IMPACT OF ARTIFICIAL INTELLIGENCE ON INDIAN ECONOMY

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INTRODUCTION:

The Indian economy is rapidly and significantly changing due to artificial intelligence, which is also revolutionizing traditional management techniques. Artificial intelligence (AI) is poised to have a significant impact on the Indian economy. According to a report by NASSCOM, a unit increase in AI intensity by AI-using firms could return $67.25 billion or 2.5% of GDP to the Indian economy in the near term. This growth is attributed to AI's ability to increase Total Factor Productivity (TFP) growth by 0.05% with a unit increase in AI intensity.

In the Indian context, the impact of AI can already be seen in a wide range of organizations and industries. Businesses are using AI to improve operations across all industries, including the financial industry, retail, and manufacturing. Indian banks are using AI, for instance, to strengthen fraud detection systems and improve customer service, delivering a more secure and seamless experience. Similar to this, Indian retailers are using AI to improve supply chains, personalize recommendations, and ensure maximum efficiency. AI is being used by Indian manufacturers to raise quality control standards and promote cost effectiveness, demonstrating the many benefits that AI can provide.

OBJECTIVES OF THE STUDY:

Following are the important objectives of the present paper:

1. To know the Artificial intelligence.
2. To examine the impact Artificial intelligence on Indian Economy.

RESEARCH METHODOLOGY:

The present paper primarily based on secondary data sources. Secondary data have been collected from various sources like Various Reports, Research journal, Text books, Websites ect.

IMPACT OF ARTIFICIAL INTELLIGENCE ON INDIAN ECONOMY:

1. GDP growth:

According to estimates made by the National Council of Applied Economic Research (NCAER), India's GDP will increase by 7.4% between 2022 and 2023. AI is projected to have a significant impact on India's GDP growth in the future years.

2. Job Creation and Redefinition:

While some jobs may be automated, AI is also expected to create new job opportunities in AI development, data science, and other related fields. It will also redefine existing jobs, requiring workers to adapt to new technologies and skill.

3. The Role of AI in GDP Growth:

AI contributes to GDP growth by boosting productivity, facilitating the creation of new products and services, and enhancing global competitiveness through automation, innovation, and data-driven insights. According to the National Association of Software and Service Companies (NASSCOM), AI would contribute $967 billion to the Indian economy by 2035. This will help India reach its $5 trillion GDP objective by 2025 by 10%.

4. AI Impact on Industry:

Artificial Intelligence (AI) is broadly impacting industries by enhancing operational efficiency through automation, optimizing decision-making with predictive analytics, improving customer experiences with personalization, and driving innovation in product development and services. Key sectors like manufacturing, healthcare, and finance are seeing benefits such as reduced costs, increased productivity, better quality control, and streamlined supply chains.

5. AI Impact on Agriculture:

AI can increase crop yields, lower crop losses, and raise the quality of agricultural outputs. AI is being applied in India, for instance, to create early detection systems for pests and diseases as well as to optimize irrigation and fertilizer use.

6. AI Impact on Manufacturing:

AI can assist in automating production procedures, enhancing product quality, and cutting costs. AI is being utilized, for instance, in India to automate assembly line processes and to anticipate and stop equipment faults. AI significantly impacts the manufacturing industry by boosting operational efficiency, improving product quality through advanced defect detection, and reducing costs via optimized processes and predictive maintenance. It also enables better resource allocation, streamlined supply chains, enhanced real-time decision-making, and supports the development of innovative, competitive products.

7. AI Impact on Healthcare:

AI's impact on healthcare is transformative, increasing efficiency and accuracy in diagnostics and treatment, personalizing patient care, and accelerating drug discovery through advanced data analysis and automation. Benefits include improved predictive diagnostics, optimized treatment plans, streamlined administrative tasks, and enhanced patient engagement via virtual assistants. However, challenges remain, including ethical concerns, data security risks, and the need for thoughtful regulation to ensure equitable access and integration with human expertise.

8. AI Impact on Education:

AI significantly impacts education by enabling personalized learning pathways, automating administrative tasks like grading, and providing data-driven insights for teachers, and improving global accessibility through AI-powered tools and platforms. It can also enhance students' learning experiences and equip them with critical skills like digital literacy, while presenting challenges such as potential and the need for responsible implementation to avoid over-reliance on technology.

9. AI Impact on Finance:

AI can assist with the automation of financial services, increased effectiveness of financial markets, and less fraud. For instance, AI is being utilized in India to detect and prevent

financial fraud as well as automate loan processing. Artificial intelligence (AI) is transforming the finance industry by boosting efficiency, enhancing decision-making, and personalizing services. From algorithmic trading and risk assessment to fraud detection and customer service, AI and machine learning are revolutionizing operations across banking, investment, and insurance.

10. AI Impact on New Goods and Services:

Businesses in India are now able to create brand-new goods and services that were before impossible. As a result, Indian enterprises are finding new markets and business prospects, which is boosting the GDP. For instance, AI is being used in India to build personalized educational programmes, new financial solutions, and new medical diagnostic tools.

11. AI Impact on International Competition:

AI significantly impacts international competition by creating an "AI advantage" where nations and companies that effectively embrace AI gain productivity and innovation, leading to geopolitical and economic shifts. Key impacts include fostering new industries and markets, changing the balance of power, creating new forms of rivalry centered on AI supremacy, and introducing challenges like the "AI divide". This dynamic requires international cooperation and strategic policies from governments and businesses to harness benefits and address risks like job displacement and regulatory fragmentation.

CONCLUSION:

In conclusion, this study highlights the significant influence artificial intelligence (AI) has had on the Indian economy. The main conclusions of this study highlight AI's potential to significantly boost productivity, expand employment possibilities, and drive development in India's GDP. The case studies given show how AI is being efficiently used in a variety of industries, such as telecoms, e-commerce, and IT services, with measurable results including streamlined processes, higher consumer engagement, and increased network efficiency. The incorporation of AI has significant ramifications. AI can increase India's economic competitiveness and resilience globally. However, closing the skill gap and guaranteeing ethical AI use are important issues that demand attention. In order to maximize the potential benefits of this game-changing technology while reducing related dangers, ethical AI deployment in conjunction with talent development will play a crucial role.

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