AI in Digital Marketing: Exploring the Advantages and Understanding of Artificial Intelligence among Consumers

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Abstract

Artificial Intelligence plays a significant role in our daily lives and work, as it is used for a variety of purposes such as personal use and marketing. The goal of this study was to examine the use of AI in marketing and its benefits. The research employed both case studies and an online survey. The findings revealed a medium to low use of Artificial Intelligence for marketing purposes before the COVID-19 pandemic, with a significant increase during and after the pandemic. When categorizing use as high, medium, or low, it was found that Artificial Intelligence was mostly used for data collection, synthesis, and use. Its medium use was in customer service, such as through chatbots, and it was least popular as a digital marketing tool for websites. The return on investment for Artificial Intelligence advertising costs was up to 432 percent. An online survey was conducted and out of 311 respondents, 111 returned the form. Of these, 48.6 percent were female, and 46.8 percent were male. All of the respondents used digital marketing platforms as either sellers or buyers, but the degree of use varied among individuals.

Keywords: Advantages; Artificial Intelligence; Awareness; Digital Marketing.

Introduction

In the present context, Artificial intelligence is in use in almost every sphere of human life from driving cars to handling intricate work in the industries. It has been evolving since 1950s, 'we had a generation of scientists, mathematicians, and philosophers with the concept of artificial intelligence (or AI) culturally assimilated in their minds and the Alan Turing explored the mathematical possibility of artificial Intelligence'(Anyoha, 2017). 'Artificial intelligence (AI) is likely to transform digital marketing interactions with customers'(S. Ransbotham, D. Kiron and et.al., 2017). The COVID-19 pandemic has had a significant impact on the use of AI for digital marketing. Many businesses have had to adapt to the challenges presented by the pandemic, including shifts in consumer behavior and the increased use of online platforms for communication and commerce. As a result, AI has played a role in helping businesses to optimize their digital marketing efforts and target their messages to specific audiences (KPMG, 2021).

One way that AI has been used for digital marketing during the COVID-19 pandemic is through the use of chatbots and virtual assistants. These AI-powered tools have helped businesses to communicate with customers and provide them with information and support, particularly in the early stages of the pandemic when in-person interactions were limited. Artificial Intelligence has also been used to analyze and understand changes in consumer behavior, such as changes in search patterns and preferences, and to adapt marketing strategies accordingly. For example, AI-powered algorithms have been used to analyze social media data to identify trends and insights that can

inform marketing efforts (Smith, 2020). Overall, the COVID-19 pandemic has led to an increased reliance on AI for digital marketing as businesses look for ways to adapt to the changing landscape and reach customers in a more targeted and efficient way.

AI, Big Data analysis, the Internet of things (IoT1528-2678-25-5-472), and technology, in general, have become an integral part of society and it has improved with time. Society in the 21st century has evolved extensively, and technology has become an integral part of our lives. And this technological advancement is expected to evolve and grow beyond our imagination. The invention of the first phone, air-nautical, space-science, robotic-science, and machine learning accomplishments like rockets, satellites, Sofia- the humanoids have made the impossible become possible and part of our daily activities. 'Businesses that want to provide efficient AI-based digital marketing must have a robust IT infrastructure because AI requires appropriate and high-quality marketing data'(Fazla Rabby et.al., 2021) In the future, AI play a major role in marketing even in service delivery, on this situation how the business being benefited by the use of AI ? is being explored in the study. The objective of the study is to identify how is AI being used for Digital Marketing and the major challenges digital marketers face while implementing it.

Research Methodology
The research is basically based on qualitative with the convergence approach of quantitative. To collect data, a literature review, case studies and an online Google form was used. This is a type of convergent approach of the study. Case studies were used of the companies that are using digital marketing and others.
Findings

'The term digital marketing refers to the use of digital channels to market products and services in order to reach consumers. This type of marketing involves the use of websites, mobile devices, social media, search engines, and other similar channels'(Barone, 2022)'. To understand digital marketing, we need to first understand what marketing is about. In simple terms, Philip Kotler popularly known as the father of Marketing defines Marketing as satisfying needs and wants through an exchange process. 'If the marketer does a good job of identifying consumer needs, developing appropriate products, and pricing, distributing, and promoting them effectively, these goods will sell very easily(Kotler, 2017)." In this situation digital marketing helps in better way. Therefore 'We can therefore define it as a form of direct marketing that links consumers with sellers electronically using interactive technologies like emails, websites, online forums and news groups, interactive television, mobile communications, etc (P. Kotler & G. Armstrong, 2017). The importance of digital marketing highlighted as by Fawad Khan et al (2013) "In today's time, social media channels such as Face book, Twitter, Google and other social media firms have successfully transformed the attitudes and perceptions of consumers and in the end helped revolutionized many business"(Fawad Khan et.al., 2013).'AI can work in a manufacturing business with precise, high level of output without wasting time as

compared to human labor. The production efficiency improves the cost basis and earning potential for the companies'(Reference.com, 2020).

Relevancy of digital marketing and its approaches

Due to the computer and other means of communication, the world is becoming a place of all and interchangeable of culture, languages and habits of people. Due to the fast-growing pace, digitally business are moving fast, online purchasing becoming a culture, in near future, the people would not go to shopping complexes, the shopping complexes will come to home.

In comparison of classical marketing competency (CMC) digital marketing has been evolving and it has been gaining momentum even though the "marketing organization forces firms to develop new digital marketing capabilities DMCs"(Christian H. & Dominik M. Wielgos, 2022).Academic area picked up the digital marketing as a major subject in universities around the globe for an example 'there are 63 programs in digital marketing in different colleges and universities in Europe alone(Keystone, 2022)'. When the subject is introduced in the universities and colleges is the best part of the area that will have relevancy to the stake holders. Still the market is in dominance of classical marketing approach due to the development of digital gadgets and web page, face book, twitters and other media, digital marketing has great potential since it has the flexibility to reach to the people as well. 'The year 2020 has witnessed a global digital ad spending of $332 billion. This was a huge amount, the benefits of digital marketing viewed by the companies and they are adapting digital marketing strategies; with the adaption by the corporations/companies made the increased demand for skilled digital marketing professionals across organizations irrespective of their size'(Team, 2022).

With the literature review identified the use of AI in different field of human benefits, marketing also one the field, it has been used from production to cooking, driving, flying, computing, heating in almost every sphere of human life. It has been making life much easier than yesterday. AI will intervene even in medical sector, operation and so on. "Mobile devices use intuitive, voice-activated AI applications to offer users assistance in completing tasks. For example, users of certain mobile phones can ask for directions or information and receive a vocal response"(Reference.com, 2020).

Case Study: Use of AI in different companies.

a) Watch Finder.

Watch Finders UK[1], one of the United Kingdom's largest premium watch dealers in 2014 after discovering that only 1 percent of their website visitors bought their products. The company used Google Analytics tools to unlock insights which helped them reconnect to their customers using retargeting ads. Their swift action resulted in a 1,300 percent Return on Investments (ROI) in just six months, as they were able to successfully reconnect, retarget their website visitors and complete their purchase. The company made this possible by creating 20 highly focused lists of

[1]Watch Finder. (2014). Watch finder Clocks 1,300% ROI Using Precision Remarketing With Google Analytics

their target audience, who showed the intent to buy but for some reason did not complete the purchase. They then defined groups according to the funnel stage, location, language, on-site behavior, and ISP. After which they defined groups according to funnel stage, location, language, on-site behavior, ISP, and more. This resulted in 34 percent lower Cost per Acquisition than non-brand search campaigns. The company, which was launched in 2002, and by 2018 the company had a turnover of £109.2Mn(WatchFinder, 2022)

b). Telenor's use of Albert AI in 2018

Albert AI[2] has an intelligent collection of 200 different skills. It is said to process and analyze audience and tactic data at scale, autonomously allocating budget, optimizing creative and evolving campaigns across paid search, social and programmatic channels. The telecommunication company's marketing team was looking for a holistic solution in their marketing as their vision was to create an in-house operational model that would be able to enable rapid sharing of the campaign insights as soon as possible with the content and creative team, to learn what would work best with their global audience. They had found that they were spending a lot on ad campaigns that weren't getting them the returns they wanted. They understood that they would need a solution that would require learning-based analysis on actual digital media performance. This led them to give Albert AI a try in 2018. The Telenor team provided Albert with as much data as possible, and they benefited immediately from deploying autonomous AI. Since this AI platform tests and learns using complex multivariate calculations at the pace and scale of a machine, the team set their KPIs, guardrails and let Albert do its magic. This medium-high involvement platform took the data processed it, analyzed it, did a pattern discovery while instantly acting on insights. 'Just one year after using Albert the Telenor marketing team has been able to increase their leads by 122 percent, lower their costs by 30 percent that whole year, and were able to get a 423 percent Return on Ad expenditure (ROAS)(Alberto, 2018)'.

The case study has given a glimpse of advantages of the AI in marketing, Alberto has very high yield and Watch finders have little benefit, only 1 percent customers turned out from the web site. Whereas Alberto had a 432 percent return on ad expenditure**.**

The outcome of the survey

In order draw to understand the subject matter awareness, mentioned below is the outcome and elaborated conducted survey questions;

The survey was sent out to 300 audiences designed in the Google form and received their input from 111 within the given timeframe and the link was sent by using the online platform -social media like Facebook, Gmail, Whatsapp and professional networking media like LinkedIn.

Pie chart 1: Age Group of Respondents

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[2]https://albert.ai/impact/telecom-telenor/
Marketing AI Case Study - Telenor - Albert

The Age Group pie chart indicated the age group in percentage, which makes it easier to analyze the fact that 57.7 percent of the respondents are between the age range of 18-34, called Generation Y or Millennia's, we can expect the participants to be mostly students or in level-1 or 2 of their employment
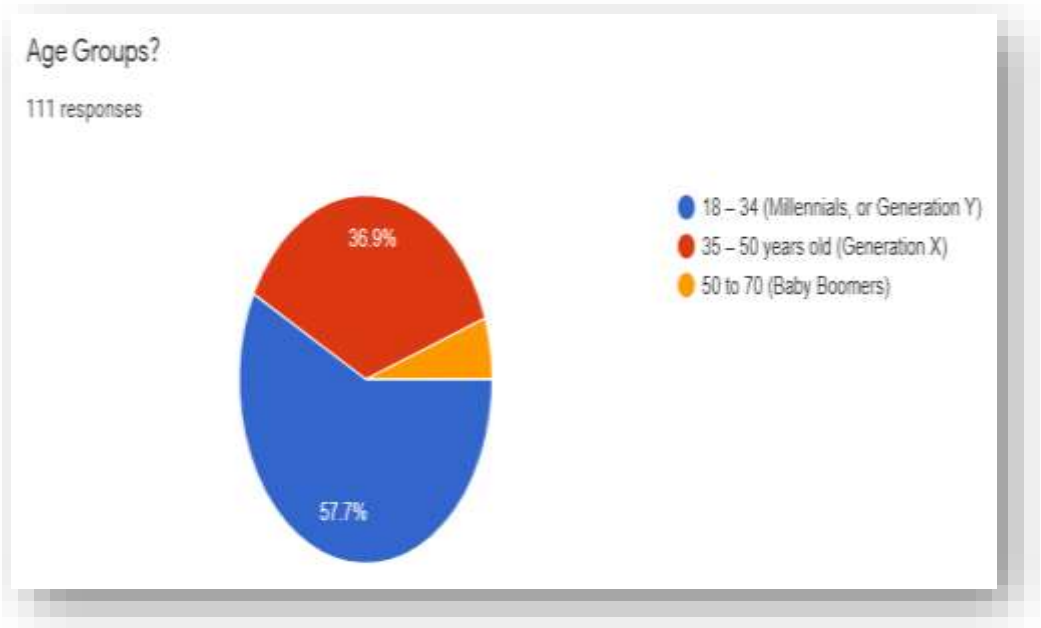
The age analysis helps in understanding the thinking pattern or reliability pattern to the age group mentioned, as 18-34 is the actively aware of the subject matter then age range of 35-50 Generation X, indicated at 36.9 percent, this age range is more suited for mid-level management or higher and they usually have people answering the questions for them, therefore, might not have too much indulged or self-research parse. The agegroupof50-70yearscalledthebabyboomershas5.4percent

Pie chart 2: Gender of Respondents

The gender pie-chart indicated the classification of participants based on the gender category which is more female at 48.6percent than men, which is 46.8percent, 2.7 percent of the participant didn't prefer to disclose their gender status, which is completely acceptable for such primary research.

Gladly women have been more responsive and informative in this case scenario. This survey was is more of people's general awareness on the subject matter than their expertise to analyze where we standing in the 21st century and how we look at AI in the coming years. Survey has a very basic structure and doesn't require any in-depth knowledge.

Pie Chart 3: Understanding the Employment status of Respondents

This pie chart indicated the employment status of the participants in percentage. 57.7percent of the participants are employed, 21.6percent have business or self-employed, 11.7percent are freelance or on a part-time contract and 9percent are unemployed mostly students or may be retired.

Participants, usually retired and not very keen on technology and whereabouts. But having said that the data sent to the participant may also be limited as more people in the age group of 18-34 suited my networking circle.

Pie Chart 4: Industry or employment background of the participant?

Industry analysis helps in the work background of an employee or participant engaging with AI or its tools. It indicates 36.9percent of the
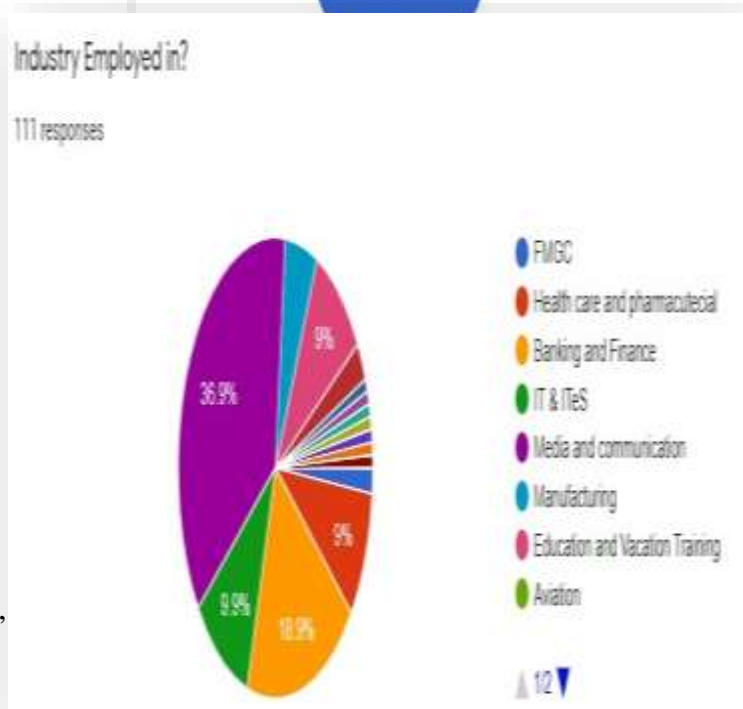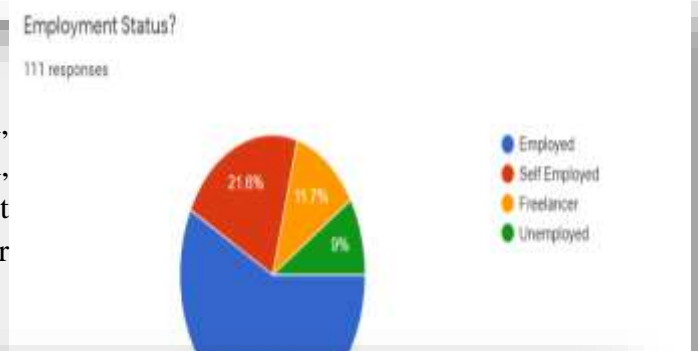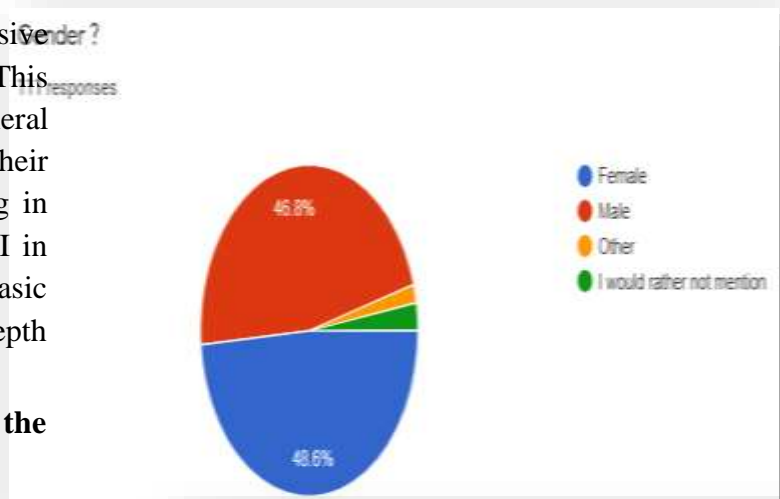
participant responses came from media and communication, 18.9percent from banking and finance and 9.9 from IT & ITeS, and 9percent from education and vocational training and health care and pharmaceutical. The analysis include hows the user behavior and indulgence in using the AI or tools. The numbers will be growing substantially as more and more people are using AI tools in carrying out their daily work.

Bar chart 5: Respondents' answers on familiarization with the Direct Marketing activities?

Respondent's dependency or awareness on direct marketing tools (DM tools) helps in understanding the engagement with the tools to carry out daily work tasks with maximum efficiency. The respondent replay indicates that they are most aware of social media marketing as 73.9percent of participants selected the same option. The best example of social media marketing would be platforms like Facebook-market or pages, advertisements. It is most used by the masses now as it's trending and addresses a variety of audiences around the globe and locally.
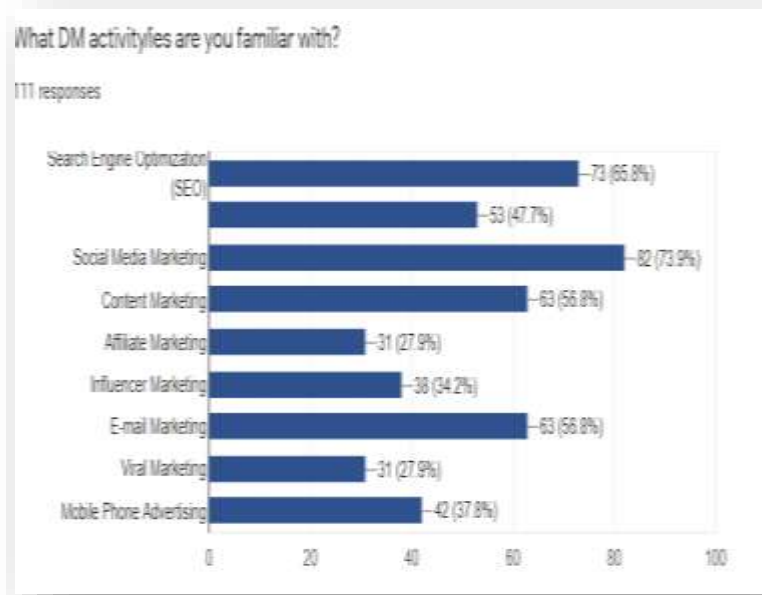

The second most known tool is Search Engine Optimization at 65.8percent the best example would be Google and similar platforms. Google is used for spelling definitions, phrases, or topic-related such, we have multiple options even before we hit the search button. Google helps in completing, correcting spelling, and much more which is used by almost everybody with internet access on daily basis.

Pie chart 6: Analysis on Subject matter awareness AI and its advantages in Direct Marketing

Looking at the available data, 79.3percent acknowledged that they are aware of the importance of Artificial intelligence and its advantages in Direct Marketing.AI is changing the orthodox methods of marketing.

Around 10.8percent mentioned that they do not know the relevance or the importance and 9.9 percent are not sure since it's an upcoming topic and people are learning as the technology and the marketing methodology is improving, more and more people are expected to be aware of the AI and its relevance to the digital marketing strategies as we move forward. At present, the big brands are using the sub parts of the AI to enhance the sales volume using AI as a tool for their digital marketing.
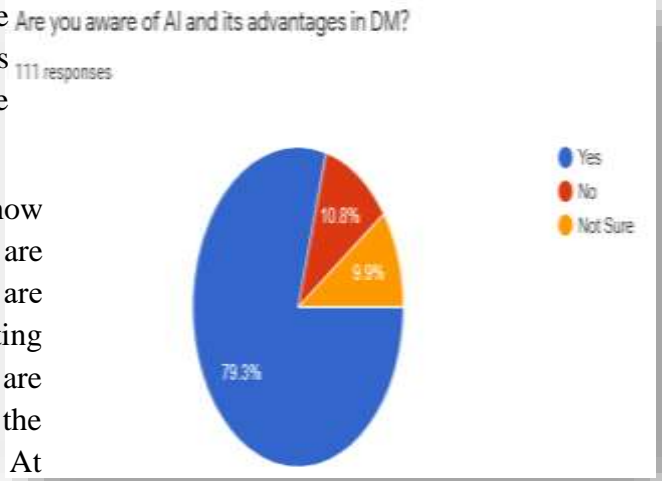
Pie chart 7: Respondents answer to the understanding of AI?

As the presented data indicated 62.2 percent of the population is spot on, they are aware of the topic and its integration. Since they know what it is and how it is, they will also be aware of all the near future implementation or developments. 48.6 percent of the participants understand AI as being a Chabot/robot like Sofia, a highly skilled interactive robot.
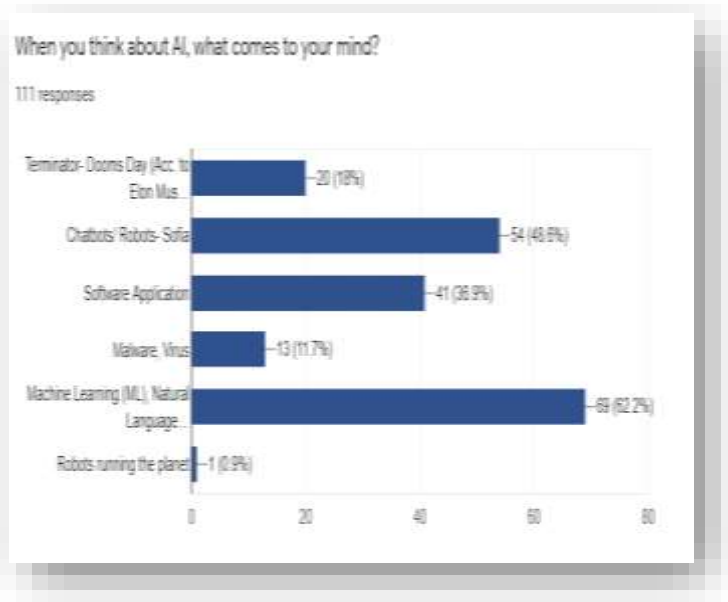
Concerning several 11.7percent& 18percent of people thinks its malware or a virus created to hack and damage the technology, when I tried to find out what this particular

section of people think about the AI the shocking truth came out, it's not new we have known the facts from quite some time now. It's been in discussion with many leading entrepreneurs and technology mega minds from the industry-leading giants but natural for some of the people to believe them and create a notion either for or against the motion.

Pie chart 8: Respondents' opinion AI or AI tools to be used based on the industry?

Based on the data analysis, 25.2percent of the total participants thinks the industry that uses AI the most is Media and Communication. Based on pie chart 4, 36.9percent of the participant responses came from the media and communication industry this may lead to a higher percentage for this particular analysis.
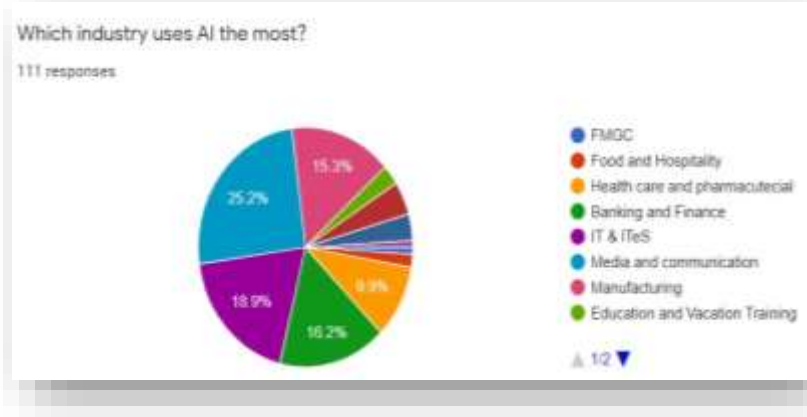
**Pie chart 9: Data in response to the incorporation of AI in Direct Marketing activities**

44.1percent of the participants think indulging AI in DM will improve user engagement by delivery tailored to individual preferences. As explained in the previous chapters on the functionality of AI and its competency to mold or develop a user pattern and based on that pattern of choices or selections AI can be very useful to make strong recommendations and suggestions. These suggestions will perhaps have a high success rate when compared to regular marketing and sales techniques.
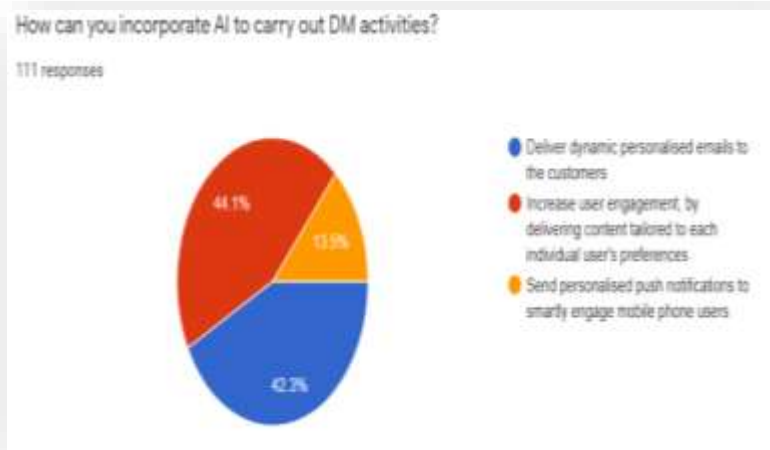
42.3percent of the participants think that AI can certainly help in delivering the personalized email to the customer, catering to their requirement and 13.5percent believe that it will help send personalized notifications to the mobile phone of the user. AI works efficiently as it's based on historic data or patterns and doesn't require much walk-through by the user, it can help the companies to understand the customer and provide the services they are looking for.

**Pie chart 10: Importance of AI to carry out business Analytics through demographic data.**

Looking at the pie chat 64.9percent of the total participant think that AI can truly contribute to understanding the real-time demographic data which in turn can transform businesses' procurement systems. 34.2 thinks it's important and only 0.9 percent thinks it's not important

According to the academic teaching and leading business entrepreneurs, It is very essential that we understand the business trend in a target market, to achieve the primary goal of profit maximization. AI can give better and smart solutions for it and will have more accurate recommendations. I think 0.9percent of the participant don't want to depend on technology or are not tech-savvy and feels it Is too complicated perhaps wants to stick to the orthodox methodology and stick to gut instinct. Their business may or may not flourish as the customer and the trend changes very quickly. Above all it all is done in just a matter of clicks, AI is fast and accurate.
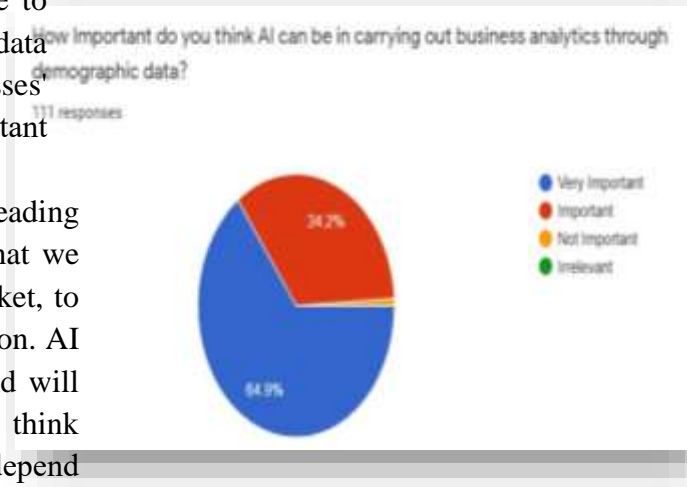
Pie chart 11: Importance of AI to carry out business Analytics through demographic data.

Business analytics has its importance for drawing outcomes and strategy to enter a new or existing market, it involves more numbers and graphical presentation in terms of presentations and corporate communication.

The data indicated reflects that 76.6 percent of participants feel that AI will be an essential tool to carry out business analytics through demographicdata.AI, big data, and improving technology have helped many and with time it will amplify the business research and analytic work.
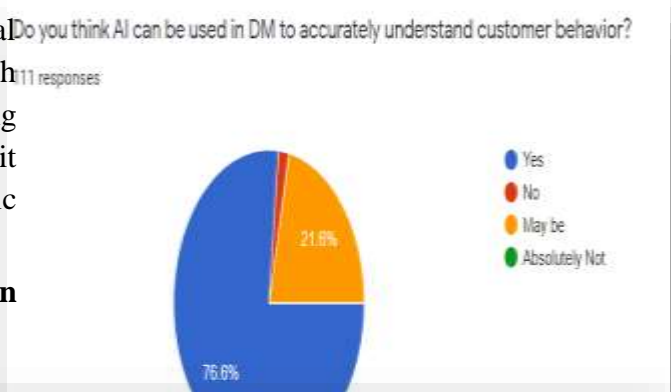
Pie chart 12: Importance of AI in decision making to boost DM strategies

67.6percent of the participant said a loud yes as they understand the concept and convenience when it comestousingAIorAI-

enabledtools.26.1percentsaidmaybe,they are not certain about the subject 6.3
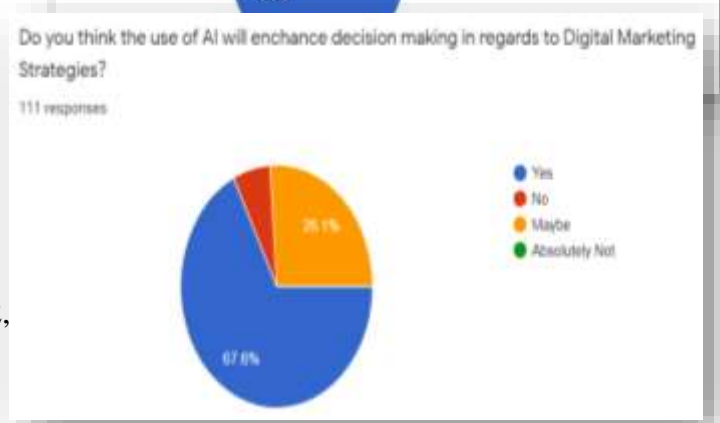
percent said no, it's a personal opinion-based paper therefore people with less or no knowledge on the subject matter may have other opinions, which is alright. They probably are unaware or don't follow the changing trend when it comes to product & services marketing or strategies.

Pie chart 13: Response analysis for IT proficiency requirement to use AI powered DM tools

64.9percent of the people think that they need to have IT proficiency when it comes to engaging themselves with AI-powered DM tools. 35.1 percent of people said no. We only need IT proficiency when we need to program or code the AI tools, as a user we only need operational and functional knowledgewhichislesscomplicatedascom paredtoworkingbehindbuildinganAItool. Duetothis notion, there is less adaptability among the users.
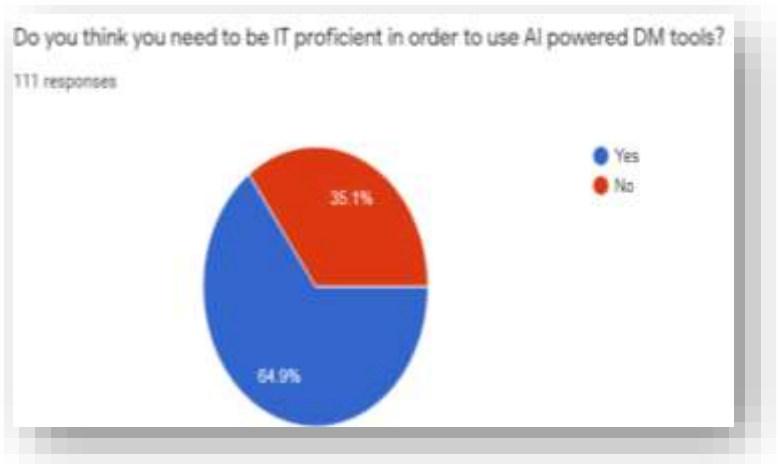
Pie chart 14: Analysis of AI tolls usage by the Respondents

25.2 percent of the respondent used Grammarly as the most used or known AI tool. It helps in spell, grammar, punctuation, and sentence suggestion during your daily typing. The analysis response has been more from the Media &communication which may have involved people with print media, they do use a lot of words and sentences in their daily work tasks.
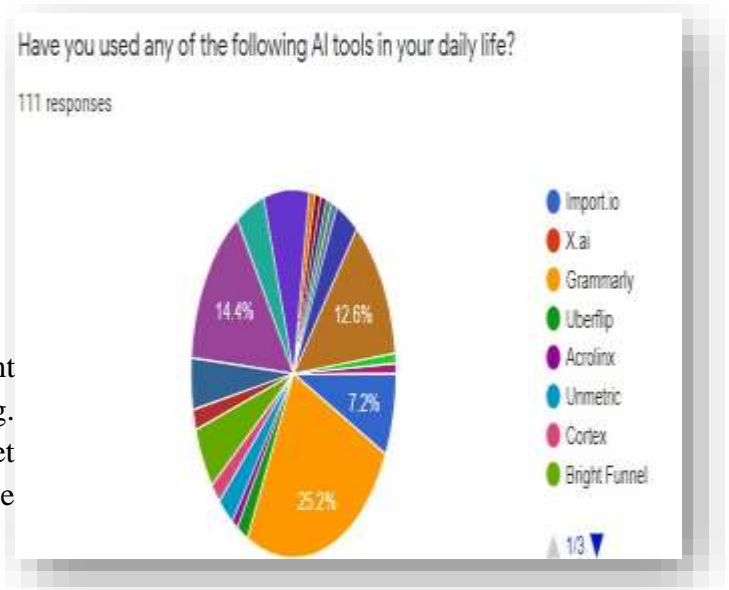
14.4percent said Acrolinx, is used to content alignment and development for marketing. This tool helps in content that suits the target audience therefore it is easier for the audience to relate to the marketing content.

7.1percent import.io, it help is providing the most accurate and smart web data needed for decision making. The brand names like P&G, Amway, Pirelli, and Accenture are some of the top-notch brands that employ the import.io tool to carry out their decision makings.

14.4 percent chat, one of its kind, users have to be able to provide its customer round the clock services. It's more like an answering machine but with more in-depth information once the user provides the dialogue flow to the machine thereafter any possible question is asked which connects the thread to the options or dialogue available will be put forward.

None of the AI tools mentioned above requires the user to have any background or proficiency in IT. Knowing the IT will anyway be an advantage in understanding the functionality but users just need to know how to operate and they are good to go.

Pie chart 15: Awareness among the respondents in terms of daily usage.

Google introduced Google Brain Project, the idea is to explore the horizon using AI and big data. Previously Google only provided alternate options or suggestions that correct the spelling but with deep learning and growing demand for technology-enabled devices and apps Googled signed apps that would assist with image recognition and Google translation tools, this would have not been possible without the help of deep learning.

Do you know that Google and YouTube use AI to give you smarter and quicker video or search suggestions based upon your search history?

111 responses

Yes
No

8.1%
91.9%
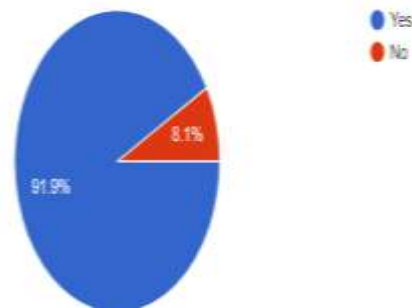
YouTube has been on with its predictive analysis, using the viewer's search pattern and the watched videos it automatically suggests the next available options. According to a study, 70 percent of the YouTube viewers' don't have any particular reason or topic in mind when they first visit the Website but still miraculously land up spending hours watching the video back to back. This is a perfect example of how to engage the customers. Like we can see in the responses 91.9 percent of the participants acknowledge the same fact that Google and YouTube use AI and it gives them smarter and quicker options based on their usage history.

Piechart16: Response analysis for brand monitoring,consumer activity on social media-i.e. Facebook, Instagram, Snap chat, Twitter, Pinterest, Whatsapp using AI.

In the 21st century, things get amazing popularity around the world and people use such platforms to express themselves, the users are not hesitant to use the internet to

Do you think it will be easier for brands to monitor brand mentions and consumer activity on social media, using AI?

111 responses

Yes
No

96.4%
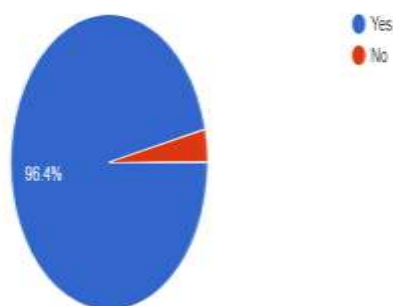
post reviews of products or services and sometimes start trolling a brand of services. This can impact the global users and image of a brand

Using AI and big data analysis it becomes easy to understand user behavior and pattern and in turn can provide the most useful and productive input.

Discussion and Findings of the study

There were three different areas to collect data and information among them case study on the use of AI in two companies, and found out Case study has given a glimpse of advantages of the AI in marketing, Alberto has very high yield and Watch finders have little benefit, only 1 percent customer turned out from the web site. Whereas Alberto had 432 percent return on ad expenditure. From the questionnaire analysis almost all respondents have used the AI tools one way or others, highest no were social media user 82 (73.9 percent) and 79 percent were aware of AI and its use in different sector including digital marketing. The advantage of AI has realized by the different companies and individuals. Still developing countries' people do not have access to AI easily. It should be made accessible and useable by the common mass.

Recommendations

AI need to be used in marketing since the people are getting aware of the use of AI and its benefits. Small scale businesses/ industries also need to adapt the technology. If they cannot afford alone, they could develop in groups as their requirements and suit to all to modify. They should also be trained to be adaptable with the changing technology, it will help them to afloat in the competitive markets.

Conclusion

The benefit of AI is getting popular to the companies and even to the individuals and its use found from music to analysis of big data and identifying the specific areas to intervene since it has the ability to detect the gaps for the marketing. The use of AI technology in digital marketing is not fully developed yet. Most small businesses rely on plugins and low-involvement AI technology that is available in a one size fits all format and cannot always be integrated appropriately to suit the company's unique marketing requirements. Hence democratization of AI solutions will enable small businesses in adapting the technology they require without having to pay a hefty sum. Developing AI technology requires a lot of time and money, which makes the development process comparatively more expensive than normal website development. Hence, not all businesses can afford it.

Declaration: There is no conflict of interest and with the intentional, there is no breach of research ethics

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