



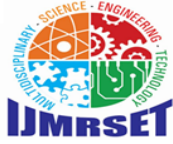
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AI-Driven Consumer Behaviour Analysis in Entrepreneurial Marketing

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ABSTRACT: The rapid integration of Artificial Intelligence (AI) into marketing has significantly transformed consumer behaviour and entrepreneurial strategies. This study analyzes how AI-driven tools influence consumer awareness, engagement, decision-making, and trust. Using primary data collected from 30 respondents through a structured questionnaire, the research evaluates the effectiveness of AI in enhancing marketing outcomes for entrepreneurs. The findings reveal that AI-driven marketing has high awareness and acceptance among consumers, significantly influencing purchase decisions through personalized recommendations. However, concerns regarding data privacy and excessive personalization persist. The study concludes that AI acts as a strategic enabler for entrepreneurs but requires ethical implementation to sustain consumer trust.

KEYWORDS: Artificial Intelligence, Consumer Behaviour, Entrepreneurial Marketing, Personalization, Data Privacy, Digital Marketing

I. INTRODUCTION

In the rapidly evolving digital economy, artificial intelligence has emerged as a transformative force in marketing practices, particularly within entrepreneurial ventures. Startups and small businesses are increasingly adopting AI technologies to analyze consumer data, predict preferences, and deliver personalized experiences. Consumer behaviour, which traditionally depended on psychological and social factors, is now heavily influenced by algorithm-driven insights and automated interactions. AI enables entrepreneurs to optimize marketing strategies through real-time data analysis, targeted advertising, and customer segmentation. Despite its advantages, the adoption of AI raises concerns regarding ethical implications, data privacy, and consumer trust. This research aims to explore how AI-driven tools influence consumer behaviour and decision-making processes in entrepreneurial marketing.

Objectives of the Study:

1. To analyze the level of awareness and usage of AI-based tools (such as chatbots and personalized recommendations) among consumers.
2. To examine the influence of AI on consumer purchasing decisions and overall buying behaviour.
3. To evaluate consumer trust and concerns regarding data privacy and security in AI-driven marketing.
4. To assess how AI enhances customer experience and how entrepreneurs can use it to improve marketing effectiveness.

II. LITERATURE REVIEW

Usman et al. (2024), This research analyzed AI-driven strategies in entrepreneurship and concluded that Artificial Intelligence enhances market analysis, product development, and customer engagement through predictive analytics and data-driven decision-making.

Sivakumar and Saranya (2025), This study highlighted that AI-powered marketing enables personalization and significantly influences consumer behaviour, thereby improving customer engagement and supporting startup innovation.

Nugroho (2025), This research further emphasized that AI plays a crucial role in predicting consumer behaviour and optimizing marketing strategies using machine learning and big data analytics.

Gupta and Rautela (2025), This research found that AI-driven personalized marketing positively impacts consumer preferences, purchase decisions, and customer loyalty.



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Moreover, Li et al. (2022), This research concluded that AI supports entrepreneurial activities by improving decision-making and identifying user needs through intelligent data analysis .

III. RESEARCH METHODOLOGY

Research Design: Descriptive research methodologies used

Data Collection: Primary data collected via structured questionnaire

Sample Size: 30 respondents.

Sampling Technique: Convenience sampling

Tools for Analysis: Percentage analysis, Frequency distribution, Interpretative analysis.

Variables Studied: AI-based personalization, chatbot usage, consumer awareness, trust, and data privacy concerns as independent variables influencing consumer purchase decisions, buying behaviour, satisfaction, engagement, and brand loyalty, with demographic factors such as age, gender, and occupation considered as control variables.

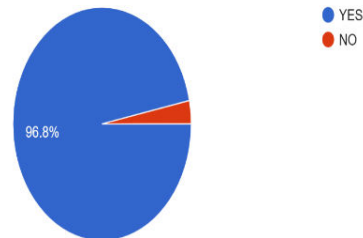
Data Analysis and Interpretation:

Based on the survey responses:

Graph1

Q1. Are you aware that Artificial Intelligence (AI) is used in marketing activities?

31 responses

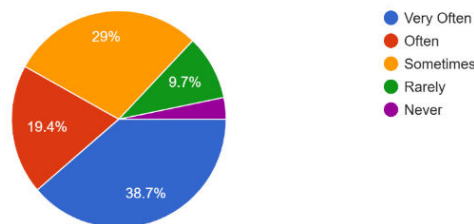


Interpretation: The results show that 96.8% of respondents are aware that AI is used in marketing, while only 3.2% are not aware. This indicates a very high level of consumer awareness regarding AI-driven marketing practices.

Graph 2

Q2. Have you noticed personalized ads or recommendations based on your online behavior?

31 responses



Interpretation: The majority of respondents frequently notice personalized ads, with 38.7% experiencing them very often and 29% sometimes. This indicates that AI-driven personalization is widely visible and actively influencing users online.

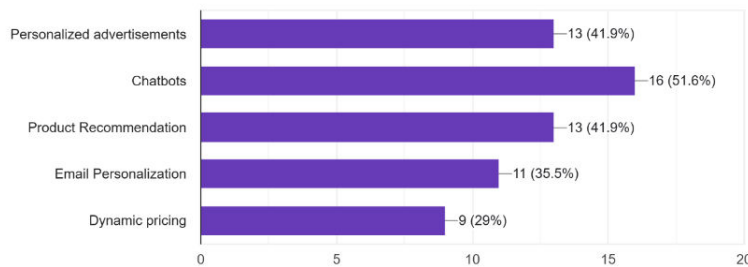


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Graph3

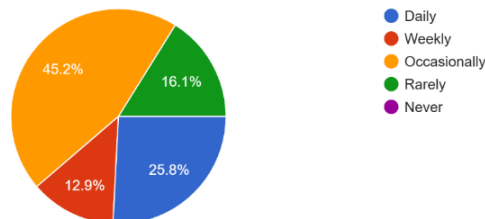
Q3. Which of the following AI-based marketing tools have you experienced? (Select all that apply)
31 responses



Interpretation: Chatbots (51.6%) are the most commonly experienced AI tool, followed by personalized ads and product recommendations (41.9% each). This shows that interactive and recommendation-based AI tools dominate consumer exposure.

Graph4

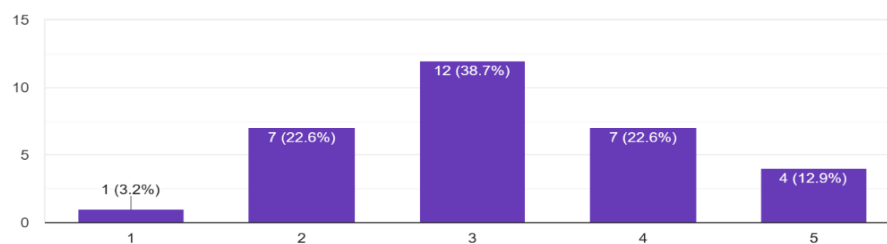
Q4. How frequently do you interact with AI-powered marketing content?
31 responses



Interpretation: Most respondents interact with AI-powered marketing occasionally (45.2%) or daily (25.8%), indicating moderate to high engagement levels. This suggests AI content is regularly encountered but not always actively engaged with.

Graph5

Q5. AI-based recommendations influence my purchase decisions.
31 responses



Interpretation: A majority of respondents show moderate to high agreement that AI recommendations influence their purchase decisions, with the highest responses at level 3 (38.7%). This reflects a noticeable but not overwhelming impact of AI on buying behaviour.

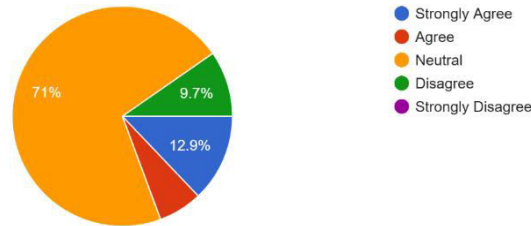


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Graph6

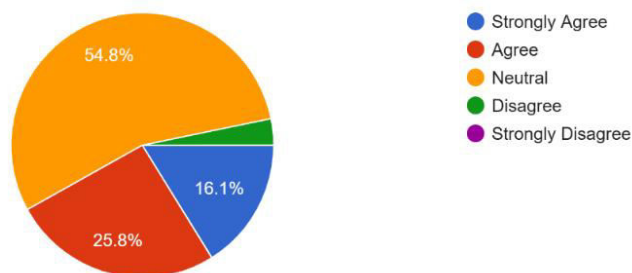
Q6. I find AI-driven marketing more relevant than traditional marketing.
31 responses



Interpretation: Most respondents (71%) remain neutral about AI being more relevant than traditional marketing, while a smaller proportion agrees. This suggests that although AI is accepted, it has not completely replaced traditional marketing in consumer perception.

Graph7

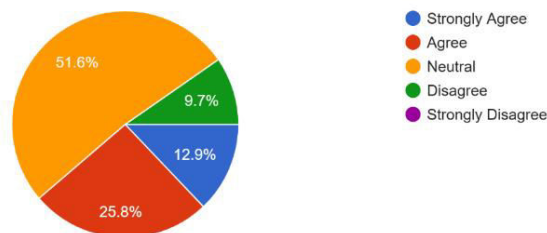
Q7. AI helps businesses understand consumer preferences better.
31 responses



Interpretation: Most respondents remain neutral (54.8%), while a significant portion agrees that AI helps businesses understand consumer preferences better. This indicates moderate confidence in AI's analytical capability, though full acceptance is still developing.

Graph8

Q8. I trust AI-generated product suggestions.
31 responses



Interpretation: A majority of respondents (51.6%) are neutral about trusting AI-generated suggestions, while some show agreement. This suggests that trust in AI recommendations exists but is not yet fully established.

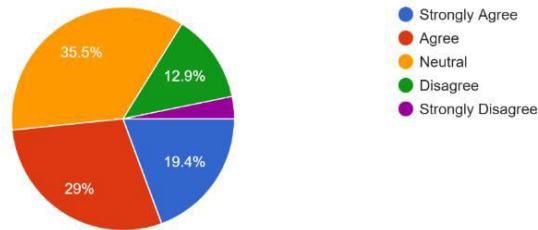


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Graph9

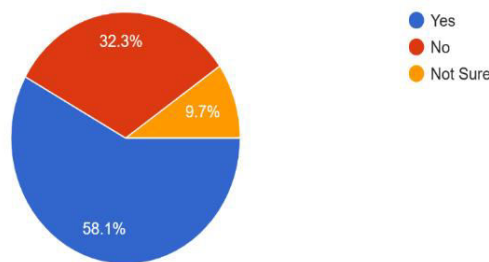
Q9. AI-driven marketing saves my time while shopping.
31 responses



Interpretation: Most respondents either agree (29%) or strongly agree (19.4%) that AI-driven marketing saves time, though a considerable portion remains neutral (35.5%). This indicates that AI is perceived as useful, but not universally impactful.

Graph10

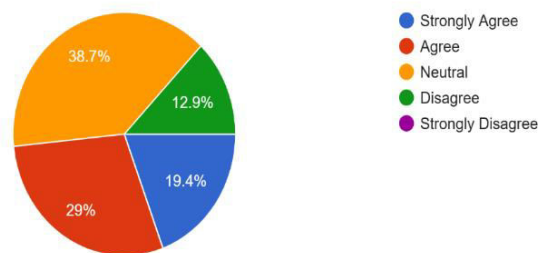
Q10. Do you think AI helps startups and entrepreneurs compete with large companies?
31 responses



Interpretation: A majority of respondents (58.1%) believe that AI helps startups compete with large companies, while 32.3% disagree. This reflects a generally positive perception of AI as a competitive tool for entrepreneurs.

Graph11

Q11. AI enables entrepreneurs to target the right customers effectively.
31 responses



Interpretation: A combined majority agrees (48.4%) that AI enables entrepreneurs to target the right customers effectively, though 38.7% remain neutral. This suggests that AI is seen as useful for targeting but still requires stronger validation among users.

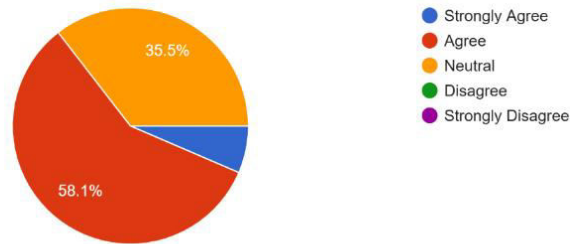


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Graph12

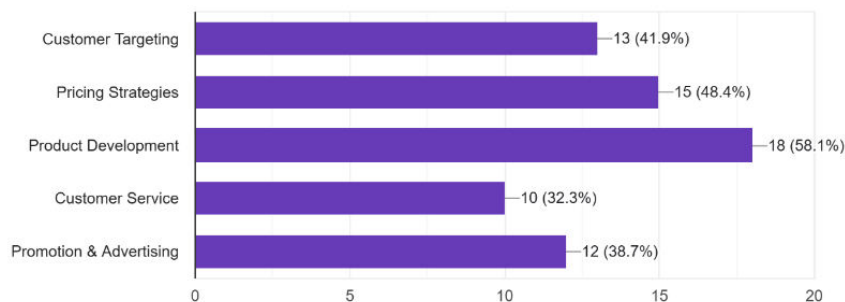
Q12. AI-driven consumer insights improve marketing decision-making for entrepreneurs.
31 responses



Interpretation: A majority of respondents (58.1%) agree that AI-driven insights improve marketing decision-making, while 35.5% remain neutral. This indicates strong recognition of AI’s role in enhancing entrepreneurial decisions.

Graph13

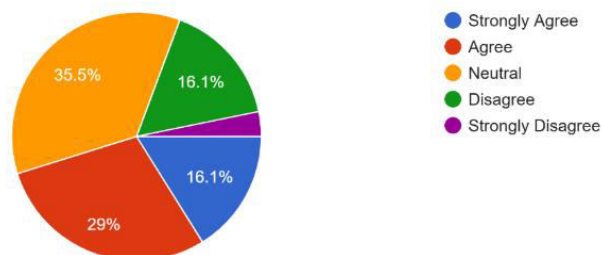
Q13. Which areas of entrepreneurial marketing benefit most from AI?
31 responses



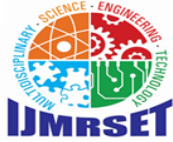
Interpretation: Product development (58.1%) and pricing strategies (48.4%) are perceived as the most benefited areas from AI. This suggests that AI is considered highly valuable for strategic and innovation-driven functions.

Graph14

Q14. AI-based tools are affordable and accessible for small businesses.
31 responses



Interpretation: Responses are mixed, with 35.5% neutral and 45.1% agreeing that AI tools are affordable and accessible. This indicates moderate acceptance but also some uncertainty regarding affordability for small businesses.

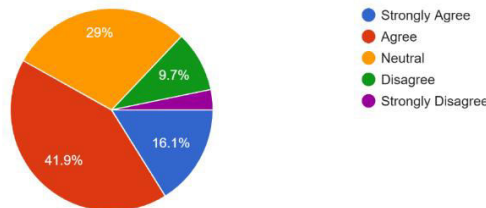


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Graph15

Q15. I am concerned about my data privacy when AI is used in marketing.
31 responses



Interpretation: A significant proportion of respondents (58%) express concern about data privacy, while 29% remain neutral. This highlights that privacy is a major issue affecting trust in AI-driven marketing.

IV. RESULTS & FINDINGS

The study reveals that AI plays a significant role in shaping consumer behaviour by improving personalization and decision-making efficiency. Most consumers are aware of AI applications and actively engage with them during online shopping. AI-driven recommendations positively influence purchasing behaviour, leading to increased customer satisfaction. However, concerns regarding data security and lack of human interaction still exist. Entrepreneurs who effectively balance personalization with transparency are more likely to gain consumer trust and loyalty.

V. CONCLUSION

The integration of artificial intelligence in entrepreneurial marketing has revolutionized how businesses interact with consumers. AI enables startups to compete effectively by offering personalized and data-driven experiences. The research concludes that AI significantly influences consumer behaviour, particularly in enhancing convenience and engagement. However, ethical considerations such as data privacy and transparency must be addressed to ensure sustainable adoption. Entrepreneurs should focus on building trust while leveraging AI capabilities to maximize marketing effectiveness and customer satisfaction.

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