vol. 19, Issue 2, pp. 61–67). Journal of Global Economy. https://doi.org/10.1956/jge.v19i2.691

Verma, S., & Fatma, Dr. S. (2025). How Personalization and AI Are Transforming Digital Marketing Campaigns. In *INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT* (Vol. 09, Issue 03, pp. 1–9). Indospace Publications. https://doi.org/10.55041/ijsrem42751

Wagobera Edgar Kedi, Chibundom Ejimuda, Courage Idemudia, & Tochukwu Ignatius Ijomah. (2024). AI software for personalized marketing automation in SMEs: Enhancing customer experience and sales. In *World Journal of Advanced Research and Reviews* (Vol. 23, Issue 1, pp. 1981–1990). GSC Online Press. https://doi.org/10.30574/wjarr.2024.23.1.2159

Ashok Choppadandi. (2023). Enhancing Customer Experience in E-Commerce Through AI-Powered Personalization: A Case Study. In *Tuijin Jishu/Journal of Propulsion Technology* (Vol. 43, Issue 4, pp. 516–524). Science Research Society. https://doi.org/10.52783/tjjpt.v43.i4.6018

Boppana, V. R. (2024). AI Integration in CRM Systems for Personalized Customer Experiences. In *SSRN Electronic Journal*. Elsevier BV. https://doi.org/10.2139/ssrn.4987149

Verma, S., & Fatma, Dr. S. (2025). How Personalization and AI Are Transforming Digital Marketing Campaigns. In *INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT* (Vol. 09, Issue 03, pp. 1–9). Indospace Publications. https://doi.org/10.55041/ijsrem42751

Babadoğan, B. (2024). Unveiling the Power of AI-Driven Personalization: Transforming Consumer Behavior in the Age of Digital Marketing. In *Next Frontier For Life Sciences and AI* (Vol. 8, Issue 1, p. 61). Aba Organizasyon Eğitim Danişmanlik Yayincilik ve Pazarlama A.Ş. https://doi.org/10.62802/fj43xy18

Gungunawat, A., Khandelwal, N., & Gupta, N. (2024). AI-Powered Personalization in Digital Marketing: Transforming Consumer Engagement and Strategy. In *RESEARCH REVIEW International Journal of Multidisciplinary* (Vol. 9, Issue 11, pp. 183–191). Research Review Publisher. https://doi.org/10.31305/rrijm.2024.v09.n11.026

Bhuiyan, M. S. (2024). The Role of AI-Enhanced Personalization in Customer Experiences. In *Journal of Computer Science and Technology Studies* (Vol. 6, Issue 1, pp. 162–169). Al-Kindi Center for Research and Development. https://doi.org/10.32996/jcsts.2024.6.1.17

Duong Hoai Lan, T. M. T. (2024). Ai-Powered Customer Experience: Personalization, Engagement, and Intelligent Decision-Making in Crm. In *Journal of Electrical Systems* (Vol. 20, Issue 5s, pp. 55–71). Science Research Society. https://doi.org/10.52783/jes.1832

Chaitali Bhattacharya. (2025). AI-Powered Predictive Models Transforming the Future of Digital Marketing and Customer Engagement. In *Journal of Informatics Education and Research* (Vol. 5, Issue 1). Science Research Society. https://doi.org/10.52783/jier.v5i1.2015

Verma, S., & Fatma, Dr. S. (2025). How Personalization and AI Are Transforming Digital Marketing Campaigns. In *INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT* (Vol. 09, Issue 03, pp. 1–9). Indospace Publications. https://doi.org/10.55041/ijsrem42751

Babadoğan, B. (2024). Unveiling the Power of AI-Driven Personalization: Transforming Consumer Behavior in the Age of Digital Marketing. In *Next Frontier For Life Sciences and AI* (Vol. 8, Issue 1, p. 61). Aba Organizasyon Eğitim Danişmanlik Yayincilik ve Pazarlama A.Ş. https://doi.org/10.62802/fj43xy18

Verma, S., & Fatma, Dr. S. (2025). How Personalization and AI Are Transforming Digital Marketing Campaigns. In *INTERANTIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT* (Vol. 09, Issue 03, pp. 1–9). Indospace Publications. https://doi.org/10.55041/ijsrem42751

Bhuiyan, M. S. (2024). The Role of AI-Enhanced Personalization in Customer Experiences. In *Journal of Computer Science and Technology Studies* (Vol. 6, Issue 1, pp. 162–169). Al-Kindi Center for Research and Development. https://doi.org/10.32996/jcsts.2024.6.1.17

Smita Singh. (2025). The Future of Digital Marketing: AI-Driven Predictive Models for Hyper-Personalized Customer Experiences. In *Journal of Informatics Education and Research* (Vol. 5, Issue 1). Science Research Society. https://doi.org/10.52783/jier.v5i1.2016

Babadoğan, B. (2024). Unveiling the Power of AI-Driven Personalization: Transforming Consumer Behavior in the Age of Digital Marketing. In *Next Frontier For Life Sciences and AI* (Vol. 8, Issue 1, p. 61). Aba Organizasyon Eğitim Danişmanlik Yayincilik ve Pazarlama A.Ş. https://doi.org/10.62802/fj43xy18

Gungunawat, A., Khandelwal, N., & Gupta, N. (2024). AI-Powered Personalization in Digital Marketing: Transforming Consumer Engagement and Strategy. In *RESEARCH REVIEW International Journal of Multidisciplinary* (Vol. 9, Issue 11, pp. 183–191). Research Review Publisher. https://doi.org/10.31305/rrijm.2024.v09.n11.026

Duong Hoai Lan, T. M. T. (2024). Ai-Powered Customer Experience: Personalization, Engagement, and Intelligent Decision-Making in Crm. In *Journal of Electrical Systems* (Vol. 20, Issue 5s, pp. 55–71). Science Research Society. https://doi.org/10.52783/jes.1832

Wagobera Edgar Kedi, Chibundom Ejimuda, Courage Idemudia, & Tochukwu Ignatius Ijomah. (2024). AI software for personalized marketing automation in SMEs: Enhancing customer experience and sales. In *World Journal of Advanced Research and Reviews* (Vol. 23, Issue 1, pp. 1981–1990). GSC Online Press. https://doi.org/10.30574/wjarr.2024.23.1.2159

F. Appendices

1-Do you regularly use digital platforms for shopping, content consumption, or services?

- Yes
- No

2-How familiar are you with the term “Artificial Intelligence (AI)”?

- very familiar
- Somewhat familiar
- Heard of it but not sure what it means
- Not familiar at all

3-Are you aware that AI is used to personalize your online experience (e.g., product recommendations, ads, emails)?

- Yes
- No

4-Which of the following AI-driven personalization techniques have you experienced? (Select all that apply)

- Product recommendations
- Personalized email offers
- Chatbots for support
- Targeted advertisements
- Dynamic website content
- Voice assistants (e.g., Alexa, Siri)

5-Do you feel that AI-driven personalization improves your digital experience?

- Strongly agree
- Agree Neutral
- Disagree
- Strongly Disagree

6-In your opinion, how relevant are the personalized recommendations or ads you receive online?

- Very relevant
- Somewhat relevant
- Not very relevant
- Not at all relevant

7-Do you find personalized content more engaging than generic content?

- Yes
- No
- Sometimes

8-How important is personalization when choosing a brand or service online?

- Extremely important
- Very important
- Moderately important
- Slightly important
- Not important

9-Has a personalized experience ever influenced your buying decision?

- Yes, many times
- Occasionally
- Rarely
- Never

10-Are you concerned about your data being used for personalization?

- Yes
- No
- Not Sur

11-Do you feel that brands should be transparent about how they use AI and your data?

- Strongly Agree
- Agree
- Disagree
- Strong Disagree
- Neutral

12-What would make you more comfortable with AI personalization? (Select all that apply)

- Clear privacy policies
- Ability to control personalization settings
- Transparency about data use
- Options to opt out
- Better security assurances

13-In the future, how do you see AI shaping your digital experience?

- Very positively
- Positively
- Neutral
- Negatively
- Very negatively

14-Would you prefer more AI personalization if it meant a better and faster experience?

- Yes
- No

- Maybe

Survey link address:

https://docs.google.com/forms/d/e/1FAIpQLSequ0RbrXwWKSllHIG-LrYtB1tDW5YwfQOWhMC_qAFTzA2FnQ/viewform?usp=header

Survey QR code: