PROJECT REPORT

"AN OVERVIEW OF THE USE OF ARTIFICIAL INTELLIGENCE IN MARKETING"

Submitted to

G. S. College of Commerce & Economics, Nagpur

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Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

In partial fulfillment for the award of the degree of

Bachelor of Business Administration

Submitted by

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Academic Year 2022 – 23

G. S. College of Commerce & Economics, Nagpur

Academic Year 2022 – 23

CERTIFICATE

This is to certify that " **YASH SHEKHARE"** has submitted the project report titled **" AN OVERVIEW OF THE USE OF ARTIFICIAL INTELLIGENCE IN MARKETING''**, towards partial fulfillment of **BACHELOR OF BUSINESS ADMINISTRATION** degree examination. This has not been submitted for any other examination and does not form part of any other course undergone by the candidate.

It is further certified that he/she has ingeniously completed his/her project as prescribed by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

PROF. SHUBHANGI JEPULKAR   **DR. AFSAR SHEIKH**
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<u>DECLARATION</u>

I here-by declare that the project with title **"AN OVERVIEW OF THE USE OF ARTIFICIAL INTELLIGENCE IN MARKETING ''** has been completed by me in partial fulfillment of **BACHELOR OF BUSINESS ADMINISTRATION** degree examination as prescribed by Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and this has not been submitted for any other examination and does not form the part of any other course undertaken by me.

YASH K. SHEKHARE

Place:

Date:

G. S. College of Commerce & Economics, Nagpur

Academic Year 2022 – 23

ACKNOWLEDGEMENT

With immense pride and sense of gratitude, I take this golden opportunity to express my sincere regards to DR. SWATI KATHALEY, Principal, G.S. College of Commerce & Economics, Nagpur.

I am extremely thankful to my Project Guide PROF. SHUBHANGI JEPULKAR for his/her guideline throughout the project. I tender my sincere regards to Co-Ordinator, PROF. AFSAR SHAIKH for giving me outstanding guidance, enthusiastic suggestions and invaluable encouragement which helped me in the completion of the project.

I will fail in my duty if I do not thank   the non-Teaching staff of the college for their Co-operation.
I would like to thank all those who helped me in making this project complete and successful.

YASH K. SHEKHARE

Place:
Date:

INDEX

INTRODUCTION

CHAPTER 1

INTRODUCTION

WHAT IS MARKETING ?

Marketing is the process of creating, promoting and distributing products and services to customers. It is the process of researching, advertising, selling and distributing a product or service to a target audience. It involves understanding consumer needs and wants and creating a product or service that meets those needs and wants. It also involves developing pricing strategies, promotional tactics and distribution channels that will lead to the greatest customer satisfaction.

WHAT IS ARTIFICIAL INTELLIGENCE ?

Artificial intelligence is the creation of intelligence machines which are capable of thinking and reacting like humans, John McCarthy coined the term "Artificial Intelligence" and McCarthy was one of the founders of the discipline of artificial intelligence. Artificial Intelligence (AI) refers to the ability of machines to perform tasks that would normally require human intelligence to accomplish. AI technologies use algorithms, statistical models, and other computational techniques to learn from data and make predictions or decisions based on that learning.

HISTORY OF MARKETING

Industrial Revolution (1760-1840s): The development of mass production techniques led to an increase in supply, and marketers began to focus on creating demand for their products through advertising and salesmanship.

Rise of Advertising (late 1800s): The introduction of mass media, such as newspapers and magazines, provided new opportunities for businesses to reach a larger audience through advertising.

Marketing as a Discipline (early 1900s): The first marketing textbooks were published, and marketing began to be recognized as a distinct field of study.

Consumer Culture (1920s-1950s): The growth of consumerism in the post-World War II era led to an emphasis on branding, packaging, and product design as key elements of marketing.

Digital Age (1990s-present): The widespread adoption of the internet and digital technologies has revolutionized marketing, with the rise of online advertising, social media marketing, and e-commerce.

EVOLUTION OF MARKETING TO ARTIFICIAL INTELLIGENCE GENERATION

Marketing has undergone a significant transformation over the years, from traditional methods like print and TV advertising to digital marketing through social media, email, and search engines.in recent years, the rise of Artificial Intelligence (AI) has further revolutionized marketing, allowing companies to analyze data and automate processes in ways that were previously impossible.

One significant way AI has impacted marketing is through data analysis. With the increasing amount of data available to marketers, AI can help to analyze and interpret that data to gain insights into consumer behaviour, preferences, and needs. AI can also be used to personalize marketing messages and experiences for individual consumers, making them more relevant and engaging.

HISTORY OF ARTIFICIAL INTELLIGENCE :

The birth of AI: The concept of AI was first introduced in the 1930s by mathematician and philosopher Alan Turing, who proposed the idea of a machine that could simulate human intelligence.

The 1950s: In the 1950s, a group of researchers including John McCarthy, Marvin Minsky, Claude Shannon, and Nathaniel Rochester organized a conference at Dartmouth College to discuss the possibility of creating machines that could think like humans. This conference is widely considered to be the birth of AI as a field of study.

The 1960s and 1970s: During the 1960s and 1970s, AI research focused on developing rule-based systems, which used a set of logical rules to make decisions. These systems were used for applications such as expert systems and natural language processing.

The 1980s and 1990s: In the 1980s and 1990s, AI research shifted towards developing machine learning algorithms, which could learn from data without being explicitly programmed. This led to the development of neural networks, which were modeled after the structure of the human brain.

The 2000s and beyond: In the 2000s and beyond, advances in computing power and data storage have enabled the development of deep learning algorithms, which use multiple layers of neural networks to perform complex tasks such as image recognition and natural language understanding. Other areas of AI research include robotics, cognitive computing, and autonomous systems.

HOW IS ARTIFICIAL INTELLIGENCE IMPACTING MARKETING ?

Al Marketing is quickly becoming an important ingredient that can no longer be ignored, so what can marketers expect from Al both now and in the future, and how exactly will it impact their overall business strategy?

AI is transforming the way marketers approach their campaigns. AI enables marketers to gain a deeper understanding of their customers and to create personalized experiences for them. AI can be used to analyze customer data and to identify customer segments with similar characteristics. This can then be used to target specific audiences with tailored content, increasing engagement and driving conversions.

SMARTER SEARCH :

Today's digital consumer can find information faster and more efficiently than ever before. Thanks to a combination of social media and lightening fast search engines like Google, people no longer spend excessive amounts of time sifting through information for what they need. Google changes and improves its search algorithm almost daily and marketer must recognize this and ensure their content stays optimized according to these changes.

SMARTER ADVERTISEMENTS:

Smarter ads will likely be one of the main reasons Al Marketing will have such an important and lasting impact in the years to come. The ability for brands to use Al Marketing to develop key strategy.

KEY USES OF ARTIFICIAL INTELLIGENCE IN TODAY MARKETING
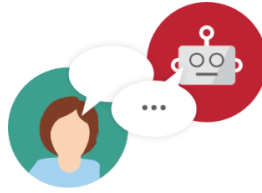
CHATBOTS:-

If there's one type of Al that businesses see as a game-changer, its chatbots. Chatbots are already on numerous websites, as they excel at answering customers: frequently asked questions. The key fascination with chatbots is the impact they can have on the customer experience. For some businesses, there aren't enough employees or hours in the day to answer customer queries quickly.

CREATING - GENERATING CONTENT:-

What? A machine that writes by itself and creates content from scratch? There's no way! But, I have news for you...

There is a way! And even though Al still can't write its own political opinion for a newspaper column or a blog post on the best and most practical advice for a specific industry, there are certain areas in which content created by Al can be useful and help attract visitors to your website.

CONTENT CURATIONS:-

Al is not only able to generate content; it can also curate it. Content curation by artificial intelligence will make it possible to better connect with visitors on certain websites and show them more relevant content. This technology is commonly used to make personalized content recommendations that the user may find interesting, such as the typical. "people who buy X also buy Y," like we constantly see on Amazon.

PRODUCTION & CONTENT RECOMMENDATIONS :-

Fast forward to 2019, and some of the most successful digital companies have built their product offerings around the ability to provide highly relevant and p sonalised product or content recommendations - including Amazon, Netflix and Spotify. As Lori Goldberg wrote in a brief history of artificial intelligence in advertising for Econsultancy.

EMAIL MARKETING :-

Brands are using the power of Al to personalize email marketing campaigns based on preferences and user behaviours. This makes it possible to better connect with them and, with a hit of luck, turn them into clients.

DIGITAL ADVERTISING:-

Digital advertising is, without a doubt, the area of digital marketing that's most successfully adopted artificial intelligence.

For example, Facebook and Google ad platforms already use machine learning and artificial intelligence to find people more prone to making the advertiser's desired action.
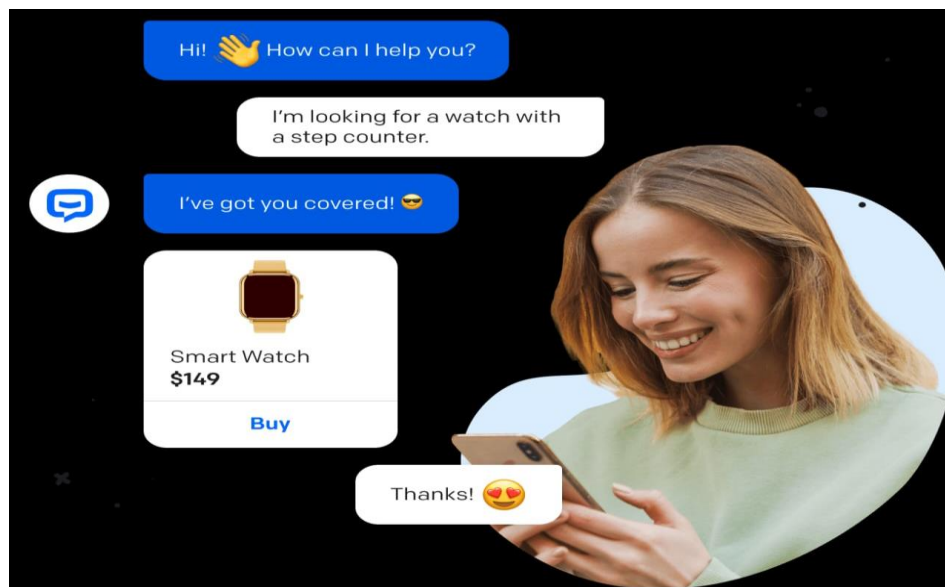
HOW ARTIFICIAL IINTELLIGENCE SUPPORT

Artificial Intelligence (AI) can support various areas of human life in many ways. Here are some examples:

HEALTH CARE : AI can help doctors and healthcare professionals diagnose diseases, analyze medical images, and develop treatment plans. AI-powered tools can also assist with patient monitoring and management, providing more personalized and effective care.

EDUCATION : AI can support education by providing personalized learning experiences for students, automating administrative tasks, and helping teachers to identify areas where students need extra help.

BUSINESS : AI can support businesses by automating routine tasks, improving customer service, and analyzing data to gain insights into consumer behavior and market trends. AI-powered tools can also optimize supply chain management, reduce waste, and increase efficiency.

SOCIAL SERVICES : AI can support social services by identifying patterns of fraud and abuse in welfare programs, providing personalized support for people with disabilities or mental health conditions, and optimizing resource allocation to support vulnerable populations.

8 Ways Intelligent Marketers Use Artificial Intelligence:-

AUTOMATED IMAGE RECOGNITION

If you've recently used Google Photos, you may have noticed how good the system has become at recognizing people and images. In recent years, software has become superhuman at recognizing people, with accuracy exceeding 99%.

INTELLIGENT E-MAIL CONTENT CURATION

Your team often spends hours compiling and scheduling weekly emails to multiple customer segments. Even with smart subscriber segmentation, you can't deliver a personalized email to every single customer. Yet, a 2016 study by Demand Metric found that 80% of marketers say personalized content is more effective than "unpersonalized" content.

AI-ENHANCED PPC ADVERTISING

Most marketers allocate their pay-per-click budgets to AdWords and Facebook. According to eMarketer, Google controls 40.7% of the U.S. digital ad market, followed by Facebook with 19.7%.

SMART CUSTOMER ENGAGEMENT

Machine-learning algorithms also can help identify disengaged customer segments that are about to churn or leave for a competitor.AI-powered tools in this category can help gather data, build a predictive model, and test and validate that model on real customers. That information can indicate what stage of churning the person is in. While quick-churn customers (users who abandon a product shortly after starting to use it) are difficult to re-engage, late-churn customers (those who have a long-lasting relationship with your brand) can be incentivized to keep using your product.

AI-POWERED CUSTOMER INSIGHTS

Where it would take humans an immense amount of time to crunch all the numbers and match them to customer's behavioral patterns, AI can give marketing insights on the fly.Dynamic Yield helps the likes of Under Armour, Sephora, and Urban Outfitters build actionable customer segments by using an advanced machine-learning engine

AI - POWERED CONTENT

Natural-language generation holds tremendous potential in making the work of content creators more efficient. By 2018, Gartner predicts, 20% of

AI-POWERED CONTENT CREATION

Natural-language generation holds tremendous potential in making the work of content creators more efficient. By 2018, Gartner predicts, 20% of all business content will be authored by machines.

CONTENT-CREATION CHATBOTS

If you've recently chatted online with a customer service rep, your helpful correspondent named Ashley or Jen might have held a little secret – she's a bot.

From fashion to health to insurance, intelligent chatbots are providing borderline magic customer support. And in some cases, they're better at creating personalized content than humans.

HIGHLY PERSONALIZED WEBSITE EXPERIENCE AND BETTER

While AI's capacity is far from being able to build new websites from the ground up, it can help you enhance your visitor experience with intelligent personalization on your site.

COMPANY PROFILE

CHAPTER 2

COMPANY PROFILE

INDUSTRY PROFILE

The Artificial intelligence (AI) is increasingly being used in marketing to improve customer experience, optimize marketing campaigns, and increase revenue. The marketing industry has been quick to adopt AI technologies, with many companies integrating AI into their strategies and operations. Here is a brief overview of the industry profile of artificial intelligence in marketing:

MARKET SIZE & GROWTH : The AI in marketing market is expected to grow at a compound annual growth rate (CAGR) of 26.3% between 2021 and 2028, reaching a market size of $32.40 billion by 2028, according to a report by Grand View Research.

KEY APPLICATION : AI is being used in various applications in marketing, including customer segmentation, predictive analytics, chatbots, image and speech recognition, and recommendation engines. AI can help marketers personalize their messaging, improve lead scoring, and optimize marketing campaigns for better results.

KEY PLAYER'S : Some of the key players in the AI in marketing market include IBM Corporation, Google, Microsoft Corporation, Salesforce, Adobe Systems Incorporated, and Amazon Web Services.

CHALLENGE & CONCERN : While AI has the potential to revolutionize marketing, there are concerns around data privacy, bias, and the ethical implications of using AI. Marketers need to be aware of these issues and ensure that they are using AI in a responsible and transparent way.

FUTURE OUTLOOK : The use of AI in marketing is expected to continue to grow in the coming years, as more companies adopt AI technologies and integrate them into their marketing strategies. As AI technology continues to evolve, we can expect to see even more advanced applications of AI in marketing, such as personalized video content and augmented reality experiences.

COMPANIES THAT WORK IN ARTIFICIAL INTELLIGENCE

- ## IBM

Watson Campaign Automation: This solution uses AI and machine learning to help marketers deliver personalized and relevant messages to customers across multiple channels, including email, SMS, and social media. Watson Assistant for Marketing: This solution uses natural language processing (NLP) and machine learning to create conversational marketing experiences that can help businesses engage with customers in a more personalized way.

Watson Discovery for Marketing: This solution uses AI-powered search and content analysis to help marketers uncover insights and trends in their data, and make data-driven decisions about their marketing campaigns. Watson Advertising: This solution uses AI to help advertisers create personalized and engaging ads across multiple channels, including TV, digital, and out-of-home advertising.

IBM Customer Experience Analytics: This solution uses AI and machine learning to analyze customer behavior and provide insights into customer journeys, helping businesses optimize their marketing and customer engagement strategies.

- ## MICROSOFT

Microsoft Dynamics 365 Marketing: This solution uses AI to help businesses create and deliver personalized marketing messages across multiple channels, including email, social media, and SMS.

Azure Cognitive Services: These services enable businesses to add intelligent features to their applications, including language understanding, speech recognition, and computer vision.

Microsoft Advertising: This platform uses AI and machine learning to help businesses optimize their advertising campaigns and target the right audience with the right message.

Microsoft Power BI: This business intelligence tool uses AI to help businesses analyze their marketing data and gain insights into customer behavior and trends.

Microsoft Social Engagement: This solution uses AI to help businesses monitor social media conversations and sentiment, and gain insights into customer behavior and preferences.

● <u>AMAZON WEB SERVICE</u>

Amazon Personalize: This solution uses machine learning to create personalized recommendations and experiences for customers, based on their behavior and preferences.

Amazon Polly: This service enables businesses to convert text into lifelike speech, allowing them to create engaging voice-enabled experiences for their customers.

Amazon Rekognition: This service uses computer vision to analyze images and videos, enabling businesses to automatically tag and categorize their content.

Amazon Comprehend: This service uses natural language processing (NLP) to analyze text and gain insights into customer sentiment, preferences, and behavior.

Amazon SageMaker: This service provides a range of tools and workflows for building, training, and deploying machine learning models, enabling businesses to create customized solutions for their marketing needs.

● <u>CHATGPT</u>

Customer support: ChatGPT can be integrated into a business's website or social media channels to provide automated customer support. ChatGPT can answer frequently asked questions, provide guidance on product selection, and assist with basic customer service inquiries.

Content creation: ChatGPT can be used to generate content for a business's website, blog, or social media channels. ChatGPT can create articles, social media posts, and other content based on a business's brand voice and marketing objectives.

Personalization: ChatGPT can be used to create personalized experiences for customers. By analyzing customer data and behavior, ChatGPT can create customized product recommendations and tailored marketing messages.

Market research: ChatGPT can be used to conduct market research by analyzing customer feedback and social media conversations. ChatGPT can identify trends and insights that can inform a business's marketing strategies and product development.

LITERATURE REVIEW

CHAPTER 3

LITERATURE REVIEW

Al is already an integral part of the business landscape, particularly in the U.S. And with good reason: In a recent Deloitte survey of 1.100 U.S. executives from companies considered to be early Al adopters, 82% reported a positive return on their investment for their Al initiatives. "Many of the complex challenges businesses need to solve today require humans working with machines to gain an advantage," says David Rudini, principal and chief analytics officer. Deloitte Consulting LLP. "In order to achieve true ROI from your Al investments, it requires defining specific business outcomes, and understanding the costs, cascading impacts, and talent implications at the onset."

When it comes to marketing and advertising. Al is extremely pervasive, with at least 80% of the digital media market likely to be using some kind of Al in advertising this year. In fact, modem digital advertising as we know it today wouldn't exist without Al. Al is used to profile visitors to a website or app, then that information is used to target and deliver ads to a network of platforms and services that play different roles at each stage of the advertising supply chain.

We're seeing Al analyze customer behavior to make smart recommendations based on attributes such as age, gender, location, and millions of other data points that marketers can use to reach the right customer at the right time. And we're already seeing unique web pages that are built on the fly just for individual consumers a custom shopping catalog for one, compliments of Al Al-powered conversational intelligence like chatbots and voice-enabled platforms like Alexa are also radically changing our ideas of what digital marketing can do.

Brands want to reach the right consumers, at the right time, with the right message and Al-enabled platforms and tools are making this a reality.

Who is the founder of Deepmind the Al Company of Google, "Artificial intelligence is the art to make machines intelligent (Ahmed, 2015)," the most widely accepted definition and also a well-fitting one since Al is a broader term used for a number of a variety of indicators. Under the Al, there are some subcategories including machine learning and deep learning which manufacture real-world apps of Al. including search suggestions, voice recognition, virtual assistants and image recognition. The term, Al, refers to the computer-assisted analytical course that attempts to form automated systems which can be labeled as intelligent. It is the automated system that inputs data to conduct tasks of intelligent beings in a manner that increases the success rate. According to Guruduth Banavar, supervisor of Al research by IBM, there are a broader variety of various types of Artificial intelligence, therefore, it can be considered as a collection of technologies(Kaput, 2016). These technologies have various functions and come in a variety of prices, but the aim of all of them is almost the same which is to mimic human intelligence in technologies to make the functions intelligent.

The progressions made in Al and its executions in various domains have resulted in the advancement of Al technologies that is evident to be valuable and beneficial for marketing professionals. Since more emphasis is on digital marketing as compared to the traditional methods of marketing, the ample data is there for usage of Al technologies. Al technologies have the ability to help marketing managers in various functions including lead generation, market research, social media controlling and customization of consumer experiences (Steme, 2017) Al technologies in the field of marketing can be broadly assified to customized Al systems for the customized usage and to vendor provided and software-as-a-service (SaaS) solutions which include Al aspects. Customized and real Al technologies can be manufactured by the internal Al department of companies, outsource providers or it can either be a mix of both.

The various vendor-provided solutions of Al also need customization for personal usage cases (Sterne, 2017) A majority of software houses and providers have given a lot in Al and technology organizations such as IBM is giving their own marketing computerized solution with IBM Watson Campaign Automation.

IBM Watson Campaign Automation has Al by default which is built in the solution. which is considered as the leading provider of Customer Relationship Management (CRM) software has also begun to provide Al service along with the Salesforce Einstein, which is also executed in the solution (Steme, 2017), Paul Roetzer, who is the CEO of Marketing Artificial Intelligence Institute, came up with the structure for Al in marketing which i commonly known as SPs of Marketing Al. The structure was formed for simplifying and visualizing the ground and it is in line with the research carried out with different Al companies and engineers on how marketing can take benefit from Al (Roetzer, 2017)

In today's world. Al is used to support marketing managers in various tasks and operations including digital marketing (buying), web development, SEO, external email marketing, lead generation, social media monitoring and A/B testing (Davenport, 2017)

The earlier concepts and principles have been examined to tackle the marketing related issue since a very long time (Wierenga & van Bruggen, 2000) but the major usage and implementation of Al in marketing have begun to arise in past few years (Wierenga. 2010). Al has been implemented in most of the companies in today's world but there is still not a high-level of implementation in different companies. Different marketers have shown their interest in adopting Al soon and around 98% of them are now preparing for executing it completely. Whereas, only 20% of the marketers have implemented one or more Al solutions in 2017 in the business (Bughin, McCarthy & Chui, 2017). The mismatch between the preparation and execution acts as a major pointer that it is not very late for the implementation of Al in marketing, opposing to the fact that how the major buzz about Al may result in believing of people that they need to implement it very soon. However, applications of Al in the field of marketing are quickly developing with a number of different software and services coming up for the companies to use for their brands. The researchers also predicted that 2018 and the coming years will be a tuming point in the diffusion of Al in the field of marketing.

PROBLEM DEFINITIONS

CHAPTER 4

PROBLEM DEFINITION

A possible problem definition for the use of AI in marketing could be:

"The use of AI in marketing presents both opportunities and challenges. While AI has the potential to transform marketing by enabling personalized experiences, predictive analytics, and automation, it also raises concerns around privacy, ethics, and the impact on human jobs. Additionally, there is a need to ensure that the use of AI in marketing is aligned with the organization's overall strategy, and that marketers have the necessary skills and resources to effectively leverage AI for their campaigns."

SOLUTION DEFINITION

A possible solution definition for the use of AI in marketing could be:

"To effectively leverage the benefits of AI in marketing while addressing the challenges, organizations can develop an AI strategy that is aligned with their overall business objectives and values. This strategy should include guidelines and best practices for the ethical use of AI, data privacy, and the protection of customer information. It is also important to invest in the necessary resources, such as skilled personnel and AI tools, to ensure that the technology is effectively integrated into marketing campaigns. Additionally, organizations can explore the use of AI to enhance customer experiences and engagement, such as through personalized recommendations and chatbots."

OBJECTIVE OF STUDY

CHAPTER 5

<u>OBJECTIVES OF THE STUDY</u>

The objective of a study on the use of AI in marketing could be:

1. To identify the benefits and challenges of implementing AI in marketing strategies

2. To understand the impact of AI on consumer behaviour and preferences

3. To evaluate the effectiveness of AI in marketing campaigns

4. To analyze the role of AI in enhancing customer experiences and engagement

5. To assess the impact of AI on job roles and the future of work in marketing

6. To provide recommendations for organizations on how to leverage AI in marketing effectively and responsibly.

SCOPE OF STUDY

5.2

SCOPE OF STUDY

1. Review of the current state of AI in marketing and its impact on the industry

2. Analysis of the potential benefits and challenges of AI in marketing

3. Examination of the impact of AI on consumer behaviour and preferences

4. Assessment of the skills and resources required for effective implementation of AI

5. Evaluation of the effectiveness of AI in marketing campaigns through case studies

6. Exploration of the role of AI in enhancing customer experiences and engagement

7. Examination of the impact of AI on job roles and the future of work in marketing

LIMITATIONS OF STUDY

5.3

LIMITATION OF STUDY

1. **Data Dependence on technology:** The use of AI in marketing relies heavily on technology, and any disruption to the technology can lead to problems in the marketing strategy.

2. Cost: Implementing AI in marketing can be expensive, and not all companies may have the resources to invest in this technology.

3. Complexity: AI is a complex field, and studying its use in marketing requires a deep understanding of both marketing and AI.

4. Lack of standardization: There is currently no standardization in the use of AI in marketing, which can make it difficult to compare and replicate results.

5. Rapidly evolving field: AI technology is constantly evolving, and keeping up with the latest developments can be challenging.

RESEARCH METHODOLOGY

CHAPTER 6

<u>RESEARCH METHODOLOGY</u>

RESEARCH METHODOLOGY

The research work has used the primary and secondary data to accomplish the objectives. Primary data was collected via interview with the help of questionnaire, sample population was Marketing Professionals and the sample size is 80 and the secondary data was collected through journals, articles and the past research done on this topic also internet was the great support. The following tools have been used as methodology in this dissertation.

OBJECTIVE OF STUDY :

The research is aimed to have the following objectives

1. To find out the impact of Artificial Intelligence on Marketing

2. To find out the transformation of Marketing by Artificial Intelligence.

3. To reconnect solutions or strategies for the effective use of Al technologies in marketing

RESEARCH QUESTION :

1. What is the Impact of Artificial Intelligence on Marketing?

2. What is the recommendation for the effective use of Al technologies in Marketing?

3. What are the different challenges in the use of Al technologies in Marketing?

RESEARCH DESIGN - Descriptive, as the research consists of survey & study on the impact of artificial intelligence on marketing operations done by some companies

SAMPLING TECHNIQUE - Convenience Sampling (Part of Non-Probability Sampling Methods).

Instrumental - Questionnaire

TOOLS OF DATA COLLECTION

1. Primary Data Responses from the questionnaire.

2. Secondary Data-Companies Profiles, Research Papers, Journals, articles and reviews.

HYPOTHESIS

CHAPTER 7

<u>HYPOTHESIS</u>

HYPOTHESIS

Hypothesis is usually considered as the principal instrument in research. Its main function is to suggest new experiments and observations. In fact, many experiments are carried out with the deliberate objects of testing hypothesis.

ALTERNATIVE HYPOTHESIS- H1: Companies that use AI in their marketing strategies have significantly better marketing performance than companies that do not use AI..

NULL HYPOTHESIS- H0: There is no significant difference in marketing performance between companies that use AI and companies that do not use AI.
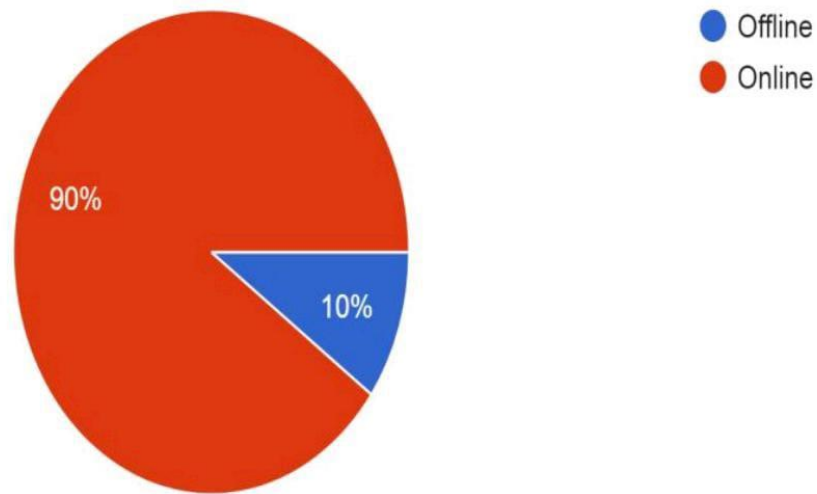
DATA ANALYSIS & INTERPRETATION

CHAPTER 8

DATA ANALYSIS & INTERPRETATION

WHICH KIND OF MARKETING IS EFFECTIVE NOW :

80 responses

Response	No. of Respondents
Offline	8
Online	72

From the findings it can be said that maximum people voted for the online mode of marketing as their preference considering today's digital world and only 8 opted for the offline mode which is considered as the traditional style of selling the products.
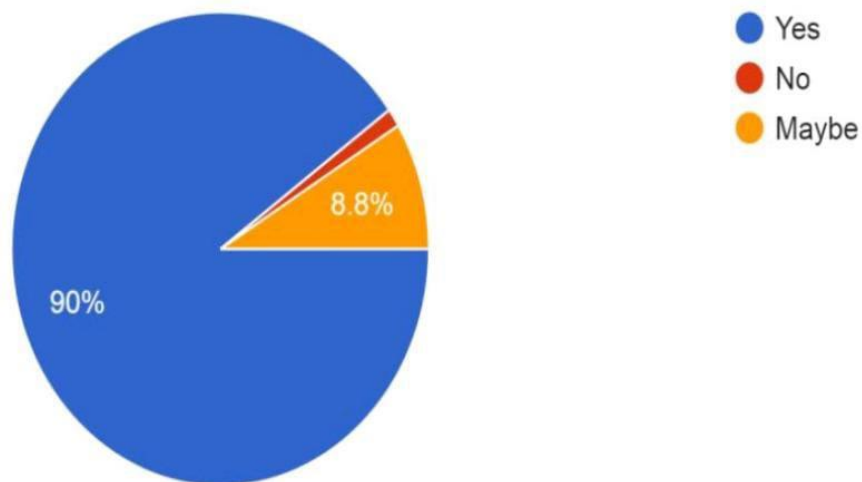
Mean - 40

Standard Deviation-45.25

Variance - 2048

DID YOU THINK ARTIFICIAL INTELLIGENCE IS FUTURE IN DIGITAL MARKETING :

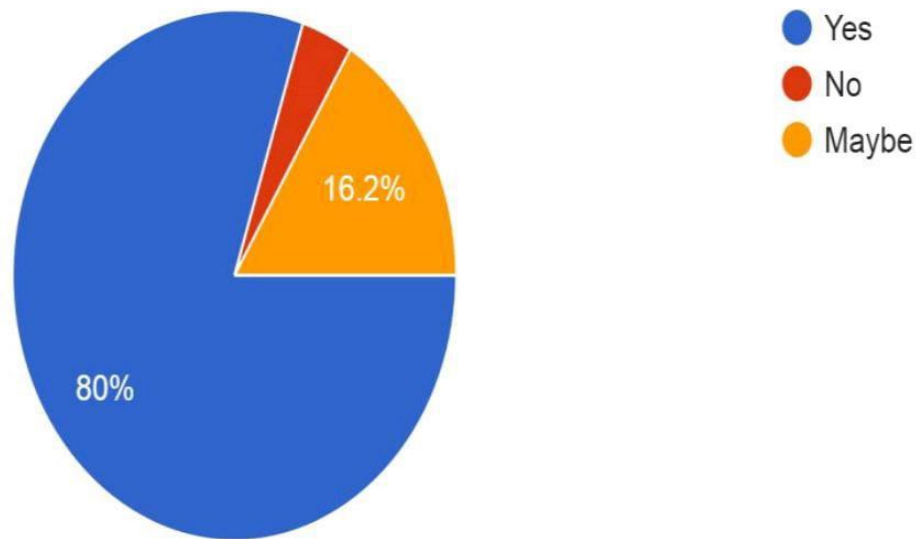| Responses	No. of Respondents
Yes	72
No	1
Maybe	7

80 responses

As good as 90% which is 72 people out of 80 are very well aware of the term social media marketing, 7 people being partially aware of this and only 1 have answered for no as he/she might not know about this from of marketing.

Mean - 26.66

Standard Deviation-39.37

Variance 1550.33

ARTIFICIAL INTELLIGENCE IMPACT IN CUSTOMER RECOMMENDATION :

Age- group	No. of Respondents
15-20	20
20-25	52
25-30	8

There are total 80 people participating in this from different age groups- majority are from 20-25 years group i.e. 52 (65% of the total population), second comes from 15-20 years group i.e. 20 (25% of the total population) and lastly from 25-30 years group counting to 8 (10% of the total population).

IN SOCIAL MEDIA WHERE THE MOST OF ARTIFICIAL INTELLIGENCE IS USED :
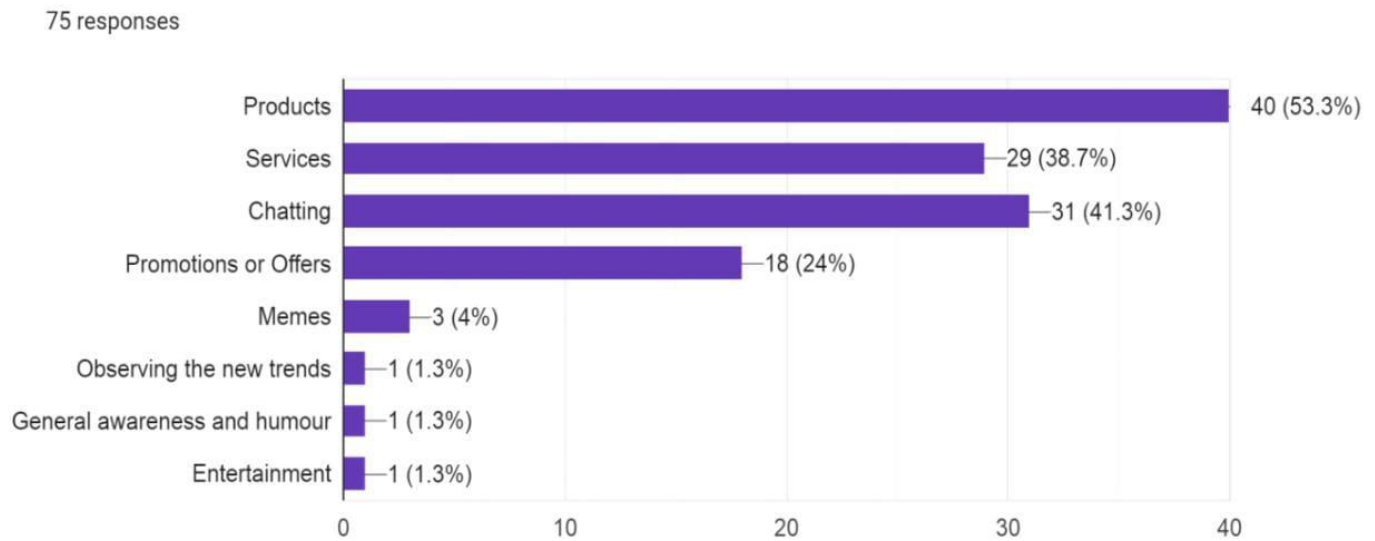
75 responses

Responses	Respondents in %
Products	53.3%
Services	38.7%
Chatting	41.3%
Promotions and offers	24%
Others (memes, entertainment, observing the new trends, general awareness & humor)	7.9%

In the above mentioned question, what are your interests on social media was asked from the participants for which they can go for more than one option. The top options for which people voted majorly are products (53.3%), services (38.7%), chatting (41.3%) and promotions/ offers (24%).
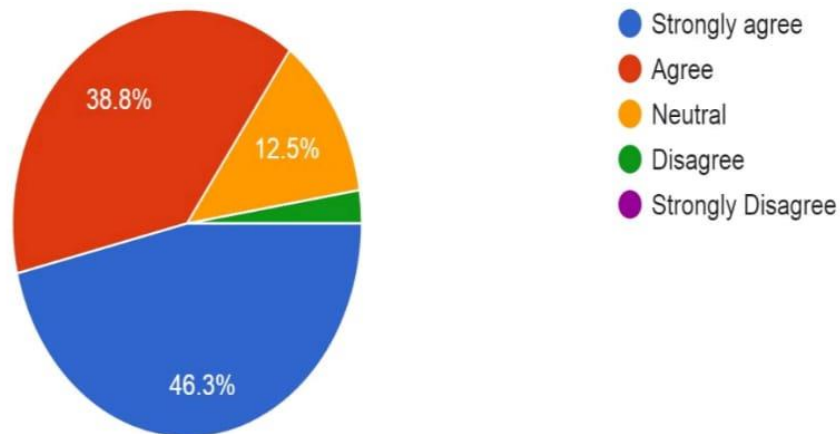
Mean - 15.5

Standard Deviation-16:10

Variance-259.42

**RECOMMENDATION OF ARTIFICIAL INTELLIGENCE IS HELPFUL :**

80 responses

Response	No. of Respondents
Strongly agree	37
Agree	31
Neutral	10
Disagree	2
Strongly disagree	-

When it comes to knowledge about new brands in the market we can clearly see from the above pie chart that social media platforms do help majorly in establishing an image in the minds of the consumer. 85% and above are strongly in favor of this, with 12.5 % (10 people) being in neutral position and only 2 people does not stand with this.

Mean - 16

Standard Deviation-16.98

Variance-288.5

DID ARTIFICIAL INTELLIGENCE SCOPE IN SOCIAL MARKETING?
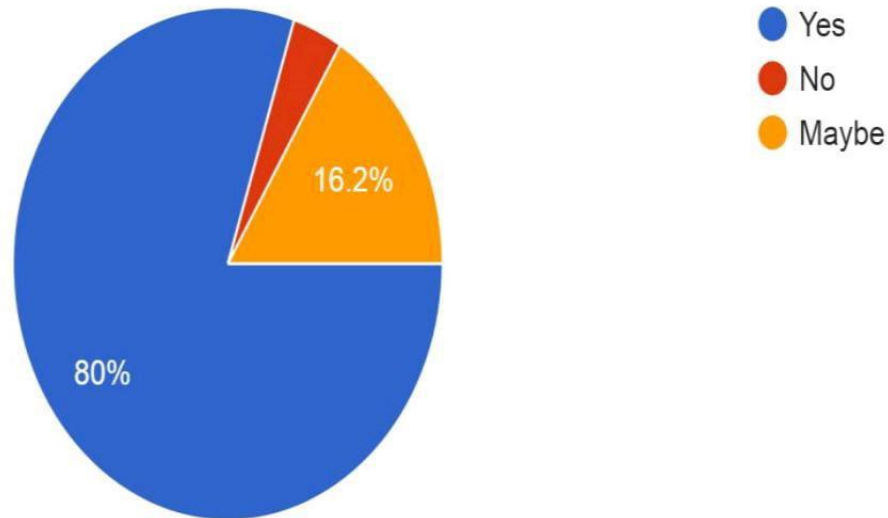
| No. of Respondents	Response
64	Yes
3	No
13	Maybe

Presence of business on social media sites helps them in reaching new customers which in turn increase their sales, profit margins, increased share in the market etc. keeping all this in mind 80% (64 people) out of 80 do think this way of marketing as a success, with 16.2% (13 people) thinking equally for both and only 3 think this as an unsuccessful step.

Mean-26.66

Standard Deviation-32.71

Variance - 1070.33

GROWTH OF ARTIFICIAL INTELLIGENCE INTO MARKETING :
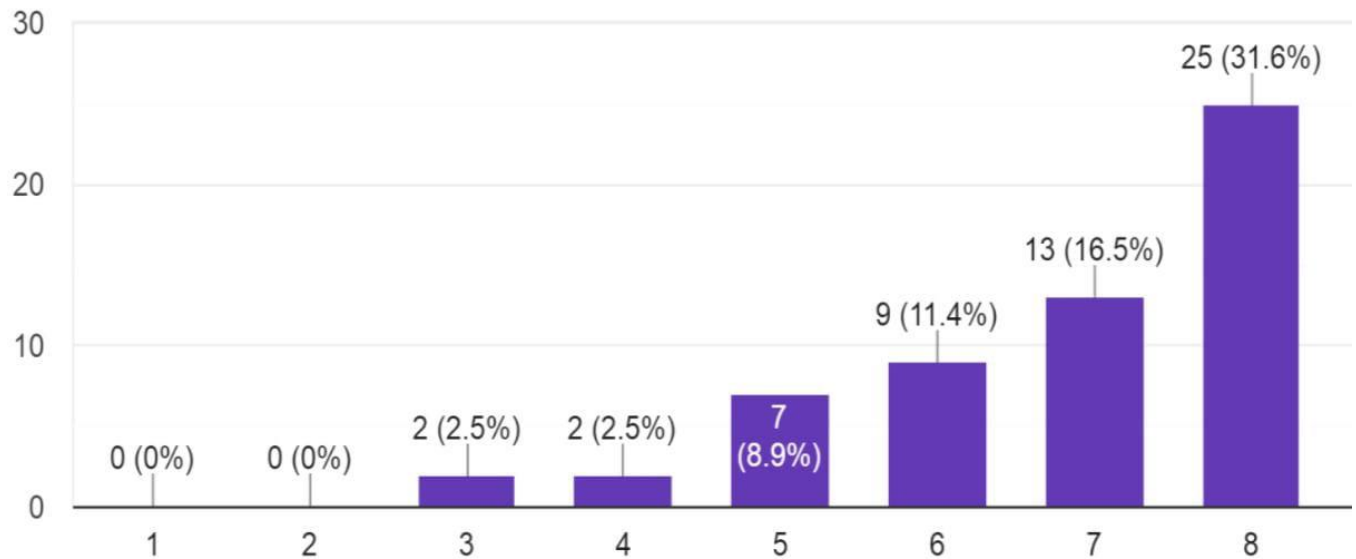
On the rating scale from 1 to 8, 1 being the least likely and 8 being most likely they will or will not recommend the brand artificial intelligence, rating 5 can be considered as the middle value. So as per the data presented in the above graph most the people gave the rating above 5, which means they have a positive outlook for this and will suggest the products to others.

In several year there is extremely growth into an artificial intelligence marketing and business sources. artificial intelligence help's business by business chatbots, automation, recommend features.

SECONDARY DATA

Cases of the companies who have successfully implemented Artificial Intelligence technologies in their marketing program.

NETFLIX :-

Ignoring the wisdom of crowds, Netflix is now completely relying on the Al based predictive technologies (Algorithms) to provide personalized recommendations to its users. Previously dependent on user's reviews, Netflix now (with the help of Algorithms) suggests movies and shows that are similar to those users have previously seen and liked. This is a great example of preemptive marketing.Subsequent to disabling its subscribers from submitting reviews/comment on its collections of TV shows and movies, the streaming giant purged all the remaining reviews from the users putting an end to its rating based system.

Apart from that, Netflix eliminated the annoying pauses and rebuffering issues encountered during online streaming. It utilized Al technology to refine and optimize each scene of the video.ensuring high-quality display even on slow internet connection.

AMAZON :-

Being one of the early adopters of Al technology. Amazon has been driving benefits from product recommendations for long. Its recommendation engine alone constitutes 35 percent of the company's overall revenue. Amazon has refined the algorithms from time to time for making better suggestions and now it's using machine learning to make the recommendations more dynamic.

Product reviews on Amazon can be really helpful in marketing and brand promotion. Many companies misused the platform and generated fake reviews to amplify their product ratings. In response to which, Amazon created a machine-learning algorithm that filtered authentic reviews from fake ones.

The ecommerce colossus, furthermore, used Al and machine learning to power its three popular products; Amazon Go Store. Alexa, and Amazon recommendation engine. Amazon's voice enabled device, Echo is another note-worthy weapon in Amazon's machine learning armory.

To ace up the Al product race, Amazon recently launched Echo look. The newest edition in Amazon's echo branded products, Echo look is a cordless camera assistant and personal stylist that leverages machine learning and human advice. Just command Alexa to capture a picture and post in on social media. Besides, you can sync all echo products to get a better experience.

amazon

SPOTIFY :-

Having a rich history of upending the music industry, Spotify has been pushing the technological boundaries and getting the best out of Al, machine learning and big data. It discovers weekly playlists personalized for every user's unique predilections.

Spotify is said to be a data-driven entity for a reason. With millions of users listening to music nonstop, the company receives an exponential amount of data that it is used to run different interesting campaigns. In 2013, with the help of streaming data and user behavioral information, Spotify foretold the winners of Grammy Awards before the award show. Unsurprisingly, 4 out of 6 of its predictions turned out to be right.

The music streaming service has also test-launched its dedicated voice search interface to end its dependency on SIRI and Alexa, earlier this year. And now as we are reaching towards the end of 2018, the yearly Spotify Wrapped 2018 feature is here to enable the users to get a dive into their whole year's music flashback.

Unlike previous years' versions, the year's feature also creates a Tastebreakers' playlist comprising of popular artists and genres users didn't listen to in 2018 so that they can start new year with new music.
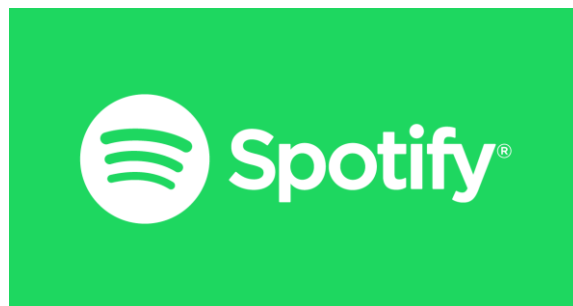
HYPOTHESIS TESTING

CHAPTER 9

<u>HYPOTHESIS TESTING</u>

HYPOTHESIS TESTING

To perform hypothesis testing for the use of artificial intelligence in marketing, we would need to first define our null and alternative hypothesis.

NULL HYPOTHESIS (H0) : There is no significant difference in marketing performance between companies that use AI and companies that do not use AI.

ALTERNATIVE HYPOTHESIS (H1) : Companies that use AI in their marketing strategies have significantly better marketing performance than companies that do not use AI.

We would then collect data on the marketing performance of a sample of companies that use AI and a sample of companies that do not use AI. We could use statistical tests, such as a t-test or ANOVA, to analyze the data and determine if there is a significant difference in marketing performance between the two groups.

WE WOULD REJECT THE NULL HYPOTHESIS AND CONCLUDE THAT THERE IS A SIGNIFICANT DIFFERENCE IN MARKETING WITH THE HELP OF ARTIFICIAL INTELLIGENCE AND WE ACCEPT ALTERNATIVE HYPOTHESIS.

FINDINGS

CHAPTER 10

FINDING'S

The major findings of the research showed that the major influencing factors in integrating Al in marketing are competitive pressure, media attention, digital maturity, and customers.

On the findings related to the benefits of integrating Al in marketing, different responses were gathered from the respondents. The major benefits according to the marketing professionals are increasing efficiency, time-saving in the marketing functions, improving conversion rates, a better understanding of customer information, making marketing decisions more feasible, increasing the ROI, insights, enhanced service and customer satisfaction. Other benefits include improved data analysis and effective handling of marketing processes.

On a question related to the biggest challenge of Al integration in marketing, Budget constraints technical compatibility is considered as the major challenge in Al integration according to the respondents. Respondents also consider that it is important to have data in place as it is the most important part of Al thus, according to them, data is also the biggest challenge.

According to the respondents, data is the major ethical aspect to take into account concerning the customers.

On the question related to the usage of Al in the marketing of the company, respondents stated that Al has made the marketing function more effective and it is used in almost all the important marketing functions.

The aim of the paper was to find out the impact of Al on marketing by including the perspective of marketing professionals. In order to reach the objective of the research and to answer the research questions, different steps were followed. At first, a comprehensive literature review was highlighted which provided a detailed understanding of Al and the use of Al in marketing by including the perspective of different researchers. Secondly, the researcher used the qualitative research method which involved semi-structured interviews with different marketing professionals belonging to different firms in India.

The above findings highlight the importance of Al in the marketing of businesses. Al has transformed the landscape marketing and helps in updating the outdated methods of marketing. This will be a major challenge for the organizations to transform according to the changing landscape of marketing. The organizations need to prepare themselves for the future and train their employees constantly with the emergence of innovation. The research has positively contributed to the existing literature by filling the existing gaps present in the literature by taking the marketing professional's perspective on the impact of Al in marketing. This highlighted the importance of Al in marketing and the major benefits associated with the integration. In addition, major challenges, ethical aspects, and usages provided a guideline to the companies to adopt Al in marketing. It is recommended to the firms to follow the aspects and challenges while integrating Al in marketing.

SUGGESTIONS

CHAPTER 11

<u>SUGGESTION</u>

Here are Suggestions for the use of AI in marketing:

1. Personalizing the marketing messages to each individual customer based on their browsing and purchasing history, would help to improvise the search and customer experience on the website.

2. AI-powered chatbots can be utilized to provide 24/7 customer support, answering frequently asked questions, and helping customers to find the information they need quickly, which will enhance the customer utility.

3. Using predictive analytics to anticipate customer behaviour and preferences, allows to tailor marketing campaigns to customer needs.

4. Using sentiment analysis helps to track customer reactions to company's marketing campaigns and adjust marketing strategies accordingly.

CONCLUSION

CHAPTER 12

<u>CONCLUSION</u>

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CHAPTER 13

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ANNEXTURE

QUESTIONNAIRE :

Q1 . Which kind of marketing is effective now?

- o Online

- o Offline

Q2 Did you think artificial intelligence is future in digital marketing?

- o Yes
- o No
- o Maybe

Q3. Artificial intelligence impact in customer recommendation?

- o Yes
- o No
- o Maybe

Q4 In social media where the most of artificial intelligence is used?

- **Answer based on study**

Q5. Recommendation of artificial intelligence is helpful?

- o Yes
- o No
- o Definitely
- o Maybe

Q6. Does Artificial Intelligence has scope in social marketing?

o Yes

o No

o Maybe

Q7. Do you think there is growth of artificial intelligence in marketing?

o Yes

o No

o Definitely

o maybe