# Chapter 1
# Adoption of Artificial Intelligence in Corporate Finance:
## Addressing Bias and Ethical Considerations

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## ABSTRACT

*The integration of Artificial Intelligence (AI) into corporate finance has brought transformative changes in decision making process, managing risks, and improving operational efficiency. Many tasks which were earlier driven by human intervention were automated using machine learning, natural language processing and other AI tools. The widespread integration, though intended to reduce human biases and bring greater fairness to decisions, is not without limitations. AI driven finance poses certain inherent risks resulting from biases in decision making that must be carefully addressed to effectively utilize AI tools and sustain it during complex decision making and risk management situations. The chapter is recommended for corporate finance professionals and researchers in the field to enhance awareness and contribute to the growing risk mitigation strategies in AI driven finance.*

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## INTRODUCTION

There is a common belief that automated systems make decisions more rationally and objectively than humans. Likewise, we also believe in algorithms and algorithmic decisions, as free from any bias. The transformative change created by Artificial Intelligence (AI) impacted each and every aspect of human life, the corporate world is not an exception. Decision making is central to organizations, at present, AI tools are extensively utilized in decision making. Indeed, AI has transformed the way corporate works and utilizes data for operations and decision making. Corporate organizations these days are aggressively building their data scientist team to integrate Artificial Intelligence and Machine Learning (AI/ML) to support business processes and automate processes and activities which were earlier handled by humans. Companies and financial service firms alike utilize AI to aggregate and transform data from various sources and derive better decision relevant information in complex environments to gain economic benefits (Lehner, Ittonen, Silvola, & Strom, 2022). AI has automated businesses processes, and helped businesses in financial forecasting, data analysis, risk management, business process reengineering and thereby enhancing business processes. For instance, Valavan (2023) reported that the integration of AI and data-driven decision-making in banking resulted in unprecedented opportunities for efficiency, risk assessment, and customer service. Several AI tools on financial management were used in the businesses, for instance, Sage Intacct, Textio, RPA Solutions, and OpenAi. Artificial Intelligence is advancing day by day and offer new and innovative solutions to streamline business processes and enhance the quality of decisions.

However, several empirical research findings pointed out AI algorithms are not always as objective as we expect them to be (Ghalachyan, 2021) (Perez, 2022) (Zhang & Zhou, 2019) and are not rational as expected (Lindebaum, Vesa, & Hond, 2020). The debates on whether AI complement humans by providing "data driven intelligent inputs" and relegating them into insignificance, is also fueled by the risks associated with the use and reliance of AI algorithms on decision-making. For instance, Amazon found that their AI hiring system reported discrimination against female candidates particularly when recruitment is made for software development and technical positions, due to patterns in their historical data. Further, there are other risks associated with AI usage, such as ethical challenges, data security, lack of transparency, and unintended consequences. Zhang and Zhou (2019) reported that unintentional bias, insufficient model validation, immature contingency plan and other underestimated threats may expose organizations to operational and reputational risks.