

## Impact of Artificial Intelligence on Managerial Decision-Making and Financial Reporting

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### ABSTRACT

*Artificial Intelligence (AI) acts as a revolutionary force which transforms modern organizations because it changes both how managers make decisions and how companies conduct their financial reporting work. Businesses now adopt AI systems to their operational and financial systems because machine learning and data analytics and natural language processing and automation technologies now provide better machine learning systems. AI-powered systems help organizations handle large data sets that they can use to detect patterns and predict future developments and produce accurate financial data. The technological progress has transformed conventional methods of making choices which now depend on data analysis instead of gut feelings. This study examines the impact of Artificial Intelligence on managerial decision-making and financial reporting within organizations. The study investigates how artificial intelligence technology improves forecasting accuracy and risk assessment and budgeting efficiency and internal control systems. The research employs a descriptive and analytical method which collects primary data through structured questionnaires that managers and financial professionals complete. The study uses percentage-based analysis to assess how much organizations adopt AI technology which affects both decision-making abilities and the accuracy of their financial statements. The research results show that organizations which adopt AI systems gain better financial reporting efficiency while experiencing fewer human mistakes and faster data processing speeds and better visibility into their operations. Managers use AI tools for predictive analytics because they provide decision support based on current data. The automated reporting systems improve the efficiency of compliance and regulatory requirements. The study shows that organizations face two main challenges which include high implementation costs and data privacy issues and insufficient organizational knowledge.*

**Keywords:** *Artificial Intelligence (AI), Managerial Decision-Making, Financial Reporting, Predictive Analytics, Automation, Data-Driven Strategy, Risk Assessment, Accounting Information Systems, Organizational Performance, Digital Transformation.*

### Introduction

Artificial Intelligence (AI) has established itself as a major technological advancement that currently influences all aspects of contemporary business operations. The development of machine learning algorithms and big data analytics together with automation technologies and enhanced computing power enables organizations to shift their complete operational and financial frameworks. Businesses in today's competitive and data-driven economy need to handle vast quantities of data because they must process information at high speeds while maintaining accuracy to stay ahead of their competitors. Organizations can use AI technologies to investigate intricate datasets which allows them to discover concealed trends while predicting future developments and making decisions based on verified information.

Organizations have always used human judgment together with historical data assessment and managerial expertise to make decisions. Global market developments and changing consumer behavior

and new regulations require organizations to make decisions faster and more precisely than before. AI systems help managers by providing predictive analytics capabilities and real-time data analysis and automated decision-making solutions. The systems decrease uncertainty while they make strategic planning procedures more efficient.

The implementation of AI technologies has brought about major changes to financial reporting systems. The traditional approach to financial reporting requires organizations to perform manual data entry and reconciliation processes together with their standard reporting cycles. AI-enabled systems automate data collection, error detection, fraud identification, and compliance monitoring. This process enhances the financial reporting process by delivering more precise, trustworthy, and timely financial statement information.

AI implementation offers numerous benefits to organizations but it also brings multiple problems which include expensive implementation costs and cybersecurity vulnerabilities and data privacy issues and the requirement for specialized workers. The research focuses on understanding the consequences which AI technologies create in their application for business operations.

### **Background of the Study**

Over the last two decades, businesses have developed advanced methods for integrating technology into their operational processes. Artificial Intelligence has become a fundamental organizational resource because digital transformation and cloud computing and advanced analytics have made it possible to use AI technologies. AI systems now support various business functions, including marketing, human resources, supply chain management, and finance.

Every day, organizations within the financial domain produce enormous quantities of operational and transactional data. The process of handling and understanding this data through manual methods requires extensive time and results in frequent mistakes. AI technologies offer automatic methods to handle data, conduct financial assessments, create forecasts, and manage risks. Organizations increasingly use AI to improve their decision-making processes and financial reporting procedures.

Intelligent systems have become essential for organizations to manage the increasing demands of their financial compliance and regulatory obligations. AI-driven tools can monitor transactions, detect anomalies, and ensure regulatory compliance in real time. The competitive nature of markets requires organizations to use AI-based predictive models, which provide accurate forecasting and strategic flexibility for their operations.

Financial constraints and technological infrastructure limitations and skill gaps prevent many organizations from successfully implementing AI solutions. Researchers need to study how AI affects managerial work and financial operations to establish its real-life outcomes and effectiveness.

### **Concept of Artificial Intelligence (AI)**

Artificial Intelligence (AI) enables machines to replicate human intelligence functions through their ability to process information. The technology incorporates machine learning and natural language processing and neural networks and robotics and predictive analytics. AI systems have been developed to execute functions which normally need human cognitive abilities including data learning and pattern recognition and problem resolution and decision making.

AI functions through three steps which include data analysis for large datasets and relationship discovery within the data and output generation of insights and predictions. Machine learning algorithms develop better performance through their ability to acquire knowledge from newly introduced data. AI technology helps businesses by increasing their operational efficiency through automation of repetitive work tasks and providing support for making decisions based on data analysis.

AI applications extend from virtual assistants and chatbots to financial analytics systems which perform advanced fraud detection functions. Organizations achieve better accuracy through AI implementation in their business operations which also helps them decrease expenses and boost their capacity for strategic planning.

### **AI in Managerial Decision-Making**

AI improves decision-making processes for managers because it delivers real-time data analysis and predictive insights while creating automated recommendations. Managers can use AI-driven dashboards and analytics tools to forecast demand, assess risks, optimize resource allocation, and evaluate performance. AI helps organizations make data-driven decisions because it provides proof-based knowledge that comes from analyzing extensive data sets. It also helps organizations plan their

future activities and conduct scenario analysis by discovering existing patterns and predicting possible future developments. AI assists managers in making rapid and precise decisions which improve their ability to handle changing business conditions.

### **AI in Financial Reporting**

AI creates a transformation in financial reporting through its ability to automate data entry and reconciliation work and compliance tasks. The intelligent systems discover faults, track down fraudulent activities, and confirm that organizations follow established regulations. AI technology enables organizations to create financial reports in real time while enhancing the accuracy and clarity of their financial documents. The predictive analytics tools help organizations to forecast their financial results and handle their operational risks. The systems that generate reports automatically decrease the need for manual work while they strengthen internal control procedures. The implementation of AI technology makes financial reporting more reliable and efficient for organizations while it delivers strategic advantages to the reporting process.

### **Objectives of the Study**

- To look into how many businesses are using AI.
- To look into how AI affects how managers make decisions.
- To assess the impact of AI on the precision and efficiency of financial reporting.
- To find problems with putting AI systems into use.
- To come up with ways to use AI effectively in financial management.

### **Scope and Limitations of the Study**

#### **Scope**

- The study investigates how AI technology affects both managerial duties and financial operations.
- The research examines two aspects which include decision-making efficiency and financial reporting systems.
- The research investigates organizations which implement AI technologies.
- The results of the research provide beneficial information for managers, accountants, and policymakers.

#### **Limitations**

- The study restricts its analysis to particular industries and geographic areas.
- The study collects data from respondents who provide their personal views which may lead to biased outcomes.
- The ongoing advancement of technology will produce changes in research results throughout different time periods.
- Research studies face resource constraints which prevent them from achieving their desired sample size.

### **Review of Literature**

**Gangwar, Roopal; Dash, Bidya; Nanda, Amitabh; Ayyub, Sheenam (2024)** performed an empirical study to investigate how AI-enabled Management Information Systems (MIS) influence managerial decision-making processes. The study demonstrates that AI-based MIS systems increase decision-making accuracy through their ability to handle extensive data sets and their improved forecasting capabilities and their capacity to handle standard operational activities. The research demonstrates that organizations in India utilize three primary elements of AI which include predictive capabilities and data analysis and risk management to enhance their decision-making processes.

The research team led by **Deshmukh, Prajakta B.; Nikam, Dr. Poonam; Moholkar, Nilambari (2024)** conducted a study about how artificial intelligence technology affects financial management practices. The study shows that finance managers view AI technology in a favorable way because they believe it helps with making strategic decisions and protecting against potential risks. The research found that organizations improve their financial management practices through AI implementation which leads to better forecasting results and achievement of organizational goals but requires organizations to focus on developing employee skills.

The research team led by **Singh, Himalaya; Vardia, Shilpa (2024)** conducted a study about how artificial intelligence technology affects accounting work in small businesses located in Rajasthan. The research shows that AI technology has completely changed accounting work processes by minimizing the need for manual data entry while it has also improved the precision of financial recordkeeping. The research shows that AI becomes more important in determining how accounting work gets done and how professionals perform their responsibilities in businesses throughout India.

The study conducted by **Kakde and Lad in 2024** studied how Artificial Intelligence and Machine Learning technologies are used in financial services throughout India. Their research demonstrates how AI and ML technologies transform financial services which include risk assessment and fraud detection and data analytics. These advancements lead to better operational understanding which guides managers in making financial decisions.

The study conducted by **Preeti Singh in 2025** examined how Artificial Intelligence affects organizational decision-making processes. The research demonstrates that AI helps managers make better decisions because it minimizes cognitive biases and accelerates data analysis and improves their ability to develop strategic plans throughout Indian industries.

### Research Methodology

#### Research Design

The researchers used descriptive research design to investigate how AI implementation impacts both managerial decision-making and financial reporting processes. The research study relies on managers and finance professionals who assess AI implementation within their companies through perception-based evaluation methods.

#### Sample Size

The study consists of a sample of 100 respondents who include

- 50 managerial-level employees
- 30 finance and accounting professionals
- 20 senior executives
- The researchers used convenience sampling to select respondents from medium and large organizations that have adopted AI-based systems.

#### Data Collection Method

The researchers collected primary data through a structured questionnaire which included close-ended questions that contained Yes/No and Likert-scale type options. The questionnaire focused on

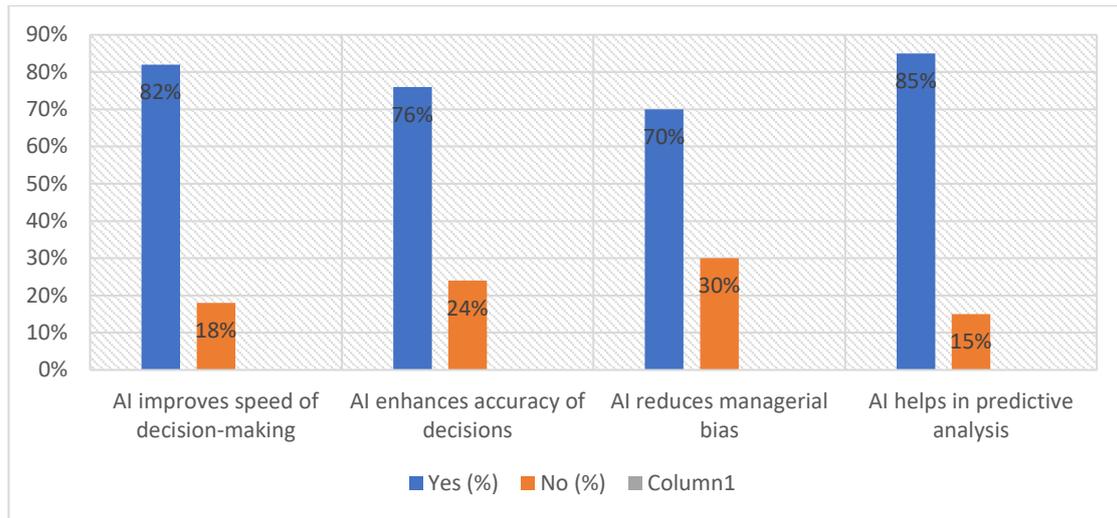
- AI usage in decision-making
- AI tools in financial reporting
- Impact on accuracy and efficiency
- Risk reduction and forecasting

The researchers collected secondary data from journals and research papers and reports and online databases which contained information about AI and finance.

#### Data Analysis

**Table 1: Impact of AI on Managerial Decision-Making**

Particulars	Yes (%)	No (%)
AI improves speed of decision-making	82%	18%
AI enhances accuracy of decisions	76%	24%
AI reduces managerial bias	70%	30%
AI helps in predictive analysis	85%	15%

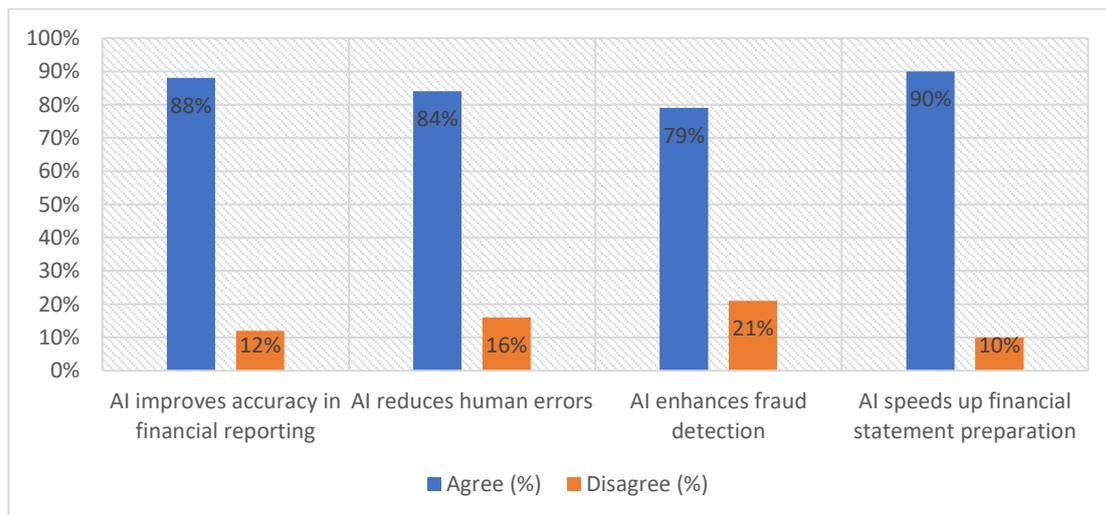


**Interpretation**

The table presents data showing that 82% of respondents think AI helps managers make decisions faster while 85% of respondents believe AI provides essential assistance for predictive analysis. Around 76% of people believe that AI helps them make better decisions while 70% of people think that AI helps them make decisions without biases. The results indicate that people hold a highly positive view about how AI improves their ability to manage work tasks.

**Table 2: Impact of AI on Financial Reporting**

Particulars	Agree (%)	Disagree (%)
AI improves accuracy in financial reporting	88%	12%
AI reduces human errors	84%	16%
AI enhances fraud detection	79%	21%
AI speeds up financial statement preparation	90%	10%



The research shows that 90% of the participants think that AI technology helps them complete financial statements more quickly. 88% of the participants believe AI technology helps improve reporting accuracy while 84% think it decreases human mistakes. The study shows that 79% of people recognize the ability of AI to detect fraud. This demonstrates that financial reporting departments have accepted AI technology at a high level.

## Conclusion

The study concludes that Artificial Intelligence has a significant positive impact on managerial decision-making and financial reporting practices. The findings demonstrate that AI improves managerial decision-making through faster and more precise and dependable results. AI enables predictive analytics and real-time data processing which helps managers to make strategic decisions based on accurate information. The combination of reduced cognitive bias and automated routine work processes results in better decision-making outcomes.

AI has enhanced financial reporting through improved transparency which decreases manual mistakes and speeds up the creation of financial statements. Organizations that implement AI-based accounting systems achieve improved compliance results along with better fraud detection and more accurate forecasting abilities. The percentage analysis shows that a majority of respondents strongly support AI integration in finance and management processes.

Successful AI implementation requires organizations to have both skilled personnel and technological systems and effective data handling processes. The use of AI improves operational efficiency but organizations still need to depend on human experts for ethical decisions and executive tasks.

AI functions as a transformative technology which boosts organizational efficiency and enhances financial management while enabling organizations to make decisions based on data analysis. The increasing adoption of AI technology demonstrates its sustained importance for both managerial and financial functions.

## Discussion

The research results match current studies which show that AI systems help organizations work better while they decrease business risks. The high percentage agreement among respondents demonstrates that AI is not merely a technological trend but a strategic necessity.

AI helps managers make better decisions through its ability to deliver predictive insights and real-time analytics. The system allows managers to swiftly process extensive datasets which helps them react faster to changes in business conditions. The automation process in financial reporting delivers accurate and timely financial statements which boosts stakeholder trust.

The study shows organizations need to solve three main problems which include data security issues and ethical dilemmas and employee development needs. Organizations will struggle to implement AI technologies because their staff members resist change and their team members lack necessary knowledge. Organizations require ongoing skill development together with system maintenance for essential digital tools.

## Suggestion

- Companies should spend money on AI training programs for their finance and management staff.
- Proper data governance policies must be implemented to ensure security and compliance.
- AI systems should be integrated gradually to reduce resistance among employees.
- To keep AI technologies working well, they should be checked and tested on a regular basis.
- For ethical and strategic balance, AI-based choices should always be backed up by human supervision. Ideas.
- Companies should spend money on AI training programs for their finance and management staff.

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