

1. Artificial Intelligence and its Challenges

Context:

- According to a recent survey 65% of global and 62% of Indian CEOs have implemented AI in some form.

What is Artificial Intelligence?

- **Artificial intelligence refers to the intelligence shown by machines** i.e. computer software, computer controlled robots etc.
- **It is the ability of machines to think logically, learn from observations and optimise intelligently similar to the intelligence of Humans.**
- It is the simulation of human intelligence in machines which includes capabilities such as reasoning, self-correction, performing cognitive tasks, problem solving and decision making ability etc.
- **Artificial intelligence is the part of the Fourth Industrial Revolution** which includes robotics, artificial intelligence, nanotechnology, quantum computing, internet of things, autonomous vehicles etc.

Fundamental challenges organisations face with AI:

- Businesses are grappling with the lack of understanding and explainability of AI decisions.
- For example 58% of survey respondents admit they lack understanding of how AI applications made decisions and only 10% CEOs are confident about the reliability.
- This lack of understanding has resulted in many instances where AI systems did not behave the way they were expected to.
- Certain sectors like financial services are more impacted by this ambiguity than others.
- Financial institutions have been the earlier adopters of AI. Using AI and a multitude of customer data points, banks now determine willingness-to-pay scores, to approve loans.
- While this brings huge benefits and **increases business efficiency**, such initiatives are also fraught with risks.
- Each decision taken should correctly identify the risk profile of customers so that they do not adversely harm the business interests.
- Such applications should also be compliant with various jurisdictional data privacy laws, industry regulations and legal frameworks of the geographies they operate in.
- Another industry that AI promises to transform is healthcare. In radiology, AI will augment the skills of radiologists, helping them find new causal patterns via image

processing, interpretation, reporting and planning to enable faster and more precise reading of medical images and better diagnosis.

- However, it has inherent risks which need to be properly governed and managed to provide responsible patient care.
- Data is highly sensitive and private, and AI applications should ensure privacy and ethical use. Challenges around AI applications, irrespective of industries and functions, are spread across ethical, economic, societal, security, performance and control related aspects. AI initiatives need to address such risks.

Steps to Address the Challenge:

- The first step to address these challenges is developing a **responsible AI (RAI) Framework** that provides a firm foundation to an organisation's AI effort.
- Strategy formulation helps organisations adhere to internal policies and practices and align with industry standards and regulations.
- A delivery approach is decided to manage outcomes and to ensure consistent program oversight in the planning phase.
- **Ecosystem management** helps create the technology roadmap, source different applications and establish a change management process.
- **Development and deployment of systems occur in an iterative manner to create a comprehensive and accurate model.**
- However, some AI models have a tendency to deteriorate over time, hence these needs to be constantly monitored. The second step is to back **the framework by a technology-enabled toolkit** that provides a set of assets and practice aids curated to accelerate the evaluation of data, AI models and their trade-offs, while considering the associated risks and relevance.
- Such assets can help organisations reduce AI related risks to a sub-threshold level and provide explainability to the decisions taken by their AI applications, thereby reducing the black box problem.

Conclusion:

- The promise of AI is immense; according to recent estimates it will add \$15.7 trillion to the global economy by 2030.
- For this to be realised and for organisations to become fit for future, AI must be supported by strong Performance Pillars.

Source: The Financial Express