Chapter 17
Ethical Considerations in the Use of AI and Big Data in Corporate Decision-Making

Gaurab Kumar Sharma
https://orcid.org/0000-0001-9343-071X
Swami Vivekanand Subharti University, India

Ekta Tyagi
https://orcid.org/0009-0008-6022-6876
Swami Vivekanand Subharti University, India

Amrita Chaudhary
https://orcid.org/0009-0004-7345-1977
Swami Vivekanand Subharti University, India

ABSTRACT

In an era where artificial intelligence and big data have become integral to corporate management, the ethical challenges associated with their deployment cannot be overlooked. As businesses increasingly rely on AI-driven insights and vast data streams for decision-making, the potential for misuse, bias, and violations of privacy grows. This chapter explores into the ethical considerations that corporations must address to harness AI and big data responsibly. It explores the implications of these technologies on corporate decision-making, highlighting the risks of algorithmic bias, data exploitation, and transparency issues. Through a comprehensive analysis, the chapter proposes a framework for ethical AI and big data utilization, emphasizing the need for corporate governance structures that prioritize ethical

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practices, data integrity, and accountability. The chapter aims to provide business leaders, managers, and policymakers with actionable insights to balance innovation with ethical responsibility.

1. INTRODUCTION

1.1 The Rise of AI and Big Data in Corporate Management

The rise of Artificial Intelligence (AI) and Big Data has revolutionized corporate management, altering the landscape of business decision-making. These technologies have ushered in a new era where data-driven insights and automation guide strategic decisions, enhance operational efficiency, and foster innovation. As a result, organizations are increasingly relying on AI and Big Data to navigate complex markets, streamline their operations, and offer personalized services to their customers. This transformation is not just a technological shift but a fundamental change in how businesses operate, make decisions, and interact with customers and stakeholders.

AI refers to the simulation of human intelligence processes by machines, particularly systems that learn, reason, and self-correct (Russell & Norvig, 2016). It encompasses a broad range of technologies, including machine learning, natural language processing, and robotics, which enable machines to analyze vast amounts of data, identify patterns, and make predictions with minimal human intervention. Big Data, on the other hand, refers to the enormous volume, variety, and velocity of data generated daily by businesses, social media platforms, sensors, and other digital tools (Mayer-Schönberger & Cukier, 2013). The combination of AI and Big Data offers a potent toolset for companies to gain deeper insights into customer behavior, market trends, and operational efficiencies, leading to more informed and faster decision-making.

In modern corporate management, these technologies are no longer just buzzwords but integral elements of business strategy. AI and Big Data are transforming how companies compete, innovate, and create value. For example, AI-driven tools like predictive analytics help businesses anticipate customer demands, optimize supply chains, and tailor products to individual preferences (Davenport & Ronanki, 2018). Big Data analytics enables organizations to analyze historical data to forecast future trends, uncover hidden patterns, and improve decision-making processes (Chen, Chiang, & Storey, 2012). Together, AI and Big Data provide businesses with a comprehensive view of their environment, enabling them to adapt quickly and stay competitive in a fast-evolving market.

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