

Analyzing the Influence of AI-Driven Digital Marketing Perceptions on the Purchasing Decisions of College Teachers' in Madurai City

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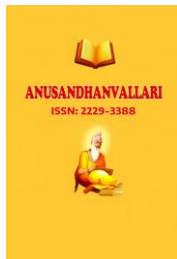
Abstract: The research paper investigates the perceptions of college teachers in Madurai City toward AI-driven digital marketing channels and their influence on purchasing decisions. The study aims to examine the demographic profile of college teachers as digital consumers, identify their preferred AI-integrated digital marketing channels, and evaluate the influence of AI-enabled digital marketing on their purchasing decisions. A quantitative research design was adopted, and primary data were collected from 275 college teachers using a structured questionnaire. The collected data were analyzed using SPSS (Version 24) with statistical techniques including descriptive statistics and Chi-square tests. The findings indicate that college teachers show a strong preference for AI-enabled mobile applications, AI-based social media platforms, and personalized recommendation systems while making purchasing decisions. The study further reveals a statistically significant association between occupation, educational qualification, and preference for AI-driven digital marketing channels. The research provides valuable insights for marketers to design AI-enabled, personalized, and mobile-centric marketing strategies that effectively address the needs and preferences of college teachers in Madurai City.

Keywords: AI-driven digital marketing, College teachers, Consumer perception, Purchasing decisions, Artificial Intelligence and Madurai City

Introduction

Artificial Intelligence (AI) has significantly transformed digital marketing by enabling businesses to deliver personalized, data-driven, and interactive customer experiences. AI-powered technologies such as recommendation engines, chatbots, predictive analytics, intelligent search systems, and automated customer support have become essential tools for influencing consumer purchasing decisions.

College teachers represent an educated, digitally aware, and financially independent consumer segment with increasing exposure to AI-enabled digital platforms. Their purchasing decisions are often influenced by personalized recommendations, online reviews, AI-assisted advertisements, and intelligent search algorithms.



Understanding how college teachers perceive AI-driven digital marketing provides valuable insights for marketers seeking to develop effective customer engagement strategies.

This study investigates the perceptions of college teachers in Madurai City toward AI-enabled digital marketing channels and examines how these perceptions influence their purchasing decisions.

2. Literature Review

Recent studies demonstrate that AI-driven digital marketing has substantially influenced consumer behavior through personalization, automation, and predictive decision-making.

Kumar and Devi (2022) observed that AI-enabled digital platforms significantly improve customer engagement by delivering personalized product recommendations and targeted advertisements.

Patel and Srinivasan (2022) reported that consumers exhibit high awareness of AI-powered marketing tools, although purchase conversion depends largely on trust and perceived usefulness.

Sharma and Thomas (2023) found that AI-based social media algorithms considerably influence purchase intentions through personalized content delivery and influencer recommendations.

Rani and Meenakshi (2023) concluded that AI-supported influencer marketing enhances consumer confidence and positively affects buying behaviour through personalized digital communication.

Das and Karthik (2024) emphasised that AI-driven personalization strengthens customer satisfaction, loyalty, and repeat purchases while improving marketing effectiveness.

Joseph and Abraham (2024) highlighted ethical concerns associated with AI-based marketing, particularly regarding consumer privacy, transparency, algorithmic bias, and trust.

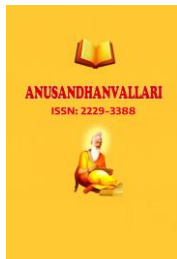
The existing literature indicates that although AI-driven marketing positively influences purchasing behavior, its effectiveness depends on consumer perception, trust, personalization, and responsible implementation.

Research Gap

The rapid integration of Artificial Intelligence (AI) into digital marketing has transformed how consumers receive product information, advertisements, recommendations, and promotional messages. Although existing studies have examined AI-driven marketing and consumer purchasing behaviour, limited research has focused specifically on college teachers as a distinct consumer group. Teachers frequently use digital platforms for professional and personal purposes, yet their perceptions of AI-generated advertisements, personalised recommendations, chatbots, predictive promotions, and data-driven marketing remain comparatively underexplored. Furthermore, previous studies have largely concentrated on general consumers, students, or younger digital users, creating a gap in understanding the purchasing decisions of educated professionals. There is also limited empirical evidence regarding how perceived usefulness, personalisation, trust, privacy, relevance, and transparency influence teachers' responses to AI-driven digital marketing. Therefore, this study addresses these gaps by examining the influence of AI-driven digital marketing perceptions on the purchasing decisions of college teachers.

Importance of the Study

The study is important because AI-driven digital marketing is increasingly influencing how consumers discover, evaluate, and purchase products and services. Understanding the perceptions of college teachers can provide meaningful insights into the behaviour of an educated and digitally engaged consumer group. The



findings may help marketers understand how factors such as personalised recommendations, advertisement relevance, convenience, trust, privacy, and technological usefulness affect teachers' purchasing decisions. The study can also assist digital marketers in designing more transparent, relevant, and consumer-oriented AI marketing strategies. From an academic perspective, the study contributes to the growing literature on Artificial Intelligence, digital marketing, consumer perception, and purchasing behaviour by focusing on college teachers. The findings may also provide useful information for researchers, educational institutions, and businesses interested in understanding the changing nature of consumer decision-making in an increasingly AI-enabled digital environment.

Statement of the Problem

The increasing use of Artificial Intelligence in digital marketing has changed the way consumers interact with brands and make purchasing decisions. AI technologies enable marketers to provide personalised advertisements, product recommendations, automated communication, predictive offers, and targeted promotional content. However, consumers may perceive these technologies differently depending on their level of awareness, trust, perceived usefulness, privacy concerns, and previous digital experiences. College teachers represent an important consumer segment because of their educational background and regular exposure to digital technologies. Despite this, limited attention has been given to understanding how their perceptions of AI-driven digital marketing influence their purchasing decisions. Concerns relating to data privacy, transparency, excessive personalisation, accuracy, and reliability may also affect their willingness to respond to AI-based marketing. Hence, the problem addressed by this study is to examine how perceptions of AI-driven digital marketing influence the purchasing decisions of college teachers.

Objectives Of The Study

The study has the following objectives:

- To examine the demographic profile of college teachers as digital consumers.
- To identify the AI-integrated digital marketing channels most preferred by college teachers.
- To evaluate the influence of AI-enabled digital marketing on the purchasing decisions of college teachers.

methodology

The study employed a quantitative research approach using a simple random sampling technique. Primary data were collected from 275 college teachers working in various arts, science, engineering, management, and professional colleges located in Madurai City through a structured questionnaire.

The questionnaire collected information regarding:

- Demographic characteristics
- Usage of AI-enabled digital marketing channels
- Perception toward AI-driven marketing
- Purchasing behaviour

The collected data were analysed using SPSS Version 24.

The following statistical tools were employed:

- Descriptive Statistics

- Chi-square Test
- Regression analysis

Results And Discussion

Demographic Profile of College Teachers

Table 1

Demographic Profile of College Teachers

Demographic Variables	Category	Frequency	Percentage (%)
Gender	Male	133	48.36
	Female	142	51.64
Age	Below 30 Years	42	15.27
	31–40 Years	96	34.91
	41–50 Years	88	32.00
	Above 50 Years	49	17.82
Teaching Experience	Less than 5 Years	58	21.09
	6–10 Years	76	27.64
	11–20 Years	84	30.55
	Above 20 Years	57	20.72
Educational Qualification	Postgraduate	68	24.73
	M.Phil.	79	28.73
	Ph.D.	128	46.54

Interpretation

The majority of respondents were female college teachers (51.64%). Most respondents belonged to the age group of 31–40 years (34.91%), possessed more than ten years of teaching experience, and held doctoral qualifications. The demographic profile indicates that the respondents are experienced professionals with high educational attainment and regular exposure to digital technologies.

Preferred Ai-Driven Digital Marketing Channels

Table 2

Preferred AI-Driven Digital Marketing Channels

Digital Marketing Channel	Frequency	Percentage (%)
AI-enabled Mobile Applications	65	23.64
AI-based Social Media Platforms	58	21.09
AI-powered Search Engines	46	16.73
Personalized Email Marketing	34	12.36
AI Chatbots	29	10.55
AI-driven Video Platforms	22	8.00
AI-powered Smart Advertisements	13	4.73
AI-curated Blogs and Educational Content	8	2.90

Interpretation

AI-enabled mobile applications emerged as the most preferred digital marketing channel among college teachers, followed by AI-based social media platforms and intelligent search engines. These findings suggest that teachers prefer personalized, informative, and convenient digital marketing platforms that assist them in making well-informed purchasing decisions.

Hypothesis Testing

Null Hypothesis (H_0)

There is no significant association between the demographic profile of college teachers and their preference for AI-driven digital marketing channels.

Table 3

Chi-square Test

Variable	Chi-square Value	df	P-value	Interpretation
Gender vs AI Channel Preference	10.22	8	0.249	Not Significant
Age vs AI Channel Preference	21.56	24	0.607	Not Significant
Teaching Experience vs AI Channel Preference	35.81	16	0.003	Significant
Educational Qualification vs AI Channel Preference	38.49	24	0.032	Significant

Interpretation

The Chi-square analysis indicates that teaching experience and educational qualification have a statistically significant association with the preference for AI-driven digital marketing channels ($p < 0.05$). However, gender and age do not significantly influence channel preference.

Accordingly, the null hypothesis is rejected for teaching experience and educational qualification and accepted for gender and age.

Influence Of Ai-Enabled Digital Marketing On The Purchasing Decisions Of College Teachers

To evaluate the influence of AI-enabled digital marketing on the purchasing decisions of college teachers, a multiple regression analysis was carried out. The study considered a sample of 275 college teachers. AI-enabled digital marketing was considered the independent variable, while purchasing decision was considered the dependent variable.

Table 4
Regression Analysis of AI-Enabled Digital Marketing on Purchasing Decisions

Model	R	R Square	Adjusted R Square	F-value	Sig.
AI-enabled Digital Marketing → Purchasing Decision	0.684	0.468	0.458	47.35	0.000

Source: Primary Data

Interpretation

The results presented in Table 5.4 indicate that the correlation coefficient (R) is 0.684, which indicates a positive relationship between AI-enabled digital marketing and the purchasing decisions of college teachers.

The coefficient of determination (R^2) is 0.468, indicating that 46.8% of the variation in purchasing decisions is explained by AI-enabled digital marketing. The remaining 53.2% of the variation may be explained by other factors that are not included in the present model.

The calculated F-value is 47.35, with a significance value of 0.000, which is less than the 0.05 level of significance. Therefore, the regression model is statistically significant.

Hypothesis Testing

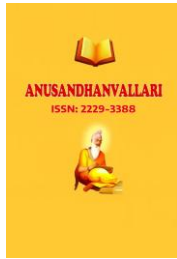
H_0 : AI-enabled digital marketing has no significant influence on the purchasing decisions of college teachers.

H_1 : AI-enabled digital marketing has a significant influence on the purchasing decisions of college teachers.

Since the significance value ($p = 0.000$) is less than 0.05, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted.

Interpretation:

The analysis indicates that AI-enabled digital marketing has a statistically significant influence on the purchasing decisions of college teachers. The findings suggest that AI-enabled digital marketing factors such as personalized advertisements, product recommendations, chatbots, targeted promotions, and AI-generated recommendations can be associated with differences in purchasing decisions among the respondents.



Suggestions

The study suggests that marketers should adopt AI-driven, personalized digital marketing strategies to better engage college teachers and influence their purchasing decisions. Greater emphasis should be placed on AI-enabled mobile applications and social media platforms, as these are the most preferred digital marketing channels among the respondents. Businesses should ensure transparency, protect consumer privacy, and use ethical AI practices to build trust and confidence. AI-powered recommendation systems should provide accurate and relevant product suggestions based on consumer preferences. Marketers should also segment their campaigns according to the educational qualifications and teaching experience of consumers for greater effectiveness. Educational institutions can promote digital literacy and awareness of AI technologies to help teachers make informed purchasing decisions. Finally, future research may compare different categories of teachers or explore the impact of emerging AI technologies on consumer behavior in other regions.

Conclusion

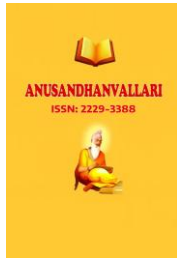
The study examined the perceptions of college teachers toward AI-driven digital marketing and its influence on purchasing decisions. The findings indicate that AI-enabled mobile applications, personalized recommendation systems, AI-based social media platforms, and intelligent search engines significantly influence purchasing behavior among college teachers.

Teaching experience and educational qualification significantly affect teachers' preferences for AI-enabled marketing channels. Consequently, marketers should design AI-powered digital marketing strategies that provide relevant, personalized, transparent, and trustworthy information tailored to the professional needs of college teachers.

Future research may extend the study by comparing teachers from government and private colleges, examining sector-specific purchasing behavior, or investigating the long-term impact of generative AI applications on consumer trust and digital purchasing decisions.

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