

## **Impact of Technology on Business Markets: A Theoretical Study on Role of Artificial Intelligence on Business with Reference to Post Covid-19**

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### **Abstract**

Artificial Intelligence is the new revolution in the business and in past few years it is indulged in various fields like science, business, medicine, automation and education, AI is also reached in the marketing business. Most of the big companies are using AI for their advertisement in digital platforms. AI has been changing the way of marketing and sales with consumer perception and its behaviour. The author of the paper is suggested the research about an AI, what it is and how deeply it is applied in marketing and what marketing practitioners can do with AI implication. The author of the paper is also addressing the impact of AI in marketing and sales and to investigate the AI result. The main aim of the paper is to serve the idea about how AI will be going to transformed the marketing & sales strategies digitally with the machine learning algorithms, the paper is also highlighted, how the AI will be more effective if it makes lager in the future (rather than replace) human manager. The paper firstly introduces the introduction of Artificial Intelligence and then stated its involvement in marketing and sales. After that we discussed about how AI works, what is AI use and how it is use in marketing and sales. Its impact or implementation on marketing strategies or consumers behaviour.

**Keywords:** AI impact, AI application, AI importance, AI evolution

### **Introduction**

Artificial Intelligence (AI) is a category of technologies and arena of study that has been present around for decades and yet has only recently been possible to implement. Despite its relative beginning in the market, applications of AI already boast impressive efficiency across industries, particularly in marketing. Recent developments in AI technology and growing numbers of use cases demonstrating its success have gathered excitement amongst marketers. This enthusiasm has not fully explained into a universal understanding of how the technology works, its practical operation, and the long-term consequences it carries.

As AI quickly becomes more sophisticated and widely approved in marketing, the ability for marketers to effectively implement and accomplish it will become an ever more significant skill. Likewise, individuals' understanding of their role in producing and distributing value in an AI-powered workplace is essential key to the success of their career, the companies they work for, and the consumers with whom they interact. It thus stands that AI may soon indicate sweeping change to the nature of marketing itself.

The "AI Marketing Era," is labelled properly and, requires essential changes to the manner in which marketers has been interacted with customers to make, the strategies, and tools they use to achieve their goals, the skills they respect highly in the workplace, and the nature of their day-to-day tasks. Similar to the magnitude of change brought forth by the beginning of computers, artificial intelligence carries the potential to modify the nature of marketing drastically. It is the reason that the topic of artificial intelligence in marketing

requires in-depth research and analysis to concoct for changes to come.

Artificial intelligence (AI) is a wide-ranging tool that enables people to rethink how we integrate information, analyse data, and use the resulting insights to improve decision making-and already it is transforming every walk of life. In this report, Darrell West and John Allen discuss AI's application across a variety of sectors, address issues in its development, and offer recommendations for getting the most out of AI while still protecting important human values.

### **Literature Review**

#### **Artificial Intelligence Overview**

Artificial intelligence comes from information technology and it is continuously changing with concepts like automation or robotization and it also emerged with machine learning or algorithm application. According to Oxford Dictionary, AI is "the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages" ("artificial intelligence | Definition of artificial intelligence in English by Oxford Dictionaries", 2019). The technology which is based on artificial intelligence, is capable to reproduce the cognitive functions that we characteristic to the human mind, including the ability to solve problems and learn (Syam, Sharma, 2018). The main role of AI is to perform the certain tasks by identifying the available data and then process it. There are various types of Artificial Intelligence like Artificial Narrow Intelligence, which functions and carries out tasks in a

particular area (Shanahan, 2015). The second type of AI is Artificial General Intelligence, whose possibility of intellectual capacity is similar to that of the human brain (Sterne, 2017). The revolutions of three technologies machine learning, deep learning, and natural language processing which is contributed on AI works in a small area, and performed a task also.

Artificial Intelligence has been taken to a growing level by the use of Machine learning which is above the level of following a set of predefined guidelines. Therefore, ML changed the role of algorithms that have using with AI. Therefore, ML has permitted the computer to learn by themselves grounded on the exist data by developing the link between individual groups of data. Thanks to these aptitudes, ML makes it possible to draw conclusions and form generalisations on the basis of performed scrutinizes (McIlwraith, Marmaris, & Babenko, 2017). ML comes in various forms and may be offered as pattern recognition, statistical modelling, data exploration, knowledge discovery, predictive analytics, data analytics, adaptive systems, self-organising systems, and many more (Domingos, 2016).

The higher level of Machine Learning (ML) is Deep Learning (DL), which is depended on learning algorithms that are not be able to do manually. DL is used the benefit of big data and computing power (of, e.g. server farms, CPU power, cloud computing), makes it possible to decipher and deliver the result for a new part of information immediately (Alpaydin, 2016).

The Advanced technologies have allowed the development of AI in the zones of voice, text, and image recognition, decision-making, and autonomous robots and vehicles. Practical applications can be reach to each of these areas. Instance, Voice recognition in smartphones (e.g. Siri, Google Assistant). Text recognition solutions, which is used as virtual assistants who deliver speedily answers (e.g. Deakin University and IBM Watson). Image recognition is used for payment approval, thanks to comparison face image the system can make payments (e.g. food chain KFC). Decision-making system is offered to educational purpose-IBM Elements is dedicated for teachers to used them in student assessment and to deliver creates recommended individual development path for each student. Finally, autonomous robots and vehicles are used in the warehouses to accomplished the stock (e.g. in Amazon Kiva system) image the system can make payments (e.g. food chain KFC).

### **Researched Methodology**

The paper research shows the various dimensions which are attributed to the ides of the Artificial Intelligence (AI) and its application or how it is applying by various big companies in their marketing and sales arena. This paper is the descriptive study of how Artificial Intelligence (AI) will transform the future of marketing strategies and consumer behaviour. Where some idea is referred from secondary material, which are available and some are from the personal experience of the author. The study also served the measure which helps the marketers to know the impact of Artificial Intelligence will going to be create in future of marketing and sales business.

In the near term, the goal of keeping AI's impact on society beneficial motivates research in many areas, from economics and law to technical topics such as verification, validity, security and control. Whereas it may be little more than a minor nuisance if your laptop crashes or gets hacked, it becomes all the more important that an AI system does what you want it to do if it controls your car, your airplane, your

pacemaker, your automated trading system or your power grid.

### **Researched Objectives**

The primary objective of taking up this study is to scrutinize the various aspect of Artificial Intelligence (AI) and to reveal the future necessities of adopting it as a marketing strategy by the marketers in future marketing of their product and services.

### **How Artificial Intelligence Works**

Algorithms plays an important role in Artificial Intelligences (AI) because it is worked on the basis of algorithms. Which are the set of instruction followed by the Artificial Intelligence in some certain circumferences like problem-solving operations, especially by a computer. When Artificial Intelligence comes in the mind of digital marketers, they think immediately about the "Rank Brain" algorithm. Rank Brain is a machine learning system which was introduced by Google in 2015 and it is being made like that it has a capacity to get back the answer to the users. The power of Artificial Intelligence is used by Rank Brain to understand and gives back then repose over it to user queries in the particular pattern as a human do. Moreover, it also returns a set of same question that peoples are continuously typing into a google. The precise returns of the answer along with a similar set of questions are all powered by artificial intelligence.

### **Important of Artificial Intelligence in Marketing and Sales**

The artificial intelligence is dominated the more digital platforms of marketing in current scenario. Smart Insights study shows that out of 100 senior marketers from various different industries, 55 percent of companies are executing or already started using AI in their marketing practices.

AI Marketing (AIM) provides a head huge amounts to a marketer for marketing data scrutinize from social media, emails, and the Web in a relatively in rapidly. Moreover, the insights they have a less time frame will help marketers boost campaign performance and return on investment (ROI) faster. This suggested the marketers and businesses to focus more time on other equally important tasks.

Another reason is why AI is important in marketing campaigns in 2020 so that 76% of consumers expect companies to understand their requirements and expectations. AIM will be going to help content marketers for understanding who exactly their target audience is, thereby creating a personal experience for customers/users.

### **How AI is using in Marketing & Sales**

However, there are some applications of Artificial Intelligence in marketing which is executed by various companies in their digital platforms.

#### **1. Sales Forecasting**

Artificial Intelligence is used in Marketing for collecting the data about past deals. It will utilize the data during study from emails, meetings, and on some occasion's phone calls. Artificial Intelligence Marketing can provide the information regards outcome data of the possible sales of your current and future campaigns.

#### **2. Understand Customers**

The data which is assembled by Artificial Intelligence Marketing solutions, which is assisted to marketers for easier

understanding about what is their customer's requirements are and also how they want it and when. Marketers are also created customer profiles to style it easier for them to separate people who are interested in their product from those who are still considering or will not purchase.

### 3. Find the Trend

The ability of Artificial Intelligence Marketing is to scrutinized the greater chunk of data which is used to find upcoming trends by "joining in" real time conversations or event of your user. However, there are many ways to utilize the Artificial Intelligence for your marketing campaigns, you also prerequisite to take some tangible examples of how to use it in your strategy.

### 4. Chatbots

It is for inquiring, buying, or complaining, messaging apps such as Facebook Messenger, Viber, and WhatsApp have made it casual for a customer to reach out to companies and tell them what's on their mind. It is free and easy to use for a lot of people. The reality facts about using messaging apps for businesses, especially for big companies, is that it can be hard to attend every time a customer sends a message. Imagine having to reply to thousands of messages within your work hours, and most of them are asking the repeated question!

So, what do you do to keep up with your customers and answer their queries? Enter the chatbot-an AI program that can made-up a conversation with a user in natural language. Businesses can now set programmed answers to the frequently asked questions of their customers or help them find and buy a product they like. This suggestively reduces the time that's required for human involvement and response, thus, saving time and money.

### 5. Speech Recognition

Currently, we already have similar AIs with speech recognition abilities. Ever heard of Siri, Google Assistant, or Alexa? These are just some of the most popular chatbots that use speech recognition. These AIs can recognize spoken words and/or convert them into the text which execute the command. Speech recognition is even used in various apps such as Google Maps, Shazam, and other hands-free systems. So how can marketers take benefit of speech recognition for their campaigns? Well, >55% of households will have a smart speaker by 2022 from just 13% in 2018. Moreover, sales from voice spending are expected to jump to USD40 billion in 2022, up from just USD2-billion in 2018. If the data are to be believed, this speaks (pun intended) volumes, in terms of the need to use speech recognition in your marketing campaign.

### Impact of AI on Consumer

As internet has just carried so many favoured circumstances from customer point of view, like as automatic approval and similar product approach (Grewal, Roggeveena, & Nordfältba, 2017), less buying time (Moncrief, 2017), or customer service conformation(Jordan, & Mitchell, 2015), AI moves one step ahead and provide a new contingencies in marketing activity. The use of AI in marketing suggest a whole spectrum of convenience that AI offered to consumers, which is analysis from the collected examples of AI application.

- Improved processes which is provided more convenient and quick shopping time (e.g automatic payment, the better quality of search engines, 24/7 customer services.).
- The utility like mass scale hyper- personalization, after-

sales which gives the new consumer experience via these services and that makes extra additional value going beyond the basic product.

- A new dimension of the consumer-brand relationship delivered by building surprise and delight minimised post-purchase dissonance thanks to the possibility to test the considered product virtually, elimination of the process of category learning, and finally taking advantage of benchmarking against other users.

### The Future Impact of AI in Marketing Management

The new approach will surely require to fulfilled the task in marketing team, when it comes to marketing management AI has a significant impact on contemporary.

- **Elimination of Laborious and Time-Consuming Activities:** AI automates routine and repeatable tasks (e.g. data collection and analysis, image search and adaptation/processing).
- **Bigger Significance of Creative and Strategic Activities:** Precise analyses performed by AI rises the role of creative and strategic activities to build competitive advantage.
- **Design Innovations:** AI redefine the way the value is distributed to the customer and increase the role of finding new solutions through design.
- **Developing New Competences in the Marketing Team:** AI requires incorporating data scientist skills as well as a considerate the new technology possibility in the marketing team.
- **A New Marketing Ecosystem:** The complexity of AI increases the role of companies producing AI solutions. Due to the current level of AI advancement (the level of Artificial Narrow Intelligence), there is a need to develop a new model of cooperation with AI entities offering data engineering or ML tools.

### Results

AI is going to have a full scope in future of business or in any field regarding anything where technology used because AI will make human work cut down to greater extend as human can only manage the machine.

### Conclusion

The scrutinization confirmed that AI is applied in various area of marketing and sales. As research also build the framework to understand regarding the AI impacts on business and how its changes the perception of business by consideration of adopting the various technologies. The paper is also discussed about the application of AI in marketing and sales arena, that shows how marketing and sales are getting changes the way to do marketing with AI and the market practisers like Amazon, Google, Facebook etc. are implement the AI in its operational level to their business. This may lead to the facts that we are dealing with the first instance of practical application of AI, and the gigantic companies are executed these new technologies as an experiment with it. The cost related to the development of new technology concepts results to putting these innovations in caution because it is too costlier.

But when analysis the practice product popularity with AI, it seems that the first implementation inspire trust to AI solution and companies are more willing to get opportunity of them if they are persistently getting a good result.

The analysis of collected various different examples shows that AI offers a new quality to consumers life and it provides

the easiness to them in the form of convenient shopping, or the possibility to ignore the wrong decision to buy something. It tends the marketing area towards the new dimension and in future it totally transforms the way of marketing and sales.

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