

# A Study on the Applicability of Artificial Intelligence Marketing for Creating Data – Driven Marketing Strategies at Cherri Technologies, Pondicherry

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## Abstract

This study examines the use of Artificial Intelligence (AI) in developing data-driven marketing strategies at Cherri Technologies, Pondicherry. A descriptive research approach was applied, collecting data from 103 participants through structure questionnaires. Various statistical tools, such as Chi-square, ANOVA, regression analysis, and correlation, were used to analyse the data. The results indicate a strong association between the integration of AI and the enhancement of marketing strategies, especially in terms of improving efficiency, personalization, and customer engagement. Despite its advantages, obstacles like high implementation costs, ethical concerns, and data privacy issues continue to hinder its full adoption. The findings offer valuable insights for utilizing AI to create innovative marketing strategies, while also addressing the challenges involved. The study highlights the need for ongoing adaptation, ethical considerations, and further research into AI-driven marketing practices.

**KEYWORDS:** Artificial Intelligence (AI), Data-Driven, Personalization, Digital Marketing Strategies.

## 1. INTRODUCTION

Artificial Intelligence (AI) is one of the most revolutionary technological breakthroughs of the 21st century. AI refers to the ability of machines to carry out tasks that would normally require human intelligence, such as learning, reasoning, problem-solving, understanding natural language, and perceiving their environment. The growth of AI is transforming industries, shaping business strategies, and fueling innovation across a wide range of fields. AI is a branch of computer science focused on developing systems that can replicate human-like intelligence and behaviour. It includes a variety of technologies and techniques designed to enable machines to process data, learn from it, and make decisions with minimal human input.

## OBJECTIVE

- To identify the artificial intelligence challenges of a company.
- To analyse the impact of artificial intelligence on marketing efficiency.

## 2. REVIEW OF LITERATURE

**Chaffey and smith (2017)** The authors conclude that AI empowers marketers by transforming raw customer data into valuable insights that improve customer engagement, segmentation, and personalized marketing efforts. AI's automation of data processing enhances strategic decisions and customer targeting.

**Kietzmann, Paschen & Treen (2018)** The study concludes that AI can significantly enhance customer satisfaction by analysing and leveraging large amounts of customer data. AI helps create dynamic and adaptive marketing strategies, offering real-time personalization and improving customer experiences through targeted campaigns.

**Balducci & Marinova (2018)** The authors conclude that AI enables marketers to extract insights from unstructured data sources, such as social media and customer reviews. AI's ability to analyze this data creates opportunities for more tailored marketing strategies, improving customer engagement and brand loyalty.

**Khan, Rahmani, & Shah (2018)** is typically a deep-learning, feedforward neural network that contains at least one convolutional layer. Convolutional layers automatically identify patterns in data (usually images), and stacking a sequence of convolutional layers allows the network to identify increasingly complex patterns. For instance, the first layer of a convolutional neural network may learn to identify horizontal, vertical, and diagonal edges in a picture; the second layer might learn to combine these edges to identify eyes, noses, and mouths; and the third layer might combine these patterns to identify visages.

**Wilson and Daugherty (2018):** They discussed AI's capacity to augment human decision-making in marketing. AI tools refine strategies by providing accurate data-driven insights, enabling better customer engagement. The study highlighted how AI balances automation with creativity for optimal results.

**Haenlien & Kaplan (2019)** The authors conclude that AI will continue to reshape marketing by enabling more efficient data-driven decision-making. AI's capacity to analyze vast datasets in real time is essential for developing strategies that are more adaptive to consumer needs and market changes.

## 3. RESEARCH METHODOLOGY

Research methodology is the structured framework outlining how data is collected and analysed in a study. It ranges from simple description to intricate experimental designs. For this study focusing on marketing strategies and their impact on sales factors, descriptive research has been chosen. This design incorporates surveys and drives fact-finding enquires offering a well- suited approach to understand and analyse these elements effectively.

### 3.1 Sampling Plan:

The study employed a simple random sampling technique, ensuring participants were chosen impartially from the population. This method provides every individual within the group an equal likelihood of selection, maintaining fairness and objectivity. The selected sample units were based on accessibility and relevance to the research objectives.

#### 3.1.1 Sample Size

The sample size of the study is 103. A structured questionnaire with 25 questions was distributed and the response are collected for analysis.

#### 3.1.2 Sampling Technique

The sampling technique used in this project is Convenience Sampling. This method was chosen because

the survey was conducted directly among the clients of Cherri Technologies who were readily available and willing to participate in the study.

**3.1.3 Population**

The population for this study consists of the clients of Cherri Technologies, a technology company based in Pondicherry. These clients are businesses or individuals who have engaged with the company, particularly in the domain of Artificial Intelligence (AI) solutions and services.

**4. DATA ANALYSIS AND INTERPRETATION**

**CHI-SQUARE:**

**HYPOTHESIS**

**NULL HYPOTHESIS**

There is no association between Artificial Intelligence and Artificial Intelligence in Next 5 years.

**ALTERNATIVE HYPOTHESIS**

There is a association between Artificial Intelligence and Artificial Intelligence in Next 5 years.

**TABLE:1 CHI-SQUARE TEST**

AI \* Next5years

		Next5years		Total
		Yes	No	
<b>AI</b>	excellent	7	3	10
	good	37	8	45
	average	18	12	30
	poor	4	2	6
	very poor	4	8	12
<b>Total</b>		70	33	103

<b>Chi-Square Tests</b>			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.709 <sup>a</sup>	4	0.020
Likelihood Ratio	11.562	4	0.021
Linear-by-Linear Association	8.282	1	0.004
N of Valid Cases	103		

**INFERENCE**

The Pearson chi-square (0.020), Likelihood Ratio (0.021), and Linear-by-Linear Association (0.04) all exceed the chosen significant level (CV>TV) of 0.05 for the association between Artificial Intelligence and Artificial Intelligence in Next 5 years. This implies that there is a significant relationship between Artificial Intelligence and Artificial Intelligence in Next 5 years based on the provided data. Thus, Alternative hypothesis accepted.

**RESULT:**

There is no association between Artificial Intelligence and Artificial Intelligence in Next 5 years.

**REGRESSION**

**HYPOTHESIS**

**NULL HYPOTHESIS**

There is no significant relationship between the High speed and efficiency in marketing and regulations when using artificial intelligence in marketing.

**ALTERNATIVE HYPOTHESIS**

There is a significant relationship between the High speed and efficiency in marketing and the regulations when using artificial intelligence in marketing.

**TABLE:2 REGRESSION TEST**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.687 <sup>a</sup>	.472	.467	.95776

a. Predictors (CONSTANT) Do you agree that artificial intelligence has high speed and efficiency in marketing?

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.738	.213		3.464	.001
	Do you agree that artificial intelligence has high speed and efficiency in marketing	.690	.073	.687	9.501	.000

Dependent variable: How satisfied are you with your company’s ability to comply with regulations when using artificial intelligence in marketing.

**INFERENCE**

The calculated p-value (0.000) is less than the significance level (0.05) for the predictor variable. This indicates that there is a significant relationship between agreement with the statement that artificial intelligence has high speed and efficiency in marketing and the dependent variable. Thus, the alternative hypothesis is accepted.

**RESULT:**

There is no significant relationship between the High speed and efficiency in marketing and regulations when using artificial intelligence in marketing.

**4. FINDINGS**

**CHI-SQUARE**

It is inferred that There is a association between Artificial Intelligence and Artificial Intelligence in Next 5 years, as evidenced by a Pearson Chi-Square value of 11.709 and a p-value of 0.020. This implies that there is a significant relationship between Artificial Intelligence and Artificial Intelligence in Next 5 years based on the provided data.

**RESULT:**

The Alternative hypothesis(H1) is accepted, confirming that There is a association between Artificial Intelligence and Artificial Intelligence in Next 5 years.

**REGRESSION**

It is inferred that, the p-value (0.001) is less than the significant level (CV>TV) of 0.05 for the predictor variable. Hence, we reject the Null hypothesis, so there is no significant relationship between the High speed and efficiency in marketing and the regulations when using artificial intelligence in marketing.

**RESULT:**

The Alternative hypothesis(H1) is accepted, there is a significant relationship between the High speed and efficiency in marketing and the regulations when using artificial intelligence in marketing.

**5. CONCLUSION**

The study concludes that Artificial Intelligence significantly enhances data-driven marketing strategies by enabling real-time customer insights, improving personalization, and optimizing advertising campaigns. AI empowers marketers to make informed decisions, fostering better customer relationships and increasing efficiency. However, challenges such as high implementation costs, lack of expertise, and ethical concerns need to be addressed for effective integration. By adopting AI responsibly and strategically, businesses like Cherri Technologies can maintain a competitive edge in the evolving digital landscape. This research serves as a foundation for further exploration into AI's role in transforming marketing strategies, with a focus on scalability and innovation.

**6. REFERENCE**

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