

## The study of use of artificial intelligence in changing dynamics of Market research

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### **Abstract**

*Today, we are in the era in which it is not possible to imagine a world without the use of Artificial Intelligence (AI). It has become the buzz word of the decade. Artificial Intelligence 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. It is the ability of a computer program or a machine to think and learn like human beings. Presently the application of artificial intelligence is evident in almost all the sectors. It is widely used in Healthcare and medicine, Education, Marketing, Retail and E Commerce, Public relations, recruitment and human resources and Research. The major sub- fields of Artificial Intelligence include Machine Learning, Neural Networks, Robotics, Expert systems, speech processing and Natural Language processing. Market research is an organized effort to gather information about the target market or customers of the company and analyse the data for further decision making. It encompasses both qualitative and quantitative techniques. It is a very important component of business strategy. Use of Artificial Intelligence is becoming more prominent in Market research today. By implementing AI, an organization can minimize their costs by cutting the time it takes to conduct research. The present study attempts to analyse the impact of the use of artificial intelligence with special focus in Market Research.*

**Key words:** Artificial Intelligence, Market Research, Organization

### **Introduction**

John McCarthy first coined the term artificial intelligence in the year 1956. The English Oxford Living Dictionary defines Artificial Intelligence as: “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.” There is a lot of marketing buzz and technical spin on artificial intelligence today.

### **Review of Literature**

(Geisel, 2018) in the research paper titled “ The current and Future Impact of Artificial Intelligence on business has discussed the impact of artificial Intelligence on Marketing, Sales, Accounting and Finance and

other general areas of business. The author has very well elaborated on the pros and cons on the use of artificial intelligence in business processes and how it will change the way of business in the years to come. (Thomas Davenport, 2019) in the research paper titled” How Artificial Intelligence will change the Future of Marketing” outlines a framework to understand how AI will impact the future of marketing and influence marketing strategies and consumer behaviours.

### **Objectives of the Study**

1. To understand the concept of Artificial intelligence and its use in the present era.
2. To examine the various sectors where artificial intelligence is at its peak.
3. To analyse the impact of artificial intelligence in Market research.

### **Research Methodology**

#### **Sources of Data**

The findings are mainly sourced from Secondary data. Books, Journal articles, magazines and e-resources are used for the purpose of the study.

#### **Limitations of the study**

1. The data is mainly sourced from secondary study which is a major limitation.
2. The study mainly focuses on the use of AI in Market research

### **Artificial Intelligence redefining Market research in the present era**

AI will virtually change all the dynamics that define traditional market research — and it is already doing so. Prior to recent AI-driven innovations, market research was largely immune to the digital revolution over the past decade or two, aside from the limited introduction of automation. AI will change market research in a fundamental way, addressing costs, time, distribution and application.

The use of algorithms and Machine Learning is making market research faster and cheaper, cutting down project timelines from weeks and months to hours and days. That change alone is making the use of market research feasible beyond big decisions; With quick results, it’s possible to apply AI-driven market research to day-to-day decisions.

The ability to include real-time data from a variety of sources in market research projects is another fundamental change. Now, it’s possible to add up-to-the-minute data from sources like sales, texts, social media, behavioral information, and passive data, which can transform market research from a backward-looking analytics function to a future-focused discipline.

- Companies can have a cut back on their marketing efforts as AI driven market research will deliver a scalable impact
- The companies that incorporate AI-driven research into their operations first can gain a sustainable edge, as AI gets smarter over time.

- AI driven Market research is very user friendly it does not require a team of experts to operate it
- Users can go to a portal and simply ask a business question, and Natural Language Processing (NLP) capabilities enable the AI solution to access the right data and return actionable recommendations in language anyone can understand, which means more people can use market research across the enterprise.

### **Industries Touched by AI**

Artificial Intelligence is a science that is truly industry agnostic. AI has improved industries that are completely unrelated to each other.

- **Agriculture:** Smart farmers use computer vision and cutting edge AI techniques to automatically identify crops that are ripe and ready to be harvested, hence improving their overall efficiency.
- **Academia:** Educators today have incorporated AI-based innovation to grade homework, understand and act on student sentiment, and decide the subject matter.
- **Mining:** AI has been used to identify large ore deposits for sustainable and profitable mining practices.
- **Retail:** The retail industry has been completely revamped with the aid of AI-based innovation. The gradual shift of the retail industry to personalization can be credited to the retail technology based on AI techniques.

### **The study reveals the following Findings about the use of AI in Market Research**

Use of Artificial Intelligence in Market Research is improving the efficiency of people in different ways.

- a) Automation helps to perform the tasks more efficiently.
- b) It enables to generate insights from large amount of data.
- c) It also helps to enable interactions with technology via natural language conversations.
- d) It enables the businesses to survey the market continually, rather than dedicating specific time , labour and money to the process.
- e) AI solutions are producing insights in seconds that used to take teams of people days or weeks to produce. Early adopters are seeking financial benefits already.
- f) Use of AI in Market Research is the insight time involved in creating an overview of customers' needs is cut down enormously

### **The Future of AI in Market Research**

It is a fact that we are still at an infancy stage of artificial intelligence and in the future it will have a much wider impact on market research. These technologies have the potential to change or even revolutionize existing businesses, systems, and processes. AI and machine learning create new ways to help us analyze this information. The following areas will give an insight into the impact of artificial intelligence in the years to come:-

### **Virtual Market Research and Forecasting**

Conducting a physical Market research may prove extremely expensive for a company. It involves recruitment of the market research team, conducting field visits which are very expensive. The alternative to this could be conducting a virtual market research which may be economical and effective to a company. This could also be used to find the most appropriate price point for a product or forecast how a change in the product attribute might impact sales.

### **Chatbots and Virtual Moderators**

The present day chatbots are limited to pre-programmed questions, presented in a user interface typical of an online conversion. However, as advances in AI continue to develop, so too may these online question delivery formats. The ultimate test will be whether such a tool could interpret answers from respondents in a way which allowed following questions to be tailored and interesting points to be probed. This will signal the evolution from question delivery format to virtual moderator.

### **Conducting Secondary Research**

For most of the small companies conducting secondary research is the most cost effective method that is used. It can also be a valuable tool in larger insight teams when seeking to enter new markets, develop new products, analyse competitor performance or review supply chains.

### **Proactive Community Management**

Behavioral, driven by AI, reduce the risk of disengagement. Behavioral predictions involve analyzing a vast array of data points about community members such as number of logins, pages visited, time between logins etc. to build individual engagement profiles. Once built and compared against disengaged members, the AI is able to identify which members are at risk of becoming disengaged. This allows community managers to provide additional support and encouragement to these individuals, reducing that risk. Over time, this means that a community managed with the assistance of an AI will, on average, lose less members to disengagement than a community without AI support.

### **Recommendations of the study**

- Companies spend so much of time researching, collecting and analysing so much of data that can be done with the use of AI in a very short time. In short, AI is striving towards saving time.
- With the continued development of different AI features like Natural Language Processing (NLP) and Natural Language Generation (NLG), AI is growing its capability to understand different qualitative and quantitative data fed to it. This means programs can write individualized reports based on keywords or subject areas that a client is interested in, which can save hours slaving over PowerPoint.
- It becomes imperative for companies to understand that AI has come here to stay. No company has an escape route and therefore is always better to adopt and adapt to reap the benefits.

### **Conclusion**

AI has affected almost all the dimensions of market research. A survey was undertaken by Qualtrics, which indicated that 96 percent of market researchers feel AI is the next frontier that the industry will achieve in the coming decade. Artificial Intelligence will be a disruptive force in Market research. Automation is

definitely bringing a drastic change in the market research industry. AI enables one to become a more Human business. It has come here to stay.

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