

A Study on Awareness of Artificial Intelligence Applications in Finance among Management Students

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Abstract

Artificial Intelligence (AI) has been revolutionizing the financial sector by enabling automation, predictive analytics, fraud detection, risk management, algorithmic trading, credit scoring, and intelligent customer services. As AI-driven technologies become integral to financial decision-making, management students specializing in finance must develop adequate awareness and understanding of these emerging applications. This study examines the level of AI awareness among management students and explores their perceptions regarding AI's future role in financial services. Using a descriptive research design, primary data were collected from 150 finance-specialized management students through a structured questionnaire, supported by relevant secondary data from academic and industry sources. The findings indicate that students possess greater awareness of common AI applications such as fraud detection and digital payments, whereas knowledge of advanced applications, including robo-advisory and algorithmic trading, remains limited. The respondents demonstrate a positive perception of AI's ability to improve efficiency, accuracy, and strategic decision-making, although concerns regarding job displacement, ethical challenges, and limited practical exposure persist. The study recommends integrating AI-focused curricula, practical training, and industry collaboration to enhance AI readiness among future finance professionals.

Keywords: *Artificial Intelligence, Finance, Management Students, Awareness, Financial Technology*

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1. Introduction

Artificial Intelligence (AI) has become a transformative force in the financial sector, driving digital transformation through automation, predictive analytics, machine learning, and intelligent decision-making. Financial institutions increasingly employ AI to strengthen fraud detection, credit scoring, risk assessment, algorithmic trading, customer relationship management, and operational efficiency. These technological advancements have significantly altered the nature of financial services, requiring professionals to combine financial expertise with digital competencies. The management students specializing in finance must develop a strong understanding of AI applications to effectively adapt to technology-driven financial environments and contribute to data-driven strategic decision-making in the future financial ecosystem (Russell & Norvig, 2021). India's financial ecosystem has witnessed rapid digitalization, supported by FinTech innovation, digital payment infrastructure, regulatory reforms, and widespread adoption of AI-enabled financial services. Banks, non-banking financial companies (NBFCs), insurance firms, and FinTech organizations increasingly utilize AI to improve customer experience, automate financial processes, enhance cybersecurity, and support regulatory compliance. Despite

these developments, exposure to AI concepts and practical financial applications varies considerably across management institutions, resulting in differences in students' technological preparedness. Understanding the level of AI awareness among management students is therefore essential to bridge the gap between academic learning and evolving industry expectations (OECD, 2024). The present study examines the awareness of Artificial Intelligence applications in finance among management students by evaluating their understanding of AI concepts, practical financial applications, perceived benefits, challenges, and future career implications. Although AI adoption is expanding rapidly across the financial industry, empirical evidence regarding students' preparedness remains limited. The findings are expected to assist academic institutions, curriculum developers, policymakers, and industry stakeholders in strengthening AI-integrated management education through curriculum enhancement, practical training, and industry collaboration. Such initiatives will help develop future-ready finance professionals capable of successfully operating within AI-driven financial systems.

2. Background of Study

Artificial Intelligence (AI) has become a strategic driver of innovation and digital transformation within the global financial services industry. Financial institutions are increasingly integrating AI technologies, including machine learning, deep learning, natural language processing, and predictive analytics, to improve fraud detection, credit evaluation, portfolio management, algorithmic trading, customer relationship management, and regulatory compliance. These technologies enable organizations to process vast volumes of structured and unstructured financial data with greater speed, accuracy, and consistency, thereby improving operational efficiency and strategic decision-making. As financial institutions continue to invest in AI-powered solutions, the demand for professionals possessing both financial expertise and AI literacy has grown substantially. The management education must evolve to equip students with the knowledge and competencies required to function effectively in an increasingly intelligent financial ecosystem (International Monetary Fund, 2025).

India's financial sector has experienced rapid technological advancement through the expansion of digital banking, Unified Payments Interface (UPI), FinTech innovation, and AI-enabled financial services supported by progressive regulatory initiatives. Banks, insurance companies, non-banking financial companies (NBFCs), and FinTech enterprises are increasingly utilizing AI to enhance customer experience, strengthen cybersecurity, automate financial operations, and improve risk management. Despite these developments, the extent of awareness and practical understanding of AI applications among management students remains inconsistent due to differences in curriculum design, institutional infrastructure, and industry exposure. This gap between academic preparation and industry expectations highlights the need to assess students' awareness of AI applications in finance. Such an assessment will provide valuable insights for educational institutions, curriculum developers, and policymakers to integrate AI-oriented learning, experiential training, and industry collaboration into management education, thereby preparing graduates for the future digital financial workforce (United Nations Conference on Trade and Development, 2025).

3. Scope and Significance of Study

The present study focuses on assessing the awareness of Artificial Intelligence (AI) applications in finance among management students, with particular emphasis on their understanding of AI-enabled financial technologies such as fraud detection, algorithmic trading, credit scoring, robo-advisory services, risk management, and intelligent customer relationship management. The study examines students' familiarity with AI concepts, perceived benefits, challenges, and readiness to adopt AI-driven financial practices in their future careers. Its significance lies in identifying existing knowledge gaps between academic preparation and industry expectations in the rapidly evolving financial sector. The findings will provide valuable insights for higher educational institutions, curriculum developers, policymakers, and financial organizations to strengthen AI-integrated management education, promote industry-academia collaboration, and design practical learning interventions that enhance students' technological competencies and employability. The

study contributes to developing future-ready management graduates capable of supporting digital transformation and innovation within the finance industry (UNESCO, 2025).

4. Objective of Study

- To understand the level of awareness of Artificial Intelligence applications in finance among management students
- To identify the key areas of finance where Artificial Intelligence is applied, as known to management students
- To analyze the perception and attitude of management students towards the role of Artificial Intelligence in the financial sector
- To identify the challenges and concerns faced by management students regarding the adoption of Artificial Intelligence in finance

5. Literature Review

Recent literature indicates that Artificial Intelligence (AI) has become a transformative technology within the financial sector, significantly enhancing the efficiency and quality of financial decision-making through automation, predictive analytics, and intelligent data processing. AI applications such as fraud detection, credit scoring, risk assessment, algorithmic trading, robo-advisory services, and personalized financial management have enabled financial institutions to optimize operational performance while improving customer experience and regulatory compliance. Researchers have also highlighted that AI-driven financial systems support real-time analysis of large datasets, allowing organizations to make faster and more accurate strategic decisions. However, successful implementation of these technologies depends largely on the availability of digitally skilled professionals capable of understanding and applying AI tools in financial contexts. The management education is increasingly expected to integrate AI-related competencies into finance curricula to prepare graduates for technology-intensive financial environments (Brynjolfsson, Li, & Raymond, 2025).

Several recent studies have emphasized that although management students generally demonstrate positive attitudes toward Artificial Intelligence, their awareness of advanced AI applications in finance remains uneven. Students are relatively familiar with AI-enabled digital payments, chatbots, and fraud detection systems but possess limited knowledge of sophisticated applications such as algorithmic trading, intelligent portfolio optimization, explainable AI, and AI-supported investment analytics. Researchers have further reported that inadequate practical exposure, limited industry interaction, and insufficient AI-focused curriculum components restrict students' readiness for AI-driven financial careers. These findings underscore the importance of strengthening experiential learning, interdisciplinary education, industry-academia collaboration, and AI skill development within management programmes. Accordingly, empirical assessment of management students' awareness of AI applications in finance is essential for bridging the gap between academic preparation and the evolving competency requirements of the digital financial services industry (OECD, 2025).

6. Research Methodology

6.1 Research Design:

The present study follows a descriptive research design, as it seeks to systematically describe and analyze the level of awareness and perception of Artificial Intelligence (AI) applications in finance among management students. Descriptive research is suitable for this study because it helps in understanding existing conditions, attitudes, and knowledge levels without manipulating any variables. The design enables the researcher to collect quantitative data and draw meaningful conclusions regarding students' awareness of AI in the financial sector.

6.2 Sources of Data

- **Primary Data** were collected through a structured questionnaire administered to management students specializing in finance. The primary data provided first-hand information on students' awareness, perceptions, and concerns regarding AI applications in finance.
- **Secondary Data** were collected from academic journals, research papers, books, industry reports, and credible online sources related to Artificial Intelligence, financial technology, and management education. These sources helped in building the theoretical framework and supporting the findings of the study.

6.3 Sample Size and Sampling Technique

The study was conducted on a sample of 150 management students pursuing finance-related specializations. A convenience sampling technique was adopted due to time constraints and ease of accessibility of respondents. This method was considered appropriate for obtaining quick responses and gaining insights into the awareness level of students currently enrolled in management programs.

6.4 Data Collection Tool

A structured questionnaire was used as the primary data collection instrument. The questionnaire consisted of multiple-choice and Likert-scale questions designed to capture respondents' views in a clear and systematic manner. The questions covered areas such as basic understanding of Artificial Intelligence, awareness of AI applications in finance, sources of AI-related knowledge, and perceived benefits and challenges associated with AI adoption in the financial sector. The questionnaire was kept simple to ensure better response accuracy.

6.5 Tools for Data Analysis

The collected data were analyzed using simple statistical tools such as percentage analysis, tables, and graphical representations. These tools were used to summarize the data and interpret the awareness levels and perceptions of management students in an easy and understandable manner. The analysis helped in identifying key trends and drawing meaningful conclusions relevant to the objectives of the study.

7.Data Analysis and Interpretation

1. Awareness of AI Concept

Response	No. of Students	Percentage
Yes	135	90%
No	15	10%
Total	150	100%

Interpretation: The table shows that 90% of the respondents (135 out of 150 students) are aware of the concept of Artificial Intelligence, while only 10% (15 students) are not aware of it. This indicates a high level of general awareness of AI among management students. The result suggests that AI as a concept is widely recognized, likely due to increasing digital exposure and academic discussions.

2. Awareness Level

Awareness Level	Students	Percentage
Very High	18	12%
High	45	30%
Moderate	57	38%
Low	21	14%
Very Low	9	6%
Total	150	100%

Interpretation: The table shows that the majority of students (38%) have a moderate level of awareness of AI applications in finance. About 42% (High + Very High) possess strong awareness, while 20% (Low + Very Low) have limited knowledge. This indicates that although overall awareness is satisfactory, there is still a need to improve deeper understanding of AI in finance among some students.

3. Awareness of AI Applications

AI Application	Students Aware	Percentage
Fraud Detection	120	80%
Digital Payments	132	88%
Credit Scoring	105	70%
Chatbots	98	65%
Algorithmic Trading	60	40%
Robo-Advisory	52	35%

Interpretation: The data indicates that students have higher awareness of commonly used AI applications such as Digital Payments (88%) and Fraud Detection (80%), followed by Credit Scoring (70%) and Chatbots (65%). However, awareness of advanced applications like Algorithmic Trading (40%) and Robo-Advisory Services (35%) is comparatively low. This suggests that while management students are familiar with basic and widely implemented AI technologies in finance, their understanding of more specialized and complex AI applications remains limited, highlighting the need for enhanced academic and practical exposure.

4. Awareness of AI Applications

Source	Students	Percentage
Online Articles & Blogs	110	73%
Classroom Lectures	92	61%
Social Media	85	57%
Workshops / Seminars	48	32%
Industry Exposure	40	27%

Interpretation: The table shows that the primary source of knowledge about AI in finance among students is Online Articles and Blogs (73%), followed by Classroom Lectures (61%) and Social Media (57%), indicating that students largely depend on digital platforms and academic learning for information. However, comparatively fewer students gain knowledge through Workshops/Seminars (32%) and Industry Exposure (27%), suggesting limited practical and experiential learning opportunities. This highlights a gap between theoretical understanding and

real-world exposure, emphasizing the need for greater industry interaction and hands-on training in management education.

5. AI Improves Efficiency

Response	Students	Percentage
Strongly Agree	58	39%
Agree	65	43%
Neutral	17	11%
Disagree	7	5%
Strongly Disagree	3	2%
Total	150	100%

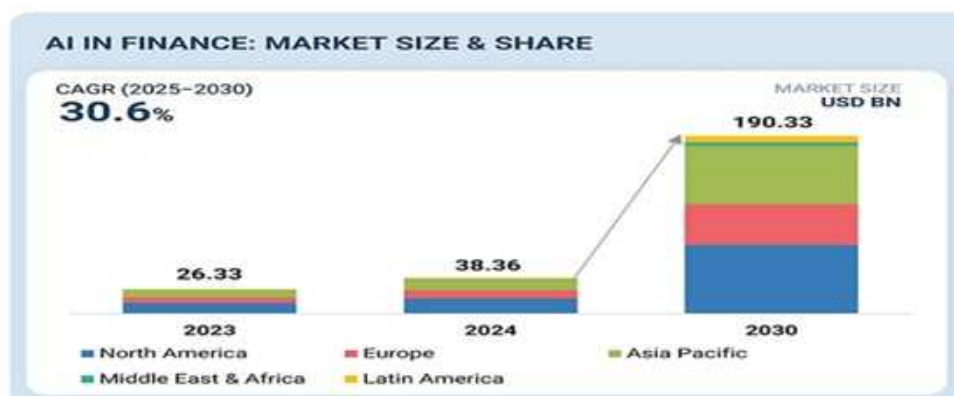
Interpretation: The table indicates that a strong majority of respondents have a positive perception of AI's impact on efficiency in financial services. About 82% of students (39% strongly agree and 43% agree) believe that AI improves efficiency, demonstrating a favourable attitude toward its adoption. Only 7% disagree and 2% strongly disagree, while 11% remain neutral. This suggests that most management students recognize the potential of AI to enhance accuracy, speed, and productivity in finance, reflecting a generally optimistic outlook toward technological advancement in the sector.

6. Concerns Related to AI

Concern	Students	Percentage
Job Displacement	90	60%
Ethical Issues	72	48%
Data Privacy	80	53%
Lack of Practical Knowledge	95	63%
High Cost	45	30%

Interpretation: The table shows that the major concern among students is lack of practical knowledge (63%), followed closely by job displacement (60%) and data privacy issues (53%). Additionally, 48% of respondents expressed concern about ethical issues, while 30% identified high cost of implementation as a challenge. This indicates that although students have a positive perception of AI, they are also aware of the practical, ethical, and employment-related challenges associated with its adoption in finance.

Figure 1: AI Growth Potential in Future



The report by the Markets and Markets published in February, 2025 clearly indicate that there is 30.6% cumulative average growth rate estimated from 2024 to 2030. It is likely to become \$US 190.33 billion by the year 2030. The Asia Pacific region is highly influential due to developing economies.

8. Findings of Study

- The study indicates that management students possess a moderate level of awareness regarding the concept and role of Artificial Intelligence in the financial sector.
- A majority of respondents are familiar with commonly used AI applications in finance such as fraud detection, digital payments, credit scoring, and AI-enabled customer service systems.
- There is a lack of thorough technical knowledge when it comes to advanced AI applications like algorithmic trading, robo-advisory services, and predictive analytics. Most respondents perceive Artificial Intelligence as a beneficial technological advancement that enhances efficiency, accuracy, speed, and quality of decision-making in financial operations.
- The findings reveal a generally positive attitude among management students toward the adoption of Artificial Intelligence in the financial sector. Despite positive perceptions, a significant number of students expressed concerns related to job displacement due to automation and the replacement of traditional finance roles.

9. Conclusion

The current study comes to the conclusion that since AI is now a crucial part of the contemporary financial ecosystem, management students who will eventually work in finance need to be sufficiently equipped to function in AI-driven settings. The results show that although management students have a rudimentary understanding of artificial intelligence and its function in finance, their knowledge is still mostly limited to applications that are readily apparent. There are large gaps in students' knowledge of advanced AI applications, despite the fact that they have a positive attitude toward the adoption of AI and acknowledge its potential benefits in enhancing efficiency, accuracy, and strategic decision-making. The necessity for a fair and knowledgeable approach to AI education is further highlighted by worries about job stability, moral dilemmas, and a lack of practical experience. The study emphasises how urgently management education courses must incorporate AI-focused modules, hands-on training, industrial partnerships, and experiential learning. Educational institutions can provide students with the skills and self-assurance they need to adjust to technological changes in the financial sector by bridging the gap between academic knowledge and industrial requirements.

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