

# Artificial Intelligence in the Corporate World: A New Frontier in Business Innovation

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Publication Date: 2025/06/07

**Abstract:** Artificial Intelligence (AI) is reshaping the contours of modern business. The main function of AI applications in the business includes analysis of data and decision-making through automation. It also engages in more customer services today. Predictive analytics forecast market trends to AI-driven chatbots enhancing customer service, businesses are leveraging intelligent systems to drive growth, improve efficiency, and gain competitive advantage. However, the adoption of AI is not without its challenges, and organizations must navigate a complex terrain to realize its full potential.

**How to cite:** Jibi Mathew; (2025). Artificial Intelligence in the Corporate World: A New Frontier in Business Innovation. *International Journal of Innovative Science and Research Technology*, 10(5), 3794-3798. <https://doi.org/10.38124/ijisrt/25may1857>

## I. INTRODUCTION

Artificial Intelligence (AI) has emerged as new dimension to the corporate business and development in the business field. AI is an innovative threshold in the corporate world, revolutionizing corporate operations, in taking decisions, and more becoming more lenient to customer. The article describes the integration of Artificial intelligence in the corporate world which tries to understand a comprehensive outlook on the AI's impact in the business corporations. Many ways have been applied by the artificial intelligence (AI) to improve efficiency and improve the profit. With the advancements of AI, companies found themselves AI as the precious resource of greater benefits.

## II. ARTIFICIAL INTELLIGENCE IN THE COMPANIES

AI is used in various ways which really enabling productivity to be increased and to get into the new employment system. The development of computer systems from robotic machines to the deep learning Artificial intelligent system has made a lenient approach to the corporate world in developing the economic profit.<sup>1</sup> The business corporations today are engaged in with the new technologies of AI to get rid of the lengthy chain of business operations in various fields of company structure such as generating new contents, creating innovative IT operations, helping in cybersecurity measures, encouraging sales

operations and many more business practices. By the improvement and evolution in the field of AI technologies, the business operations get new branded structure and growth.<sup>2</sup>

Artificial intelligence supports the human workspace. It gets into optimization of workforce and makes business operations in optimizing workflows and making business operations more effective. Advantages of the AI operations in the corporations include generating machine learning algorithms in collecting data and giving profound and clear information and providing meaningful insights and more importantly predicting the future of the business undertaking. Predicting future outcome of a company is one of the innovative elements of AI systems which can enable a company to invest accordingly and tackle and mitigate the risks. It also empowers various modes of automation process in the business operations which helps to cut short the human mistakes and make easy the workforce for better growth of the company.<sup>3</sup>

Recent development as shown by certain companies, the mode of operations using the AI has become one of the main features of the business world today especially after 2017.<sup>4</sup> It happens by organizational capacity to adapt the AI variants in the companies according to the specific necessities. Many companies like McKinsey expect the large investment will be made in AI technologies for the better

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- [1]. "AI Guidelines for Business Ver1.0," *Ministry of Economy, Trade and Industry, Government of Japan*, (April 19, 2024). Sakai et.al., "Japan Weighs Regulating AI Developers, Following U.S. and EU," *Nikkei Asia*, (May 2, 2024).  
[2]. *Id.*

- [3]. P. J. Bentley, *Artificial Intelligence and Robotics: Ten Short Lessons*, 5–20 (JHU Press 2020).  
[4]. A. Mohanty & S. Sahu, "India's AI Strategy: Balancing Risk and Opportunity," *Carnegie India*, 12 (February 22, 2024).

economic hike in the companies in the coming years.<sup>5</sup> Each business type is helped accordingly by the AI tools to increase the business profit in various fields of the company.

In general, employment, productivity, major decision making, tasking, data analysis are the major areas which a company can adopt the AI tools to be used more efficiently to withstand in this AI driven world of business. The use of high-quality data and high-power computer systems have become a new innovative measure in calculating the economic development of a company which uses AI applications. The technological advancement in categorizing and identifying the data, making predictions over the business productivity, identifying the possible errors and have customer conversations etc. have with the ability to categorize data, make predictions, identify errors, have conversations, and analyse facts as human beings do have shown new path to the companies to earn more from limited investment.

AI in the business field most of the time mimic the human knowledge and human intelligence. Early when the robotic machines were used, the intelligence used was of human, but the activities done was by the machine. In the era of AI, the intelligence used in the companies are artificial which substitute human intelligence partially or fully according to the special are fed into the AI systems through deep learning and enabling big data usage. Machine learning, deep learning and natural language processing has are the key operational techniques of AI in the business operations.<sup>6</sup> The components used by the AI systems in the business are explained in the following discussions.

#### ➤ *Machine learning algorithms in Business*

Large scale predictions and various classifications are made by the AI algorithmic systems that have received the particular input data on basic business operations.<sup>7</sup> The algorithms are trained in such a way to identify the particular patterns and discover the differences and project the main area of future high revenue sales.<sup>8</sup> The algorithmic machine learning has become one of the sources of decision making in the company why the artificial intelligent data given to an artificial intelligent machine installed into the company. The human experts who design and form the categories of algorithms will analyse the business applications and accordingly set apart the AI systems.

From this structure of artificial intelligence, a company or an organisation of business can look into the use of algorithmic methods to produce the large-scale data base for

the business and key insights on the business management and get proper decisions which are important tool of finance decisions which will enable a company to go forward.

#### ➤ *AI Deep Learning in Business*

The variant of deep learning is the basic element of machine learning which is used in the company's mode of AI operations. It gets into the automatic functioning without the human assistance. This enables a company making automated system as it is designed likewise to make the human capabilities of learning as its own with human intervention afterwards. This is the area a business production is carried through to enable more productivity using AI tools. Today most of the generally known modes of AI learning system like chatbots, machine learning language processing are all used in the learning system of AI in the companies.<sup>9</sup> The analysis of the data already installed and given and which is user accommodated, the algorithm can get into the action of identifying it through deep learning.<sup>10</sup> Deep learning algorithms can give exact and particular information than the general learning which even can collect data from text and images of unstructured character without any human intervention.<sup>11</sup> The general learning most of the time gives the overall or almost information of the data, however, the deep learning goes specific and gives the exact information and data to the companies as a human intelligence can do.

#### ➤ *The AI Variant Natural language processing (NLP) in Business*

NLP or Natural language process is another variant of AI which "enables computers and digital devices to recognize, understand, and generate text and speech."<sup>4</sup> By this AI tool the language and speech are processed and recognized by the machine and enables the predictions, decision making and customer services more effective. There are various types of NLP which are chatbots on customer service and various digital assistants and voice operated technologies of GPS systems. As the basic feature of AI machine learning algorithms and deep learning models the natural language processing extract the needful insights from the voice and texts data realms. The planning and the decision making of a company can be facilitated more and more using algorithmic methods of the AI.

#### ➤ *Computer vision*

It allows digital images to be extracted form AI tools to enable the companies to get into more knowledgeable factors of the business through various visual means. The use of computer vision is evident in the algorithms of deep learning and identifying the imagery through digital means. Today the

[5]. M. Bal and N. S Nappinai, "Crafting a Liability Regime for AI Systems in India," *Esysa Centre and Cyber Saathi Foundation*, (September 2024).

[6]. M. E. Kaminski, "Regulating the Risks of AI," *Boston University Law Review*, 67(103:1347 2023).

[7]. A. Kourinian & M. Brown, "Data Collection & Management, Overview - Conducting an AI Risk Assessment," *Bloomberg Law*, 56 (2024),

[8]. C. Boulton, "Introducing GAIL: Great Wolf Lodge's AI for Pinpointing Guest Sentiment," *CIO*, (September 5 2019).

[9]. *Id.*

[10]. A. Agarwal, *Prediction Machines: The Simple Economics of Artificial Intelligence*, 33 (Oxford University Press 2018).

[11]. P. R. Daugherty and H. J. Wilson, *Human+Machine: reimagining Work in the Age of AI*, 67 (Blackwell 2018).

advancement of technology gives the chances to develop more accurate computer vision which largely used in business operations of the companies. Computer vision is used in detecting the manufacturing errors which are not noticed by the human employees and experts.<sup>12</sup> In the business fields especially in the production units of the companies, it is important to identify the quality and the mistakes arisen from the products. Manually doing this verification is a hazardous job today and algorithmic computer vision method used by AI tool will certainly detect by itself and will save efficient ways to promote business efficiencies and profit.

#### ➤ *Control of work force and employment*

Another advantage of AI implementation in the business field is to control the workforce and employment. The speed determination of the productive system is a basic structure of any business system that can make a profit that is more compared to the human workmanship. Business strategy if accurate and having less errors, then the result will be tremendous and the AI use in this area is well thought of today in the strategic planning and it has been emerged as to facilitate business system. The strong data governance through the AI control business can get rid of data breach tendencies.<sup>13</sup>

The use of high advanced data analytics, the workforce is governed and controlled properly to get into the digital innovations. The systems are placed properly to the organizations and the result will be astonishing to get into the insights to build training models which can instruct the AI systems.<sup>14</sup>

### III. AI OPERATIONS IN THE CORPORATE SECTORS

Entrance of AI in the market sector of the business field is making the earning of the companies and productivity growing in a numerous scale. The advantages of AI are which requires the human efficiency to improve the operation value of AI systems in the companies. The various sectors which use AI in the business corporations are discussed below.

#### ➤ *IT operations*

The IT operation of the business corporations use AI systems through deep learning of variant of machine learning and NLP which enables the business management to rely upon more accurate data supplier.<sup>15</sup> The machine learning assistance of AI systems allows the IT operation team to go through large amounts of data within the short span of time.

It also assists in detecting the issues finding out the errors and correcting them and guide the IT operations.<sup>16</sup>

#### ➤ *Marketing and sales*

When a company gets the marketing tips and details through the AI systems, it will enable the production units act according to the trends which are explained and given in detailed by the algorithms and process of the AI machines. It will enable the market to fix the price and specify the product quality and quantity to get into the large-scale business for the short-term maximum profit of the company. The identification of big data in short time by the AI tools make the marketing and sales very much effective today.<sup>17</sup> It gives the clear idea of the position of a company in the market where the tight competitive world of business exists.

#### ➤ *Customer service*

Every company has a set of stakeholders. For example, management, owners, government, customers, society and shareholders. Among them customers are the stakeholder who are beneficiary of the company. Without customer care and treating their needs there is no company which can move forward or sell their product in the market efficiently. In this regard, AI enables the 24/7 given customer service. AI tools can resolve the issues of customers without the proper intervention of any human agent. It will help any business system having customer service more efficient considering human workforce which make errors and gets into lengthy process.<sup>18</sup>

#### ➤ *Content generation*

Another innovative field of AI in the form of content generation is called generative AI. By the help of AI tools, the content creation is become original and easier. These tools create and generate the content-based images and text based on the inputs given and designs drawn. Usually writers and designers use the generative AI to get into the brainstorming works and other related task.<sup>19</sup> As the new element of AI tools, the generative AI becomes the most innovative action of today and it can be assumed that by 2025 the generative AI tool can create 30% of creative and outbound marketing content.<sup>7</sup> The issue related to AI generated content today is the lack of regulation. The need for the human employees to guide the use of AI in creating and using content which must be alert to prevent the copyright violations, misinformation, misrepresentation and any other unethical practices.<sup>20</sup>

[12]. B. Molina & J. Guynn, "Facebook Changes Name to Meta: Mark Zuckerberg Announces Company Rebrand as It Moves to the Metaverse," *USA Today*, (October 28 2021).

[13]. T. H. Davenport, *The AI Advantage: How to Put the Artificial Intelligence Revolution to Work*, 45 (LexisNexis, 2023).

[14]. E. Brynjolfsson, "The Business of Artificial Intelligence", *Harvard Business Review*, 34-76 (2017).

[15]. K. Hao, "Doctors Are Using AI to Triage COVID-19 Patients. The Tools May Be Here to Stay," *Technology Review* (April 23, 2020).

[16]. *Id.*

[17]. *Id.*

[18]. S. MacDonald, "New 2021 Study: 62% of Companies Ignore Customer Service Emails," *Super Office*, (March 24 2021).

[19]. H. A. Kissinger et.al., *The Age of AI: And Our Human Future*, 77 (Banton 2021).

[20]. *Id.*

### ➤ *Cybersecurity*

Many AI tools are applied in many branches of business especially in the field of cyber security. Many branches in business administration can be checked up by the AI tools to create a vigilance towards data protection, prevention of infringement of data collection, misrepresentation etc.<sup>21</sup> Protecting customer data and detecting anomalies are basic care of the customer trust in the companies and business operations and due to the inclusion of AI tools of cybersecurity, the functions become more clear and transparent.<sup>22</sup>

It is notable that cybersecurity has a very significant role in the companies protecting the data of the company and to avoid fraud. Today, simulations are more than the original. It seems to be unavoidable danger in many companies about the cyber security. It is important to have AI assistance in this regard to get rid of such fraud and misrepresentation in the field of cyber issues.

### ➤ *Supply chain management*

Predictive analytics is one of the most important features of a company which aims at economic development and wealth maximisation. There are various tools to be used for the same to analyse the future. Normally before the AI inclusion, the companies would make the predictive analysis through the market tendencies and market experience. However, this could be replaced today by the AI tools which could exactly analyse the system of supply chain management which comes to the help of predictive analytics to forecast any future pricing and material costs.<sup>23</sup> Various need of the companies and operations are largely depending upon the AI tools today New systems and AI variants are detected and found by various experts today to assist the industries to fix the future tendencies of corporate world.

However, most insights that companies rely on today come from querying a database by aggregating numbers or plugging numbers into set formulas. These data and insights are answering the questions and queries in the companies. But it should be very specific to know the item on which the complaints are raised and the demands are on specific area of product. Such complicated questions are answered easily by the AI tool in the company.

Discussions on AI especially on the business productivity in the companies, the arguments and thoughts revolve around automation, increasing productivity, and eliminating inefficiencies. Every company when it is automated in its skill and production, it leads to the employment easiness and less investment and more efficiencies in terms of production and profit. The

advancement of AI will be looked forward in the companies as it creates more income to the company through applying its various tools. Still, for AI to be truly successful, it must ultimately not only pay for itself but create additional revenue (or reduce costs) for the organization. By combining many of the first three factors—eliminating inefficiencies, reducing human errors, and providing insights—in the long term, AI often results in an increase in a company's bottom line.<sup>24</sup> Let's look at several examples of how this plays out.

## IV. CHALLENGES AND CONCERNS OVER AI APPLICATIONS IN BUSINESS

### ➤ *Concerns over Technology Dependence*

The traditional and conventional business systems generally worry about the transformation the company has to make when the technological advancement are calling them for. However, not all the business owners cope up with the systems which are AI driven and keep up with the old manual systems. The impact will be the downfall of the company in the market competition. However, there are also concerns which are raised by the business owners that the companies are going through the path of depending overly on technology. Many surveys show that many companies are over dependent on AI tools to facilitate the business operations but less cared for human workforce and innovation created by human intelligence. Another concern of the business owners and management are that the efficient use of AI and its expertism demands more from the company to calculate and function the AI area of operations.

### ➤ *Concerns over Workforce Reduction*

The most important concern over the AI inclusion in the corporate world is the reduction of workforce. This concern has reasonable backups. Every company is built with the interconnectivity of stakeholders. It includes shareholders, management, employees, government, customer, society etc. when the AI tools are replacing the human intelligence and workforce, the job loss is awaited danger which has to be mitigated by every company. when the AI tools are included in the company, considerable reduction of workforce is an essential reality which has to be looked after. However, the reduction of workforce will reduce investment and increase productivity. Various studies and data gives a clear picture that 33% of the employees of the companies think that AI inclusion in the companies will reduce the workforce.

### ➤ *Concerns over Misinformation From AI*

Today the inclusion and advancement of AI has created a sudden impact in every field. The positive and negative impacts are created at the bottom line. One of the negative concerns over AI is the misinformation.<sup>25</sup> AI creations are

[21]. M. Brundage et.al., *The Malicious Use of Artificial Intelligence: Forecasting, Prevention and Mitigation*, 60 (Future of Humanity Institute 2018).

[22]. I.H. Sarker, *Machine Learning: Algorithms, real world applications and research directions*, 160 (SN Computer Science 2(3) 2021).

[23]. A. Glaser, "People Who Turned to Upwork to Find Freelance Gigs Say They've Lost Thousands of Dollars to Scams," *NBC News*, (June 1, 2020).

[24]. M. Taddeo & L. Floridi, "How AI can be a force for good", *Science* 361, 751-752 (2018).

[25]. A. Agrawal, "Union Budget: ₹2 Crore for Data Protection Board Establishment, Salary Expenses," *Hindustan Times* (July 23, 2024).

misrepresenting the real and original and cause serious confusion among the customers of the product. The studies reveal that 30% businesspeople are concerned of AI generated data misinformation and while 24% also think that it will certainly affect the customer relationship and business functions. Privacy concern are of 31% in the businesses seriously thinking about the security of the data shared and invested in the companies and their privacy.<sup>26</sup>

## V. CONCLUSION

The business world today is very much after the technological advancement that offer every chance of winning the competition among the industries. the variants of AI tools and which are used in various areas of business are creating an impact that without the technological adherence today especially to the AI machine learning system, there cannot be an existence of business corporations today. Various tools like machine learning, deep learning, image reading etc. have become essential elements in predicting and managing risks in the companies. generally, the impacts of AI in the business are very much productive and positive when the companies consider profit maximization as the primary goal.

There is also certain concern which are there and exist in the business concerns also while using the AI applications in the companies. one among them and probably the most relevant one is the reduction of the human workforce in the companies because of AI inclusion. However, the business owners and the concerned people see the positive impact of AI in the companies, and they all try to adhere with the new and advanced AI tools to be installed in the companies for more productivity and profit.

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[26]. B. Mather, *Artificial Intelligence Business Applications*, 43.