

An Impact of Artificial Intelligence Based on Digital Marketing with Special Reference to Tirunelveli City

¹Dr. M. Nithya, ²Dr. K. Rajamannar

¹ Assistant Professor, Department of Commerce, Yadava College, Madurai Kamaraj University,
Madurai, Tamil Nadu.

² Assistant Professor, Department of Commerce, Manonmaniam Sundaranar University, Tirunelveli,
Tamil Nadu.

DOI : <https://doi.org/10.51583/IJLTEMAS.2025.1411000080>

Received: 17 November 2025; Accepted: 22 November 2025; Published: 18 December 2025

ABSTRACT

Artificial intelligence is a technology that allows computers or machines to think like humans and accomplish tasks that are similar to those performed by the human brain. Artificial Intelligence and technological advancements are now being applied in practically in all facets of life. It has been used in conjunction with digital marketing to help firms reach out to customer at the proper time. “Marketers have the ability to process large amounts of data and meet client expectations. It has been that AI has been used to ensure customer satisfaction”. The use of the internet is growing in India, which opens up new commercial options. Artificial Intelligence (AI) in the modern era is a broad field that employs advanced techniques to derive viewpoints from vast volumes of data. The basic idea behind AI is to teach robots to practice, resolve problem that is faced on a regular basis. The AI is enabled in supporting the management to create and monitor various digital content, assist in understanding the overall needs of the customers and enable in providing the necessary information to the management for taking key decisions. The AI helps the marketers to create distinct advantage and enable in providing better products and services to the customers.

Key Words: AI, Marketing, GENAI, Robots.

INTRODUCTION

Artificial Intelligence (AI) is gaining popularity in everyday life of business and individuals. Companies apply AI for interacting with customers and engaging them through voice recognition, image recognition, addressing their needs, resolving queries etc. AI is considered as the overall integration between various technologies covering cloud computing, robotics, digital content creation, network devices and their systems. The AI is enabled in supporting the management to create and monitor various digital content, assist in understanding the overall needs of the customers and enable in providing the necessary information to the management for taking key decisions. The AI helps the marketers to create distinct advantage and enable in providing better products and services to the customers (Cremer, 2019).

Digital Marketing

Digital marketing enabled the marketers to apply various strategies and enhance the usage of various electronic devices, promote the products, track the needs of the customers by using various internet tools. The marketers can also enable in engaging the customers, target the advertisements and keep updated on the recent happenings in the business environment. AI in marketing process enables the marketers to process high volume of data and crunch them for arriving at key information, analyse them so as to meet the needs of the customers in a quick span of time. Besides, the management needs to engage the customers in an effective manner so that they will stay loyal and support in enhancing the return on investments. Another essential factor which instead to implement AI in the marketing process is that the business

environment is becoming more complex, competitive and dynamic with various internet tools like Web 2.0 etc. hence companies need to recognize and apprehend the customer needs and expectations, create and improvise the products so as to meet the needs in effective manner.

Statement of The Problem

The problem in AI within digital marketing lies in optimizing algorithms to interpret vast datasets for targeted advertising, as the ethical concerns around privacy and potential biases pose challenges in delivering personalized consent without compromising user trust.

Objectives of The Study

- To study demographic profile of digital marketers.
- To find out impact of AI on digital marketing.
- To find out problems of digital marketers based on digital marketing.

Scope of Artificial Intelligence in Digital Marketing

The scope of artificial intelligence in digital marketing is expansive. AI can revolutionize various aspects of digital marketing, including:

- AI helps to create highly personalized content and recommendations based on user behavior and preferences, improving customer engagement.
- AI algorithms analyze data to predict customer behavior, enabling marketers to make data-driven decisions and optimize campaigns.
- AI powered Chatbots enhance customer interactions by providing instant support, answering queries, and guiding users through the sales funnel.
- AI optimizes ad targeting by analyzing user data and behavior, ensuring that ads are shown to the most relevant audience for better conversion rates.
- AI automates routine tasks such as social media posting, email marketing, and data analysis, save time and resources for marketers.
- AI helps map and understand the customer journey, enabling marketers to tailor their strategies for each stage of the buying process.

Hypothesis of The Study

H0: There is no significant association between gender and the level of impact of AI based on digital marketing in Tirunelveli district.

H0: There is no significant association between age groups and the level of impact of AI based on digital marketing in Tirunelveli district.

H0: There is no significant association between educational qualification levels and the impact of AI based on digital marketing in Tirunelveli district.

METHODOLOGY

Research methodology is a way to systematically solve the research problems. It may be understood as a science of studying how research is done scientifically.

Type of Sampling

Convenient sampling has been followed. Convenience sampling (also known as grab sampling, accidental sampling, or opportunity sampling) is a type of sampling that involves the sample being drawn from that part of population that is close to hand.

Research Design

A research design is the arrangement of conditions from collection and analysis of data in a manner that aims to combine relevance to the research with economy in “procedure”. The researcher and Descriptive research design, because it helps to describe a particular situation prevailing with a company. Descriptive study was necessary to ensure the complete interpretation of the situation and to ensure minimum bias in the collection of data.

Sample Size

For a research study to be perfect the sample size selected should be optimal i.e. it should neither be excessively large nor too small. Hence the sample size selected for the study was 110 digital marketers in Tirunelveli District.

Statistical Tools Used for Analysis

I conducted a market study using a questionnaire as the research tool. The questionnaire was made up of closed-ended inquires that were created to collect as much data as feasible. If the recipient is provided options, responding from the choices is simpler for them than having to consider and react and it also takes less time. Because people keep reacting, one must make the appropriate decision in accordance.

- Percentage analysis
- Chi-square analysis
- Bar chart

LITERATURE REVIEW:

Keng Siau and Yin Yang (2017), advanced technologies will have a significant influence in the near future. Marketing is being transformed by artificial intelligence and robotics. Salespeople and marketers are likely to be replaced by robots. Websites, on the other hand, can use eye-tracking data to automatically update information. It fosters a collaborative atmosphere between man and machine. Marketing experts must exceed machines in terms of invention, originality, and design in this difficult and dangerous field.

Bughin, Hazan, Manyika, and Woetzel (2017), personalized ads may be produced by using artificial intelligence to analyse data. It improves customer service. Currently, covered tasks and operations include web creation, external email marketing, social media monitoring, digital marketing, and lead generation.

Role of Artificial Intelligence in Digital Marketing

Nowadays AI is everywhere. AI in digital marketing as well. AI has helped organizations to understand what customers want and helped to increase customer satisfaction. Artificial Intelligence isn't here to replace jobs but increases productivity and efficiency. AI can identify which customers are most likely to unsubscribe your service and also analyzes which features are responsible for unsubscribing customers. Marketers can then take action to avoid un-subscriptions. AI has highlighted its presence in almost every field such as social media, travel and transportation, finance, healthcare, ecommerce etc. AI is not only reducing human intervention in business transactions but also helping to do their jobs in better way. AI helps digital marketers to process the data generated in daily transactions faster, which helps them to make

digital strategy more efficiently.

AI Powered Chatbots

It is a software application used to conduct an on-line chat conversation via text or text-to-speech providing direct contact with a live human agent. It helps answer customers' questions and solve problems quickly.

Examples:

- Dominos has built a Facebook Chabot to make the ordering process faster.
- Eva (HDFC Bank) has answered more than 5 million queries from around a million customers with more than 85% accuracy.

AI-Powered Chatbots can respond to multiple user inquiries simultaneously.

Personalization

It helps by understanding the personal preferences, likes, and dislikes of individual customers. Through this, marketers can provide consumers with a personalized experience. Grammarly, an app catch grammar mistakes and sends weekly reports to users on how their writing has improved. Starbucks remembers customers' favorite drinks and preferences and rewards them with perks and freebies based on past activities. Tesla car remembers each driver's preference for seat, steering wheel, mirror location, braking, radio presets and even driving style which is comfortable for drivers. Personalization providing a great customer experience. AI has made it possible. It can be done by collecting and analyzing user data while considering physiographic, demographics, devices, and geographical location.

Programmatic Advertising

There are many kinds of online campaigns are running everyday by many organizations where it requires analysis and research and also have chances of human errors while running campaign. Now it has changed and can be done with AI enable programmatic advertising where it takes care of placement of the ad on the right platform, to the right customer and optimizing the campaign in real time quickly and effectively. Today whatever we see ads most of that are delivered using artificial intelligence mechanism called as programmatic advertising.

Creating and generating Content

Yes, in digital a machine can write content by itself with the help of AI. There are certain areas where AI can useful and help to attract customers to your website.

Example:

AI can write news and reports based on data and information available. Some Intelligent tools like Wordsmith, Articoolo, and Quill are being used by the Forbes to create news, which leads to clicks on their websites, BBC, New York Times also implementing this technology to generate content.

Web Designing

To develop a website, knowledge of HTML, CSS, JavaScript and programming languages is required. But AI has made simple. Popular website developer like Wix uses AI to build websites. Facebook and Google have offered free AI enabled services such as wit.ai and Dialogflow respectively which developers can use to develop a website.

Email Marketing Campaigns

Email marketing is a way to create awareness of product or convey the message by sending mails to multiple recipients at the same time. By taking the advantage of AI capabilities, you can send a customized email for your email marketing campaigns by analyzing user behavior and preferences. AI can help you to sending personalized mail for email marketing campaign Dynamic Pricing

The price of the product or service is not fixed in dynamic pricing; it can be changed as per the demand and supply in the market. AI can be used to set the price of the item dynamically depending on demand, supply, availability, customer profiles, profitability of customer and other factors to maximize sale and profit. The website camelcamelcamel.com tracks the price of the Amazon products over time. Item pricing fluctuates depending on season, availability, popularity and other factors. You might have also experienced that the price of the product after few days get changed automatically when you revisit.

Predicting Customer Behavior

AI can predict the personality traits better than your spouse, friend or even family members. Many marketers are having problem of how to tackle with their audiences. They are trying to understand how to reach target customers in the competitive environment. Customer Service provider are also looking for improving customer satisfaction. AI can help to automate recommendations in real time to improve customer experience. AI tool can help to scan your customer's browsing history to present different options. AI not only gives new insights about your customer but also automatically deliver message to right customer at right time.

Gender of the respondents

Gender	Frequency	Percent
Male	58	52.7
Female	52	47.3
Total	110	100.0

Source: Primary data

Interpretation: Table shows the distribution of gender among a sample of 110 individuals. It indicates that 52.7% are male, while 47.3% are female. The data suggests a slight majority of males in the sample, with females comprising a significant proportion as well. Overall, the gender distribution appears relatively balanced within this sample.

Monthly Income of the Respondents

Monthly Income	Frequency	Percent
Less than RS.30,000	45	40.9
Rs.30,001-Rs.50,000	43	39.1
Above Rs.50,001	22	20.0
Total	110	100.0

Source: Primary data

Interpretation: Table illustrates the distribution of monthly incomes among a sample of 110 individuals. The majority (40.9%) earn less than Rs. 30,000 per month, followed closely by those earning between Rs. 30,001 and Rs. 50,000 (39.1%). A smaller proportion (20.0%) earn above Rs. 50,001 monthly. Overall, it provides insight into the income distribution within the surveyed population.

Platform to Integrate with AI

Platform to Integrate with AI	Frequency	Percent
Social media platforms	32	29.09
E-mail marketing platforms	18	16.4
Content management systems	30	27.3
All of the above	31	28.2
Total	110	100.0

Source: Primary data

Interpretation: Table presents this data suggests that a significant portion of respondents, 28.18%, prefer integrating AI across all platforms mentioned, indicating a desire for comprehensive AI adoption. Social media platforms are the most favored for integration at 29.1%, followed closely by content management systems at 26.36%. E-mail marketing platforms, while still relevant, show slightly lower preference at 16.36%. Overall, there's a clear inclination towards AI integration across diverse digital channels.

Level of complexity with AI tools

Level of Complexity with AI tools	Frequency	Percent
Simple and user friendly	36	32.7
Moderate complexity	39	35.5
Advanced features and customization	35	31.8
Total	110	100.0

Source: Primary data

Interpretation: Table illustrates the distribution of respondent's perceptions regarding the level of complexity of AI tools. The majority, comprising 32.7%, find simple and user-friendly tools preferable. A significant portion, 35.5%, prefers tools with moderate complexity. Meanwhile, 31.8% are inclined towards AI tools with advanced features and customization options, indicating a demand for versatility and depth in functionality. Overall, the data suggests a varied preference among users, highlighting the importance of offering diverse options in tool design.

Results from Implementing AI Tools

Results from Implementing AI Tools	Frequency	Percent
Immediately	28	25.5

Within a few weeks	27	24.5
Within a few months	27	24.5
Within a year	11	10.0
Others	17	15.5
Total	110	100.0

Sources: Primary data

Integration: Table shows the timeline for implementing AI tools. The majority, 74.5%, expect to see results within a few weeks to a few months. Only 10% anticipate results within a year, suggesting a relatively short implementation timeline. 15.5% have other expectations, possibly indicating varied project scopes or complexities.

Business turnover * Impact of AI based on digital marketing

Ho: There is no significant association between the impact of AI based on digital marketing and the business turnover levels in Tirunelveli district.

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		Impact of AI based on digital marketing			Total
		low	moderate	High	
Business Turnover	Count	16	9	16	41
	%	39.0%	22.0%	39.0%	100.0%
50,001-1,00,000	Count	13	4	15	32
	%	40.6%	12.5%	46.9%	100.0%
1,00,001-3,00,000	Count	7	3	7	17
	%	41.2%	17.6%	41.2%	100.0%
Above 3,00,001	Count	3	8	9	20
	%	15.0%	40.0%	45.0%	100.0%
Total	Count	39	24	47	110
	%	35.5%	21.8%	42.7%	100.0%

Chi square	7.640
P value	0.266

Interpretation

The chi-square test result with a p-value of 0.266 suggests that there is no significant evidence to reject the null hypothesis. Thus, we fail to conclude that there is a significant association between the impact of AI on digital marketing and business turnover levels in Tirunelveli district

FINDINGS

- ❖ The study represents majority 52.7% of the respondents are male.
- ❖ The study shows that majority 30% of the respondents comes under the category of 26-35 age group.
- ❖ The study states that, majority 30.9% of the respondents are college level.
- ❖ The study represents majority 40.9% of the respondents earning annual income less than Rs.30,000.
- ❖ The study represents majority 37.3% of the respondents' business turnover is below Rs. 50,000.
- ❖ The study states that, majority 28.2% of the respondents year of experience is 1-3 years.
- ❖ The study represents majority 29.09% of the respondents using social media platforms.
- ❖ The study shows that majority 35.5% of the respondents level of complexity of AI tools is moderate complexity.
- ❖ The study found that majority 25.5% of the respondents' results from implementing AI tools is immediately.
- ❖ The study states that, majority 29.1% of the respondents AI contribution to lead generation in digital marketing is it slows down lead acquisition.
- ❖ The study represents majority 30% of the respondent's way of AI influence customer engagement is it decreases customer interactions.

SUGGESTION

- In Tirunelveli district, AI can revolutionize digital marketing by offering personalized experiences for customers.
- With AI, businesses can analyze customer data to understand preferences and behaviors better.
- This allows for targeted advertising and tailored content, increasing engagement and sales.
- Additionally, AI-powered chatbots can provide instant customer support, enhancing the overall shopping experience.
- Overall, integrating AI into digital marketing strategies can help businesses in Tirunelveli district reach their target audience more effectively and drive growth.

CONCLUSION

The integration of AI in digital marketing is revolutionizing the industry. From personalized experiences and predictive analysis to chatbots and targeted advertising, AI is reshaping the way brands connect with their audience. As AI continues to evolve, it will play a crucial role in SEO, content creation, social media marketing, email marketing and CRM. The future of AI in digital marketing holds exciting opportunities and challenges.

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