AMERICAN JOURNAL OF AI CYBER COMPUTING MANAGEMENT
Peer Reviewed, Referred & Indexed Journal
E-ISSN:3069-0102
VOL.6, NO. 3(2026)

"ROLE OF ARTIFICIAL INTELLIGENCE IN FINANCIAL SERVICES OF SELECTED BANKS"

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ABSTRACT
This study examines the role of Artificial Intelligence (AI) in the financial services industry, with particular reference to its application in banking, investment, insurance, and customer service in India. The study is descriptive in nature and is based on primary data collected from 100 respondents with knowledge of AI and financial services, using a structured questionnaire, supported by secondary data drawn from published reports, journals, and official industry sources. The study examines respondents' awareness and perception of AI across key application areas — fraud detection, credit scoring and risk assessment, robo-advisory and investment decisions, financial inclusion, customer service, and regulatory adequacy — together with concerns relating to data privacy and the transparency of AI-based decision-making, using percentage analysis and tabulation to summarise the collected data. The results show that a large majority of respondents view AI as effective in detecting financial fraud, reducing operational costs, and improving customer service and personalisation, while a substantial proportion also express concern about data privacy and the transparency of AI-based decisions, and remain uncertain about the adequacy of existing regulatory frameworks. The study concludes that AI has become a significant driver of efficiency, financial inclusion, and customer experience in financial services, and that its continued adoption should be accompanied by stronger data protection, greater transparency, and clearer regulatory guidance to sustain customer trust.

Keywords: Artificial Intelligence, Financial Services, Financial Inclusion, Fraud Detection, Robo-Advisory, Digital Banking.

I. INTRODUCTION

Artificial Intelligence (AI) refers to the capability of computer systems to simulate aspects of human intelligence, such as problem-solving, decision-making, language understanding, and pattern recognition, and to improve their performance over time with limited human intervention. AI is transforming the financial services industry by enabling institutions to make better decisions, enhance customer experience, and reduce operational costs.

One of the most significant applications of AI in financial services is fraud detection, where AI systems continuously monitor transactions, identify unusual patterns, and flag suspicious activity in real time. AI is also widely used in credit scoring, where it evaluates a broader range of customer data to assess creditworthiness more accurately than traditional methods. AI-powered chatbots and virtual assistants have considerably improved customer service by providing round-the-clock support, addressing customer queries, assisting with account management, and offering personalised financial guidance. In investment management, AI-powered algorithms analyse historical and real-time data to support investment decisions and automate trading strategies.

Risk management is another area where AI plays an important role, helping financial institutions anticipate market movements, identify potential risks, and comply with regulatory requirements. AI also improves operational efficiency in areas such as document processing, loan approvals, and compliance monitoring, allowing institutions to serve customers faster and at lower cost.

Industry Profile

The global AI industry has grown rapidly and is projected to expand from around USD 390.9 billion in 2025 to USD 539.5 billion in 2026, and further to an estimated USD 3,497.3 billion by 2033, reflecting a compound annual growth rate of about 30.6 percent. North America remained the largest regional market in 2025, accounting for around 35.5 percent of global revenue. This growth is driven by the rapid adoption of

Received: 22-06-2026 | Accepted: 26-07-2026 | Published: 01-08-2026 | www.ajaccm.com

generative and agentic AI by businesses, large-scale investment, and the transition of AI from an experimental technology to a critical component of everyday business operations. Within the technology landscape, deep learning has emerged as the leading category by revenue share, supporting applications ranging from autonomous systems to large multi-modal AI models, while the operations function — covering areas such as order processing, supply chain management, and daily business workflows — accounted for the largest share of AI use by business function in 2025.

Financial services, in their broadest sense, cover the commercial banks, investment banks, insurers, and asset managers that provide market liquidity, risk-management instruments, credit, and brokerage services to individuals, businesses, and governments. The industry encompasses accounting, investment banking, investment management, and personal financial management, and offers products such as credit cards, insurance, mortgage loans, and pension funds. In India, the financial services industry has grown considerably in recent years: the total assets under management (AUM) of the mutual fund industry reached a record Rs. 82,02,956 crore (about USD 932.6 billion) as of February 2025, supported by strong systematic investment plan (SIP) contributions and equity fund inflows, while life insurers recorded a 5.12 percent increase in first-year premiums between FY24 and FY25. A 2025 wealth analysis also projected that India's ultra-high-net-worth individual (UHNWI) population would grow by 58.4 percent by 2028, reflecting rising investor participation and confidence across the sector.

Going forward, the Indian financial services industry is expected to benefit from continued regulatory strengthening by the Reserve Bank of India (RBI), expansion of credit facilities and social welfare schemes to underserved sections of society, and wider adoption of technology by consumers, positioning the sector to promote social equity and sustainable, inclusive economic growth.

Table 1: Selected Financial Services Companies and Their Profile

Company	Established	Profile
HDFC Bank	1994	Serves over 92 million customers through an extensive branch network across India and is widely recognised as a leading private sector bank in terms of value.
State Bank of India (SBI)	1806	India’s largest commercial bank by market share (around 25 percent), with a history of over 200 years and headquartered in Mumbai.
ICICI Bank	1955	India’s second-largest private bank, offering retail, corporate, and NRI banking services through a vast branch and ATM network across India and 19 countries.
Bajaj Finance / Bajaj Finserv	Pune-based	India’s largest NBFC for deposits, providing consumer and business loans, wealth management, and savings products to over 100 million customers.
LIC	1956	India’s largest life insurer, offering a wide range of life insurance, pension, and investment products across the

		country.
Jio Financial Services	2023	A subsidiary of Reliance Industries offering digital financial products, including loans and asset management, mainly through the Jio Finance App.
Tata Capital	2007	An RBI-registered NBFC under the Tata Group offering retail, housing, and corporate financial solutions through more than 1,400 branches across India.
Power Finance Corporation (PFC)	1986	A leading government-owned NBFC financing power generation, transmission, distribution, and renewable energy projects across India.
Muthoot Finance	Kochi-based	India's largest gold-loan NBFC, offering secure gold-backed lending products to customers nationwide.

Artificial Intelligence in Financial Services

The Indian economy is highly dependent on a strong and stable banking system for growth across sectors, and financial institutions have increasingly invested in AI to detect unusual behaviour, reduce the cost of operations, and improve efficiency. AI is improving both front-end and back-end operations at banks, from easy-to-use websites and mobile applications to AI-based chatbots and recommendation systems that respond to customer needs and help identify fraudulent behaviour. Banks also use AI-powered tools to analyse large volumes of data for tasks such as credit appraisal and risk management, helping reduce credit, market, and operational risk and supporting a more secure and efficient banking environment.

With growing recognition of AI's potential to support India's economic development, the Government of India has launched several supporting initiatives, including provisions in the 2025–26 Annual Financial Statement for AI research, talent development, and organisational capacity building, and the National Artificial Intelligence Mission, which aims to position India as an international hub for AI and machine-learning research and to extend the benefits of AI to industry, education, and society more broadly.

Table 2: Application Areas of AI in Financial Services

AI Technology	Applications
Machine Learning	Anti-money laundering, anomaly detection, credit scoring, loan decisions, fraud detection
Robotic Process Automation	Data enrichment and analysis, faster completion of repetitive back-office tasks
Natural Language Processing	Sentiment analysis, chatbots, information summarisation, text-to-speech conversion
Speech Recognition	Identification and authentication of unique voices
Image Recognition	Bill payments, document verification
Automation and Digitisation	Back-office operations
Virtual Assistants	Customer service, personalised product offerings

Several underlying AI concepts are of particular relevance to financial services. Machine Learning (ML) allows systems to learn from past data and improve their performance without explicit programming, and is

used for credit scoring, fraud detection, risk assessment, customer segmentation, and investment forecasting. Deep Learning (DL), a more advanced form of machine learning based on multi-layered neural networks, supports financial market prediction, document verification, biometric authentication, and advanced fraud detection. Natural Language Processing (NLP) enables systems to interpret and generate human language, supporting AI chatbots and virtual assistants, customer sentiment analysis, processing of financial reports, regulatory compliance monitoring, and automated document analysis. Robotic Process Automation (RPA) automates repetitive, rule-based tasks such as account opening, loan processing, claims processing, payment reconciliation, and report generation. Predictive Analytics combines AI algorithms with statistical techniques to forecast loan defaults, customer churn, cash flow, and investment outcomes. Algorithmic Trading uses AI to execute financial transactions automatically based on real-time market analysis, helping identify opportunities and optimise portfolios, while AI-enabled Customer Relationship Management (CRM) systems provide personalised financial products, automated support, and tailored investment advice based on customer behaviour.

II. REVIEW OF LITERATURE

Artificial Intelligence has emerged as one of the most widely discussed forces reshaping the financial services industry, with researchers examining its effect on fraud detection, credit assessment, customer engagement, financial inclusion, and regulatory compliance. This study draws on recent research covering these themes to build a picture of how AI is perceived and applied across the financial sector, and uses this review to identify the specific aspects of AI adoption in financial services that call for further primary-data-based investigation.

Trivedi (2025) examined the role of Fintech and AI in advancing financial inclusion, using a conceptual review of digital financial services, and found that AI-enabled fintech solutions improve the availability, timeliness, and affordability of banking, credit, and insurance services for underserved populations.

Lokeshwari (2025) examined the effect of AI-driven automation and machine-learning-based credit rating on financial exclusion, fraud, and system instability, using secondary data from the RBI and NITI Aayog together with primary data from 468 stakeholders analysed through structural equation modelling based on the Technology Acceptance Model, Financial Inclusion Theory, and Fraud Triangle Theory, and found that AI improves efficiency and transparency but its impact on fraud prevention remains debatable, recommending continued investment in internet accessibility, financial literacy, and AI infrastructure.

Viswanathan (2025) examined the transformation of financial services through AI integration, focusing on personalised advisory services and regulatory compliance, using a review of current AI implementations, and found that advanced analytics enhance decision-making, improve operational efficiency, and revolutionise customer experience, while highlighting recent developments such as blockchain integration, multimodal AI, and green finance initiatives.

Sonia (2025) examined the impact of AI on the Indian banking system, using a review-based approach covering public and private sector banks, and found that AI technologies such as intelligent chatbots, credit-scoring algorithms, fraud detection systems, and automated investment advisory tools have improved customer satisfaction, operational efficiency, and risk management.

Singh (2025) examined the applications of AI across significant financial domains, including insurance and retail banking process automation, using a mixed-methods approach comprising a survey of 61 respondents together with a literature review, and found that these applications improve operational efficiency and customer experience while raising challenges relating to implementation and outcomes.

Sunesh (2026) examined how AI tools such as natural language processing, predictive analytics, and robotic process automation are transforming the financial services industry, using a review-based methodology, and found that these tools help banks and financial institutions complete tasks faster, minimise errors, manage risk, detect fraudulent transactions, assess creditworthiness, and improve client interactions.

Jain (2023) examined the use of AI in banking and finance with reference to customer experience, accuracy, and efficiency, using a review of existing literature, and found that AI technologies have improved decision-

making, reduced operating expenses, and increased profitability, while noting that data privacy, bias, and ethical concerns require attention.

Dubey (2026) examined the influence of AI-based analytical tools on financial decision-making among Indian finance professionals and students, using a survey-based approach, and found that AI supports faster and more precise decision-making, recommending the integration of AI-related content into professional training and financial education programmes.

Prema (2025) examined the widespread application of AI, including generative AI, in the financial services industry, using a review of recent academic research and industry perspectives, and found that AI is reshaping risk management, client interaction, conventional banking operations, and strategic decision-making, while identifying new opportunities and challenges related to AI adoption.

Bagdi (2025) examined the effect of AI on client experience, risk management, operational effectiveness, and decision-making accuracy in the financial services industry, using a review-based approach, and found that machine learning, natural language processing, and predictive analytics enable automation, anomaly detection, and personalised services, while cautioning that innovation must be balanced with regulation to address privacy and compliance concerns.

Yadav (2024) examined the integration of AI in FinTech and its effect on traditional financial services, using a review-based methodology, and found that AI technologies such as predictive analytics help institutions make better decisions, streamline procedures, and automate labour-intensive and error-prone processes.

Arunkumar (2025) examined the current state of AI adoption in financial services along with unresolved issues and potential risks, using a review-based approach, and found that financial services firms are well positioned to benefit from AI developments given their strong dependence on language and data, while identifying strategic and regulatory challenges that remain unresolved.

Choudhary (2025) examined the potential of AI-enabled tools such as chatbots, machine learning, biometric verification, and alternative credit scoring to improve financial inclusion in rural and semi-urban areas, using an evaluation of public sector banks, and found significant research gaps relating to infrastructure and digital literacy, concluding that AI-driven financial systems need to be made more inclusive, transparent, and effective.

Mahalakshmi (2022) examined the application of AI in banking operations, with particular reference to cybersecurity, fraud detection, customer service, credit decisions, and process automation at a public sector bank branch, using statistical analysis of primary data, and found that the banking industry has adopted AI extensively but continues to face difficulties in fully integrating it into operations.

Uppal (2023) examined the advantages and applications of AI in the Indian private banking sector, using a review-based approach, and found that AI offers considerable benefits for financial service delivery while identifying data-related and technological limitations that could affect the reliability of financial systems.

Chhavi (2022) examined the effect of AI adoption on the financial decision-making processes of Indian firms, using descriptive and inferential statistical analysis, and found that AI adoption varies significantly by industry and firm size, with larger, technology-driven organisations in sectors such as IT, finance, and e-commerce reporting higher integration, and concluded that successful adoption depends on sectoral readiness, firm capacity, and ethical governance.

Jagtap (2026) examined the impact of AI and Fintech on the operations, customer interaction, and organisational structure of traditional Indian banks, using a review-based study, and found that these technologies are transforming financial services, boosting customer satisfaction, and improving efficiency, while pointing to implementation challenges.

Agbalaja (2024) examined the role of Fintech-driven digitalisation and AI in the banking sector across developed and emerging economies, using a review-based approach, and found that the shift to digital finance has improved financial inclusion, customer retention, fraud detection, and economic efficiency, while emphasising the need to manage AI-related risks and foster innovation responsibly.

Dhanush (2025) examined the transformation of central banking, insurance, financial markets, retail and corporate banking, and payments through AI, using a review-based approach, and found that AI enhances decision speed and scale, personalises services, automates repetitive tasks, and enables new risk models, while generating new operational, model, concentration, and systemic risks that call for stronger regulatory cooperation and data oversight.

Thumar (2024) examined the transformation of the financial industry through AI technologies such as robotic process automation, machine learning, and natural language processing, using a review-based approach, and found that AI has significantly influenced risk management, banking operations, and customer service, while identifying related challenges and potential future developments.

Research Gap

Most of the studies reviewed above are conceptual or review-based, or rely on isolated case studies, secondary industry data, or small stakeholder surveys, and relatively few provide a structured, primary-data-based assessment of user perception of AI across the range of financial services functions such as fraud detection, credit scoring, robo-advisory, financial inclusion, customer service, and regulatory adequacy, together with associated concerns such as data privacy and algorithmic transparency. This study addresses this gap by collecting structured primary data from 100 respondents with knowledge of AI and the financial sector to assess their perception of AI's role, benefits, and challenges in financial services.

III. RESEARCH METHODOLOGY

Statement of the Problem

Artificial Intelligence is transforming financial services by improving efficiency, personalisation, fraud detection, and risk management, but its rapid adoption also raises questions relating to data privacy, transparency, and the adequacy of existing regulation. This study is concerned with understanding how people with knowledge of the financial sector perceive AI's role, effectiveness, and the challenges associated with its use in Indian financial services.

Need for the Study

AI is becoming increasingly important in financial services, supporting automation, faster decision-making, and improved customer experience, but its growing use also raises concerns relating to data security, algorithmic bias, and regulatory oversight. Understanding how customers, employees, and students engaged with the financial sector perceive AI's benefits and limitations is essential for financial institutions, regulators, and policymakers seeking to guide its responsible adoption.

Objectives of the Study

- To understand what Artificial Intelligence is and how it is applied in the financial services industry.
- To analyse respondents' perception of AI's role in banking accessibility, risk assessment, fraud detection, and customer support.
- To assess respondents' awareness of the benefits of AI in financial services, including financial inclusion, credit scoring, and personalised customer service.
- To examine concerns relating to AI in financial services, such as data privacy, algorithmic transparency, and regulatory adequacy.
- To identify the areas where AI in financial services could be strengthened and to offer suitable suggestions.

Scope of the Study

The scope of this study is limited to understanding perceptions of AI's role in financial services among respondents with knowledge of AI and the financial sector. The study covers AI's application to core financial activities such as risk assessment, deposits and withdrawals, loans, insurance, and investments, as well as issues relating to banking accessibility, lending criteria, fraud prevention, customer relationship management, and regulatory compliance. The findings are intended to help financial institutions, regulators, and researchers understand how AI is changing banking practices and perceptions and to identify areas that need further attention.

Research Design and Data Collection

The study adopts a descriptive research design and is based on primary data collected through a structured questionnaire, supported by secondary data drawn from published journals, research articles, industry reports, and the official websites of financial institutions and regulatory bodies such as the Reserve Bank of India (RBI).

Sample Size and Sampling Technique

The study is based on responses from 100 respondents who have knowledge of AI and financial services. A purposive sampling technique was used to select respondents with relevant knowledge, and a stratified sampling approach was applied across different respondent groups (students, employees, and business people) to ensure a reasonably representative sample.

Tools Used in the Analysis

- MS Excel
- MS Word
- Tables and Percentage Analysis

Limitations of the Study

- The study is based on primary data collected from a limited sample of 100 respondents.
- The study does not evaluate the working or technical performance of specific AI tools or systems.
- Respondents' perceptions may be influenced by their individual level of exposure to AI-based financial products.
- The findings reflect the views of respondents at a particular point in time and may change as AI adoption evolves.
- Time and resource constraints limited the scope of the study.

IV. DATA ANALYSIS AND INTERPRETATION

This section presents the results of the primary survey of 100 respondents on the role of Artificial Intelligence in financial services, covering respondent demographics, awareness, perceived benefits, and concerns, together with their interpretation.

4.1 Age Group of Respondents

Table 4.1: Age Group of Respondents

Particulars	No. of Respondents	Percentage
Below 18 years	4	4%
18–25 years	71	71%
26–35 years	19	19%
36–45 years	6	6%
Above 45 years	0	0%
Total	100	100%

Interpretation: The majority of respondents (71%) fall in the 18–25 years age group, followed by 19% in the 26–35 years group and 6% in the 36–45 years group. Only 4% are below 18 years, and none of the respondents are above 45 years, indicating that the sample is dominated by younger, digitally engaged respondents.

4.2 Gender of Respondents

Table 4.2: Gender of Respondents

Particulars	No. of Respondents	Percentage
Male	66	66%
Female	34	34%
Total	100	100%

Interpretation: Male respondents account for 66% of the sample, while female respondents account for the remaining 34%.

4.3 Occupation of Respondents

Received: 22-06-2026 | Accepted: 26-07-2026 | Published: 01-08-2026 | www.ajaccm.com

Table 4.3: Occupation of Respondents

Particulars	No. of Respondents	Percentage
Students	47	47%
Employees	48	48%
Business people	5	5%
Others	0	0%
Total	100	100%

Interpretation: Employees form the largest group at 48%, closely followed by students at 47%, together accounting for 95% of the sample. Only 5% of respondents are business people, and none fall under the 'Others' category.

4.4 Educational Qualification of Respondents

Table 4.4: Educational Qualification of Respondents

Particulars	No. of Respondents	Percentage
Undergraduates	24	24%
Post-graduates	71	71%
Diploma	5	5%
Total	100	100%

Interpretation: Post-graduates form the majority of the sample at 71%, while 24% are undergraduates and 5% hold a diploma qualification.

4.5 Years of Experience in the Financial Sector

Table 4.5: Years of Experience in the Financial Sector

Particulars	No. of Respondents	Percentage
1–3 years	85	85%
4–6 years	4	4%
6–10 years	6	6%
Above 10 years	5	5%
Total	100	100%

Interpretation: A large majority of respondents (85%) have 1–3 years of experience in the financial sector, while 6% have 6–10 years, 5% have above 10 years, and 4% have 4–6 years of experience, indicating that most respondents are relatively early in their engagement with the sector.

4.6 Understanding of AI in Financial Services

Table 4.6: Understanding of AI in Financial Services

Particulars	No. of Respondents	Percentage
Strongly Agree	33	33%
Agree	62	62%
Neutral	5	5%
Disagree	0	0%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: A large majority of respondents (95% combining Agree and Strongly Agree) report a clear understanding of what AI means in financial services, with only 5% remaining neutral and none disagreeing.

4.7 AI in Automating Routine Financial Tasks

Table 4.7: AI in Automating Routine Financial Tasks

Particulars	No. of Respondents	Percentage
Strongly Agree	24	24%
Agree	47	47%
Neutral	29	29%

Disagree	0	0%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: 71% of respondents (Agree and Strongly Agree combined) recognise AI as being widely used to automate routine tasks in financial services, while 29% remain neutral and none disagree.

4.8 AI-Powered Robo-Advisors and Investment Decisions

Table 4.8: AI-Powered Robo-Advisors and Investment Decisions

Particulars	No. of Respondents	Percentage
Strongly Agree	19	19%
Agree	48	48%
Neutral	33	33%
Disagree	0	0%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: 67% of respondents agree that AI-powered robo-advisors help in making better investment decisions, while a comparatively larger neutral segment (33%) suggests some respondents remain undecided about robo-advisory tools specifically.

4.9 AI and Financial Inclusion

Table 4.9: AI and Financial Inclusion

Particulars	No. of Respondents	Percentage
Strongly Agree	19	19%
Agree	52	52%
Neutral	29	29%
Disagree	0	0%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: 71% of respondents agree that AI helps improve financial inclusion by reaching underserved populations, while 29% remain neutral and none disagree.

4.10 AI in Credit Scoring and Risk Assessment

Table 4.10: AI in Credit Scoring and Risk Assessment

Particulars	No. of Respondents	Percentage
Strongly Agree	19	19%
Agree	57	57%
Neutral	9	9%
Disagree	4	4%
Strongly Disagree	10	10%
Total	100	100%

Interpretation: 76% of respondents agree that AI improves accuracy in credit scoring and risk assessment, while 9% remain neutral and 14% (Disagree and Strongly Disagree combined) express reservations, indicating some residual concern about AI-based credit decisions.

4.11 AI in Detecting and Preventing Financial Fraud

Table 4.11: AI in Detecting and Preventing Financial Fraud

Particulars	No. of Respondents	Percentage
Yes	81	81%
No	9	9%
Sometimes	6	6%
Maybe	4	4%

Total	100	100%

Interpretation: A large majority of respondents (81%) believe that AI is effective in detecting and preventing financial fraud, while 9% disagree, 6% say 'Sometimes', and 4% say 'Maybe', confirming fraud detection as one of the most strongly endorsed applications of AI in financial services.

4.12 AI and Personalised Customer Service

Table 4.12: AI and Personalised Customer Service

Particulars	No. of Respondents	Percentage
Strongly Agree	19	19%
Agree	62	62%
Neutral	19	19%
Disagree	0	0%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: 81% of respondents agree that AI enables faster and more personalised customer service, while 19% remain neutral and none disagree.

4.13 AI Support for Decision-Making in Financial Institutions

Table 4.13: AI Support for Decision-Making in Financial Institutions

Particulars	No. of Respondents	Percentage
Yes	67	67%
No	33	33%
Sometimes	0	0%
Maybe	0	0%
Total	100	100%

Interpretation: 67% of respondents believe AI supports better decision-making for financial institutions, while 33% disagree, suggesting that while the majority view is positive, a notable minority remains unconvinced.

4.14 Adequacy of the Existing Regulatory Framework for AI

Table 4.14: Adequacy of the Existing Regulatory Framework for AI

Particulars	No. of Respondents	Percentage
Strongly Agree	33	33%
Agree	14	14%
Neutral	48	48%
Disagree	5	5%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: Nearly half of respondents (48%) remain neutral about whether existing regulatory frameworks are sufficient for governing AI in financial services. While 47% (Strongly Agree and Agree combined) express confidence in current regulation, the large neutral segment suggests considerable uncertainty on this issue.

4.15 Need for New Models to Understand AI's Role in Financial Stability

Table 4.15: Need for New Models to Understand AI's Role in Financial Stability

Particulars	No. of Respondents	Percentage
Strongly Agree	33	33%
Agree	52	52%
Neutral	9	9%
Disagree	6	6%
Strongly Disagree	0	0%

Total	100	100%

Interpretation: 85% of respondents agree that new models are required to better understand AI's role in maintaining financial system stability, while 9% remain neutral and 6% disagree.

4.16 Data Privacy Concerns while Using AI in Financial Services

Table 4.16: Data Privacy Concerns while Using AI in Financial Services

Particulars	No. of Respondents	Percentage
Strongly Agree	19	19%
Agree	67	67%
Neutral	7	7%
Disagree	5	5%
Strongly Disagree	2	2%
Total	100	100%

Interpretation: 86% of respondents (Agree and Strongly Agree combined) report facing data privacy concerns when using AI in financial services, while only 7% are neutral and 7% disagree, indicating that data privacy remains a significant area of concern for most respondents.

4.17 Transparency of AI Decision-Making and User Trust

Table 4.17: Transparency of AI Decision-Making and User Trust

Particulars	No. of Respondents	Percentage
Strongly Agree	28	28%
Agree	48	48%
Neutral	24	24%
Disagree	0	0%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: 76% of respondents agree that a lack of transparency in AI decision-making reduces user trust, while 24% remain neutral and none disagree, underlining transparency as an important factor in sustaining customer confidence.

4.18 Comfort with AI-Based Financial Services (e.g., UPI Fraud Alerts and Chatbots)

Table 4.18: Comfort with AI-Based Financial Services (e.g., UPI Fraud Alerts and Chatbots)

Particulars	No. of Respondents	Percentage
Strongly Agree	43	43%
Agree	28	28%
Neutral	24	24%
Disagree	5	5%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: 71% of respondents feel comfortable using AI-based financial services such as UPI fraud alerts and chatbots, while 24% remain neutral and 5% disagree.

4.19 AI and Reduction in Operational Costs

Table 4.19: AI and Reduction in Operational Costs

Particulars	No. of Respondents	Percentage
Yes	81	81%
No	9	9%
Sometimes	6	6%
Maybe	4	4%
Never	0	0%
Total	100	100%

Interpretation: 81% of respondents believe AI helps reduce operational costs for banks and fintech companies, while 9% disagree, 6% say 'Sometimes', and 4% say 'Maybe', confirming cost reduction as one of the most widely recognised benefits of AI adoption.

4.20 AI-Driven Personalisation and Customer Satisfaction

Table 4.20: AI-Driven Personalisation and Customer Satisfaction

Particulars	No. of Respondents	Percentage
Strongly Agree	38	38%
Agree	47	47%
Neutral	9	9%
Disagree	6	6%
Strongly Disagree	0	0%
Total	100	100%

Interpretation: 85% of respondents agree that AI-driven personalisation increases customer satisfaction in financial services, while 9% remain neutral and 6% disagree.

V. FINDINGS, SUGGESTIONS AND CONCLUSION

Findings

- 71% of respondents fall in the 18–25 years age group, forming the majority of the sample, while 19% are in the 26–35 years group and 6% are in the 36–45 years category.
- 66% of respondents are male, while 34% are female.
- Employees (48%) and students (47%) together make up 95% of the sample, with only 5% business people.
- 71% of respondents are post-graduates, 24% are undergraduates, and 5% hold a diploma qualification.
- 85% of respondents have 1–3 years of experience in the financial sector, indicating that most respondents are relatively early in their engagement with the sector.
- 95% of respondents have a clear understanding of what AI means in financial services, and 71% recognise that AI is widely used to automate routine tasks.
- 67% of respondents agree that AI-powered robo-advisors help in making better investment decisions, although a comparatively larger share (33%) remains neutral on this specific application.
- 71% of respondents agree that AI helps improve financial inclusion by reaching underserved populations.
- 76% of respondents agree that AI improves accuracy in credit scoring and risk assessment, although 14% express some level of disagreement.
- 81% of respondents believe AI is effective in detecting and preventing financial fraud, making this one of the most strongly endorsed applications of AI.
- 81% of respondents agree that AI enables faster and more personalised customer service.
- 67% of respondents believe AI supports better decision-making for financial institutions, while a notable 33% disagree.
- Only 47% of respondents express confidence that existing regulatory frameworks are sufficient for governing AI in financial services, with 48% remaining neutral, indicating considerable uncertainty on this issue.
- 85% of respondents agree that new models are required to better understand AI's role in maintaining financial system stability.
- 86% of respondents report facing data privacy concerns when using AI in financial services, making this one of the most widely shared concerns.
- 76% of respondents agree that a lack of transparency in AI decision-making reduces user trust.
- 71% of respondents feel comfortable using AI-based financial services such as UPI fraud alerts and chatbots.
- 81% of respondents believe AI helps reduce operational costs for banks and fintech companies.

- 85% of respondents agree that AI-driven personalisation increases customer satisfaction in financial services.

Suggestions

- Financial institutions should organise periodic seminars and workshops on Artificial Intelligence for staff and customers to build greater awareness of its use in banking and financial services.
- Institutions should strengthen their cybersecurity and data-protection policies to address customer concerns about privacy in AI-based financial products and services.
- Banks and financial institutions should work towards greater transparency, fairness, and explainability in AI models to strengthen customer trust in AI-based decisions.
- Regulators should develop clearer, more detailed guidelines on the ethical use of AI in the financial services industry.
- Institutions should continue to invest in AI-based systems for fraud detection to help prevent financial crime and strengthen banking security.
- AI-based customer service tools such as chatbots and virtual assistants should be improved for faster response times, better personalisation, and greater efficiency.
- Credit scoring and risk assessment processes conducted through AI should be regularly reviewed to ensure they do not discriminate against any group of borrowers.
- Financial institutions should invest in building customer awareness and digital literacy so that the benefits of AI-driven financial inclusion reach a wider population.
- Regulators and institutions should work together to develop updated frameworks that keep pace with the evolving role of AI in maintaining financial system stability.

Conclusion

This study examined the role of Artificial Intelligence in financial services based on the perceptions of 100 respondents with knowledge of AI and the financial sector. The findings show that AI has become a significant, widely recognised technology in the financial services industry, greatly enhancing customer satisfaction, operational effectiveness, decision-making, fraud detection, and financial inclusion. Respondents demonstrated a strong understanding of AI and acknowledged its growing significance in automating financial processes and improving the quality of financial services.

The study also found that AI enhances credit products and services, supports faster and more personalised customer service, strengthens security systems against fraud, and helps reduce the costs associated with running financial institutions. At the same time, a substantial proportion of respondents expressed concern about data privacy and the transparency of AI-based decision-making, and remained uncertain about whether existing regulatory frameworks are adequate to govern AI in financial services. This points to the continued need for stronger regulation and ethical AI development standards alongside technological advancement. As AI continues to play an important role in driving innovation and competition within the banking industry, financial institutions and regulators will need to give equal attention to risk management, accountability, and the protection of customer privacy to sustain trust as AI adoption deepens.

BIBLIOGRAPHY

Websites

- Reserve Bank of India (RBI) — Guidelines and publications on banking regulation and financial stability (www.rbi.org.in).
- NITI Aayog — Reports and data on financial inclusion and technology adoption (www.niti.gov.in).
- Moneycontrol — Financial and industry information on Indian financial services companies (www.moneycontrol.com).

Others

- Published research articles and journals related to Artificial Intelligence in financial services.
- Annual reports and industry publications of the selected financial services companies.

REFERENCES

- Trivedi, A. (2025). Fintech and AI as drivers of financial inclusion. International Journal of Financial Technology.
- Lokeshwari, D. V. (2025). Artificial intelligence, financial inclusion and fraud risk: Evidence from India. Journal of Banking and Finance Studies.
- Viswanathan, P. S. (2025). Transforming financial services through artificial intelligence: Opportunities and challenges. International Journal of AI in Finance.
- Sonia, D. (2025). Artificial intelligence in Indian banking: Customer satisfaction and risk management. Journal of Banking Technology.
- Singh, N. (2025). Applications of artificial intelligence in insurance and retail banking. International Journal of Financial Innovation.
- Sunesh, S. (2026). Role of AI tools in transforming financial services. Journal of Financial Technology and Management.
- Jain, R. (2023). Artificial intelligence in banking and finance: A review. International Journal of Management Studies.
- Dubey, D. K. (2026). Impact of AI-based analytical tools on financial decision-making. Journal of Finance Education.
- Prema, S. (2025). Generative AI and the financial services industry. International Journal of Banking Research.
- Bagdi, P. (2025). Artificial intelligence and the changing landscape of financial services. Journal of FinTech Studies.
- Yadav, R. A. (2024). Integration of artificial intelligence in FinTech: A review. International Journal of Financial Technology.
- Arunkumar, B. C. (2025). Artificial intelligence in financial services: Current state and unresolved issues. Journal of Business and Finance.
- Choudhary, N. (2025). AI-enabled financial inclusion in rural and semi-urban India. International Journal of Rural Banking.
- Mahalakshmi (2022). Application of artificial intelligence in public sector bank operations. Journal of Banking Studies.
- Uppal, M. (2023). Artificial intelligence in Indian private sector banking. International Journal of Commerce and Management.
- Chhavi (2022). Artificial intelligence adoption and financial decision-making among Indian firms. Journal of Corporate Finance.
- Jagtap, A. B. (2026). Impact of AI and FinTech on traditional banking operations in India. International Journal of Banking Innovation.
- Agbalaja (2024). FinTech, digitalisation and the role of AI in banking. Journal of Global Financial Studies.
- Dhanush, P. (2025). Artificial intelligence and the transformation of banking and financial markets. Journal of Financial Systems.
- Thumar, R. (2024). Artificial intelligence in the finance industry: A review. International Journal of Finance and Technology.