

## CRITICAL ANALYSIS OF ARTIFICIAL INTELLIGENCE-A CASE STUDY OF CHATGPT

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### Abstract:

Artificial intelligence is the technology that studies available data or information to resolve critical problems with an intelligent being. This technology is responsible for the promotion of automation in the business sector. Nowadays almost every business sector is focusing to adopt advanced technology including automation for managing business activities in an effective manner. However, the adoption of artificial intelligence technology is a challenging task for businesses. ChatGPT is an artificial intelligence platform that provides solutions to critical issues or problems. It works like a search engine with advanced features. The unique idea along with user-friendliness is responsible for increasing demand for the platform. This research has focused to study the pros along with cons of artificial intelligence especially ChatGPT. Here primary along with secondary data-gathering techniques have been used for finding a solution to the research problem. At the end of the report, appropriate recommendations have been provided for successfully managing business activities through artificial intelligence.

**Keywords:** ChatGPT, Artificial intelligence, Chatbot technology

### 1.0 Introduction of the research topic:

Artificial intelligence is the technology that supports management to make business-related decisions in an effective manner (Soni, 2020). Nowadays almost every business organization is focusing to adopt digital technology for managing various business activities. ChatGPT is the technology which is providing advanced solutions to humans. This tool has been developed by OpenAI company. The unique idea along with innovative solutions as well as user-friendliness make it more popular across the globe. The business sector can use this tool for offering excellent services to customers. Artificial intelligence plays a significant role in the creation of automation. The use of automation in business activities would help the company to reduce management costs which is very essential for increasing overall business revenue or profit. However, the adoption of artificial intelligence is a challenging task for the business sector as well as for the individual. The management needs to consider different factors such as organizational objectives along with opinions of the workforce and business needs while adopting artificial technology in business management. ChatGPT is a combination of artificial intelligence and chatbot technology (Taecharunroj, 2023). This technology supports conducting market research for producing good quality content. An individual would be able to gain or access accurate information with the help of ChatGPT technology. Management can improve its efficiency and find more accurate solutions to critical business issues through ChatGPT. Not only the individual but also the business sector can use ChatGPT technology for effective business management practices. This research will focus to study the pros and cons of ChatGPT technology.

**1.1 Research Aim:** The aim of the research is to study the pros and cons of artificial intelligence technology, especially ChatGPT.

### 1.2 Research Objectives:

- To study the benefits and limitations of artificial intelligence.
- To understand the ChatGPT platform.
- To identify the usage of ChatGPT in resolving real-time business issues.

➤ To study the impact of artificial intelligence especially ChatGPT on individual life.

### 1.3 Research questions:

- What are the benefits and limitations of artificial intelligence technology?
- What is the ChatGPT platform?
- How to use ChatGPT platform for resolving real-time business problems?
- What is the impact of artificial intelligence especially ChatGPT technology on individual life?

### 2.0 Research Methodology:

Research methodology defines the tools and techniques along with the approach

### 2.1. Research philosophy

Research philosophy defines the thinking pattern along with knowledge as well as the approach of the researcher while finding the solution to the research problem. For this study positivism research philosophy has been selected for finding an appropriate solution to the research problem. Here philosophy researcher has considered available theories along with knowledge and models as well as a philosophy that is adopted by the researcher while conducting the study and finding a more accurate solution to the research problem (Pandey & Pandey, 2021). For this research, Saunders's onion model has been followed.

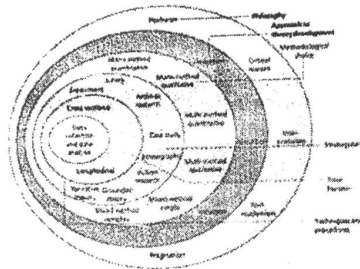


Figure 1 Saunders Research Onion

Source: researchgate.net, (2017)

to analyse the data and find solutions to the research issue. This research philosophy has helped to reduce error and human bias during the study.

### 2.2 Research approach:

The research approach provides a framework for data collection along with analysis as well as finding appropriate solutions to the research problem (Newman & Gough, 2020). It defines assumptions along with beliefs as well as values of the researcher. All these factors including the personality and attitude of the researcher also create an impact on the selection of the research approach. For this study *deductive research approach* has been followed. In the study general rules and modern theories have been used for finding a logical solution to the research.

### 2.3 Research strategy:

This is the third stage or layer of the research onion in which the researcher can decide on methods for the data gathering and analysis. The research strategy would create an impact on the outcome of the study. In this study *qualitative* along with *quantitative* information will be gathered and analysed for finding a more appropriate solution to the research problem.

#### 2.4 Data collection methods:

In this study *primary* along with *secondary* information-gathering techniques have been used. The researcher has used a questionnaire for collecting primary data for the study. The Internet was the technology that has been used to collect secondary information for the study. For collecting secondary data sources such as research journals along with official publications as well as various books and news articles has been studied. The use of surveys or questionnaire has helped to reduce the research cost and complete the study within the limited time limit.

#### 2.5 Sampling:

Sampling refers to the selection of a particular group of people from the overall population (Andrade, 2021). The use of an appropriate sampling method for selecting a particular group of respondents would help to reduce the research cost as well as save time. For this study, a *systematic random sampling* method has been used for selecting respondents. The sample size of the study was 50 respondents. People who are working in the corporate sector have been considered as respondents while collecting primary data for the study.

#### 2.6 Ethical implications:

It is the responsibility of every research scholar to follow all the ethical principles along with standards as well as rules and regulations while conducting the research. The researcher should protect the basic human rights of respondents. In this study, the researcher has taken consent through consent forms from all the research participants. Apart from that, all the primary and confidential information has been stored in the personal cloud. Only the researcher was able to access that information for the research purpose. These practices have helped to protect the personal and confidential information of the respondents.

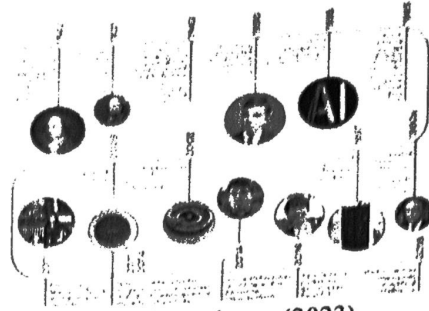
### 3.0 Literature Review:

#### 3.1 Introduction:

According to (Xu et al., 2021) artificial intelligence is the technology that can be used to perceive, synthesize as well as infer important information with the help of artificial knowledge or machinery. With the help of artificial intelligence technology humans can find the best possible solution to critical problems. In simple words, computer-controlled robots perform various tasks which are related to intelligent beings. This technology not only helps the individual but also supports the business sector to manage the business in an effective manner. This literature will help to study the evaluation of artificial intelligence technology and its usage in business management.

#### 3.2 Discussion:

Artificial intelligence was introduced in the year 1642 by Blaise Pascal by inventing a mechanic calculator (qbi.uq.edu.au, 2023). This was the first digital calculator. With the help of this invention, people started to use machines for mathematical calculations. In the year 1837 Charles Babbage developed a programmable machine. In the 20<sup>th</sup> century, the major invention in artificial intelligence and automation was done by various inventors. The use of automation and artificial intelligence in business management has supported the business to improve business productivity and performance by reducing costs.



Source: qbi.uq.edu.au, (2023)

In the year of 2011, Google developed the first self-driving car by using artificial technology. Demand for automation and robotic technology is also responsible for the adoption and promotion of artificial intelligence technology. As per (Loideain & Adams, 2020) personal assistants such as Amazon Alexa, Siri, as well as Cortana, are products which are manufactured by the business sector by using artificial intelligence technology. These products provide instant solutions to the issues. It also helps to save time and cost of critical problem-solving. Artificial intelligence technology can be used to manage all business operations in an effective manner. The business can implement automation business activity through artificial intelligence. It also provides information about business insights through analysing data or information related to customers along with employees as well as other important business aspects. This supports the business in making important and critical business decisions. Currently, there is cut-throat competition is present in approximately all industries and business sectors. With the help of artificial intelligence and automation, the company can gain a competitive advantage over other companies or firms which belongs to the same sector or industry. According to available reports and studies, India is the 6<sup>th</sup> largest country in terms of adoption of advanced technologies including investment in AI technology (indiaai.gov.in, 2023). Nowadays Indian companies are focusing to adopt artificial intelligence technology for managing various business activities. This activity also enables Indian businesses to create a unique brand image and improve business competitiveness over multinational firms.

Based on the research by Rathore, (2023), medical progression along with automation as well as smart decision making and improve customer experience are the major benefits of adopting artificial intelligence while managing the business. Companies can study various factors and business aspects for making effective business decisions. Artificial intelligence also supports businesses to study the effectiveness of available options. This would help to reduce the risk of failure. Auto-reply emails along with appointment reminders as well as feedback surveys and automation in the production would help the business sector to improve productivity and reduce management costs. Companies can improve customer experience by using artificial intelligence technology. With the help of artificial intelligence, the business sector can resolve customer queries along with complaints as well as understand the satisfaction level of the customers. Apart from that businesses can conduct research as well as analyse the available data in order to find and understand various business aspects.

As per McKinsey reports adoption of artificial intelligence will increase in the upcoming period (mckinsey.com, 2023). However, the business sector also needs to be focused on managing risks that are associated with artificial intelligence adoption and management. Cyber security is a major risk that may create an impact on the protection of important business information. Business organizations need to develop strategies for overcoming risks in managing artificial intelligence technology. Apart from dependency on the technology and biases are the other risks that may create an impact on the technology adoption process. Unemployment is one of the biggest economic issues which is affecting the financial situation of the individual and country to a large extent. Automation and artificial intelligence could reduce the needs of the workforce due to which unemployment may increase and the income level of the people gets affected. Social manipulation by using artificial intelligence algorithms

is one of the biggest fears which may create an impact on society or community.

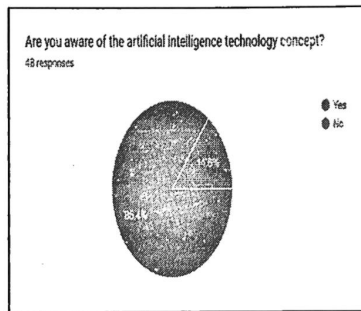
### 3.3 Literature Gap:

There is limited information is available on the selected research topic. Many researchers have used secondary information for finding the pros along with cons of artificial intelligence technology. This would reduce the research's authenticity and validity. Apart from that in order to find the more appropriate solution to the research problem technical knowledge is required.

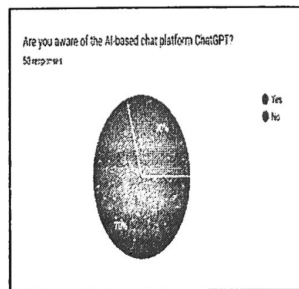
### 3.4 Conclusions:

From the study of various literature or secondary sources, it can be concluded that artificial intelligence technology is an essential part of the personal life of an individual as well as the business sector. In order to improve business performance and productivity, companies are focusing to adopt artificial intelligence in business management. However, the business sector also needs to consider the risks associated with artificial intelligence adoption. Cyber security along with job losses as well as social manipulation and biases through AI are the major risks in artificial intelligence management and adoption. The business sector needs to develop strategies for managing these risks while using artificial intelligence for business management.

### 4.0 Data Analysis and interpretation:

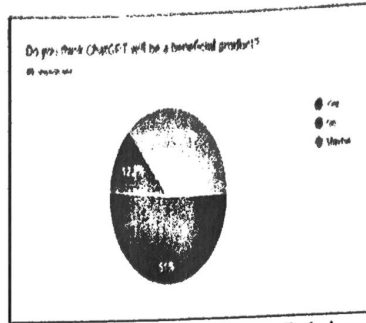


From the above responses, approximately 85.4% of respondents are aware artificial intelligence technology concept. The remaining 14.6% of respondents are not aware of the concept including its benefits and limitations.



Almost 70% of respondents are aware of the ChatGPT AI-based platform. The remaining 30% of responders are not aware of the ChatGPT platform.

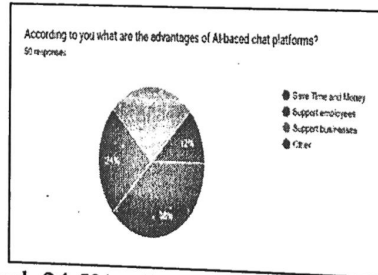
Approximately 49% of respondents used ChatGPT platform for various purposes. 51% of respondents had not used the platform.



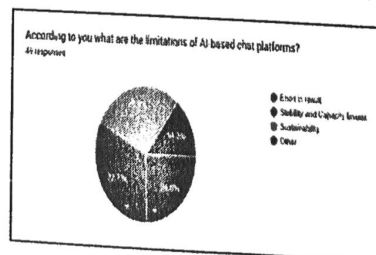
According to 51% of respondents, ChatGPT will be a beneficial product for the individual along with the business sector in the upcoming period. 12.2% of respondents do not agree with the statement. The remaining 36.7% of respondents are not sure about the future result of the ChatGPT. According to 49% of respondents, ChatGPT will create an impact on the employability or the employment status of an individual. 16.3% of respondents do not agree with the statement. The remaining 34.7% of respondents are not sure or neutral about the impact of employability.

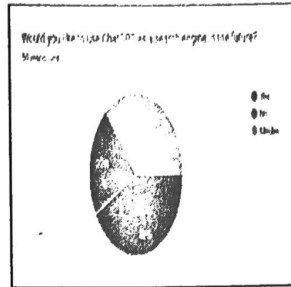
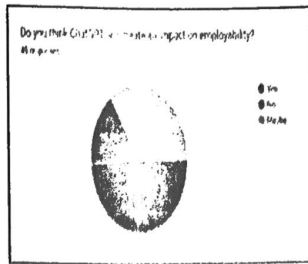


As per 38% of respondents AI-based chat platforms would help to save time and money of the individual and business sectors. According to 26% and 24% of respondents chat platforms support businesses along with employees, respectively. The remaining 12% of respondents selected other options for the benefits of AI-based chat platforms.

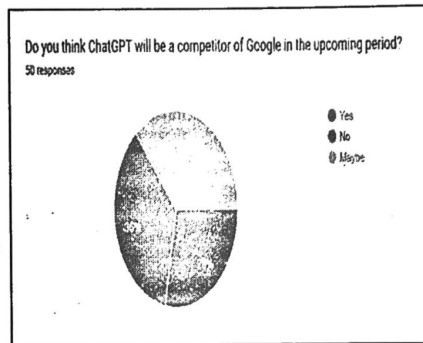


According to 32.7%, 28.6%, and 24.5% of responders, stability or capacity issues along with sustainability and errors in results are the major limitations of AI-based chat platforms respectively. The remaining 14.3% of respondents find other benefits of AI-based chat platforms.





According to 42% of respondents would like to use ChatGPT as a search engine platform in the upcoming period. 36% of respondents feel neutral about the usage of ChatGPT. Approximately 22% of responders would not like to use ChatGPT as a search engine option in the future. Almost 36% of respondents think that ChatGPT will not be able to create competition for Google search engines. according to 28% of respondents, ChatGPT platform will be a competitor of Google in the upcoming period. The remaining 36% of respondents are not sure about the result.



#### 4.1 Findings:

From the study and analysis of primary information, it is found that Artificial intelligence technology has created a huge impact on individual life along with the business sector. Development of Internet technology along with covid pandemic as well as progress in mobile technology would be responsible for increasing the use of artificial intelligence technology (Mhlanga, 2022). ChatGPT is a popular artificial intelligence platform that provides support to individuals along with the business sector for managing critical situations. Social media is a digital platform that also plays a significant role in creating awareness of ChatGPT platforms. The unique idea along with attractive content as well as accuracy and less time for finding the solution would be the reasons behind the increasing use of ChatGPT. This technology also can be used to find solutions to the business problem. The platform also offers various benefits such as employee supports as well as provides attractive solutions to the customers. The company can use this technology to understand the existing consumer demand along with specific consumer needs as well as the existing satisfaction level of customers. On the other hand, managing the security of the business network along with sustainability as well as errors in results and stability or capacity issues would be the limitations of artificial intelligence-based chat platforms. increasing Internet awareness would be responsible for creating network threats ChatGPT platform.



However, developing a digital platform or advanced search engine would be a challenging task for ChatGPT. The company needs to invest in research and development for creating a search engine platform such as Google.

In the case of ChatGPT Lack of emotional intelligence along with common sense would be the primary limitations of the platform (Zhou et al., 2023). This technology would not be able to use common sense like the human mind. ChatGPT is facing difficulties in understanding sarcasm along with humor. The platform would not be able to access a large amount of information. Lack of experience along with expertise could affect the result. Sometimes ChatGPT faces challenges in long-form structured information or content. It is best suited for generating short information or a summary of the content. Apart from that grammatical mistakes along with errors in the result also affected the credibility of the information which is generated through ChatGPT. The platform also faces difficulties in resolving critical mathematical issues or problems. Due to all these limitations business sector or individual person cannot depend upon the ChatGPT for content generation. It is the responsibility of the business firm OpenAI to invest in promotional activities to increasing the awareness of the ChatGPT platform among people.

### **5.0 Conclusion:**

From the study and analysis of the above information, it can be concluded that the adoption of artificial intelligence technology would be a challenging task for every business sector. The business sector needs to study factors such as the pros along with cons of artificial intelligence-based tools. This study today would help the business sector to reduce the risk of losses or failure in the future. Businesses can develop a risk management plan through artificial intelligence technology. ChatGPT is a popular artificial intelligence tool that supports individual people along with the business sector in finding solutions to critical personal or professional situations. The use of the ChatGPT platform also helps the business sector to reduce time and develop unbiased business strategies. ChatGPT tool can understand multiple languages which provides an option to the user for finding a solution to a specific problem in their native language. The platform provides user-specific or personalized content for the final user. Heavy investment in research and development would help to increase the accuracy of the result. The business sector can use ChatGPT tool for providing customer services to customers. It is the responsibility of every business organization to provide accurate information about specific products or services to customers. This platform would help the business sector to provide excellent customer service along with understanding consumer experience and maintaining a positive relationship with existing customers. This practice would help the company to increase the satisfaction level of consumers which is very essential for creating a loyal consumer base. Lack of common sense along with experience, as well as difficulties in the understating context of the research and errors in critical mathematic operations, would be the limitations of ChatGPT.

### **5.1 Recommendations:**

- The business sector should study the pros along with cons of artificial intelligence technology before adopting the technology for business management activities. This practice would help the business sector to reduce the risk of losses as well as develop a plan for risk management.
- The management should not completely dependent on artificial intelligence. Lack of expertise along with experience could affect the accuracy or credibility of the outcome.
- Business sector needs to develop an appropriate plan for the adoption of artificial intelligence technology in business activities. Apart from that the business sector should organize training programs for employees. This activity would help the business houses to improve the knowledge or skill level of the employees which is very essential to reduce the barriers or resistance from the workforce.
- ChatGPT can be used as a supportive tool for critical problem-solving activity. However, management cannot be completely dependent on the platform for business management.



- Every individual needs to focus on improving technical knowledge along with skills. This activity would help the person to create a unique image as well as gain a competitive advantage over other people.
- OpenAI should invest in promotional activities for creating awareness about the artificial intelligence platform ChatGPT among people.

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