

## Chapter 16

# Role of Artificial Intelligence in Business Dynamics: Opportunities and Challenges

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### **ABSTRACT**

*Artificial intelligence (AI) has appeared as an innovative technology that is restructuring the business operations in maximum business sectors. This chapter highlights the role of AI in business mainly attached with its functions like operations, marketing, finance, selling, R&D, etc. Further, this piece of literature will also discuss its adaptability along with its current potential and future prospects. Artificial intelligence (AI) is an innovative area which is found to be very useful for commercial and domestic purposes. The blend of AI in industry and business can enhance the capacity of production and marketing. Making use of this AI is also providing a competitive edge to many companies. Apart from marketing, it also has the ability to modernize business with inventive ideas. It also acts as a modern tool for complex problem solving and decision making. Hence, the authors will discuss the growth of business using AI aids and its role in functional part of the business.*

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## **1. INTRODUCTION**

Artificial Intelligence dynamic field of computer science that promotes and develops systems and machines which can do tasks like human. AI is a tool which performs task like task that requires human intelligence (Vivek & Yawalkar, 2019). AI targets to mimic human brain through many systems and skills, enabling machineries to recognize language, Patterns, complex situations, and decision making. Covid -19 has brought a transportation change business including entrepreneurs (Bhardwaj et al., 2023a; Sharma et al., 2022). AI is playing in modern business management (Bhardwaj et al., 2023b).It's growing at a very high pace even it helps human for daily routine tasks. One can say it is revolution in games, education, health care, business, finance, and customer support etc. AI is a combination of network, robotics, and computers that helps businesses for its functional and other activities for the smooth and wise conduct of business. Nowadays every dimension of the business is more or less somewhere depending on AI so this problem has been identified to provide insights related with AI in public domain(Bhardwaj et al., 2023b)

## **2. BACKGROUND OF THE STUDY**

Artificial Intelligence (AI) has had a deep bearing on the business dynamics, Innovation in business, renovating the company's operations, decision making, and customer's orientation. AI technologies have become essential to various business progressions which include diverse range of offering along with opportunities. As described by Dan Brown, artificial intelligence's tremendous strength resides in its potential to learn, and this learning process is based on observation and analysis of human culture. Accurate data collecting and careful analysis are crucial firm growth drivers in the cutthroat business environment of today. Human resources, finance, marketing, and production are just a few of the organizational fields where artificial intelligence (AI) has become a disruptive force. Robotic technology has gradually supplanted human laborer in industry since the 19th century. Personal computers and the internet were introduced during the third industrial revolution in the 1970s, automating tasks. Now, the incorporation of digital technologies, such as machine learning and AI, is fundamentally changing how work is done on a day-to-day basis by reducing the workloads of employees across a variety of business tasks(Vivek & Yawalkar, 2019). Business strategies are being redefined by technological breakthroughs, which also enable organizations to use knowledge to their advantage. AI transforms daily life by analyzing data, learning, and attaining goals through adaptive processes. AI is driven by personalization(Kumar et al., 2019).

Artificial intelligence (AI) refers to a specialized collection of computer techniques that enable systems to carry out operations previously thought to be the sole domain of human intelligence. Language translation, visual information interpretation, speech recognition, and decision-making are only a few of these responsibilities (Churcher, 1991). Businesses are renovated by (AI), which also categorizes pioneering efforts. Because of the rapid growth of technology and the reorganization of human resources, AI may strength trades to overhaul their entire novelty process. In the eyes of society and stakeholders Artificial intelligence (AI) symbol of limitless budding area (Kumar et al., 2019). Through algorithmic machine learning and autonomous decision-making, artificial intelligence is now poised to similarly transform various industries, potentially upending industries like finance, healthcare, manufacturing, retail, supply chain, logistics, and utilities. The industrial revolution marked a historical shift in manual tasks. A new era of innovation and potential has arrived thanks to the quick speed of AI development(Dwivedi et al.,

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