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# A Study on Artificial Intelligence (Ai) In Banking and Financial Services

#### L. Manjula

St. Joseph's College of Arts and Science for Women, Hosur, Tamil Nadu, India.

**Abstract:** In order to monitor the implementation of artificial intelligence technique in the banks and the responses from clients or consumers, this study focuses on artificial intelligence (AI) in banking and financial services in Chennai. In order to better track, anticipate, and react to customer behavior, banks and other financial institutions can mine the financial transaction data produced by the widespread use of digital payments and banking. Based on the literature research, secondary sources provide the data that is gathered to determine the information utilized in banking and financial services. A methodical survey is designed to gather the main information clients have regarding AI applications.

**Keywords:** AI–Artificial intelligence, banking, financial services and consumer satisfaction

#### 1. Introduction

A simulation of artificial cognition called artificial intellect (AI) helps to create intelligent automation of tasks more effectively. AI functions similarly to a human brain that can reason and make more correct decisions based on the information that is provided to it. The use of artificial intelligence (AI) in business nowadays is growing in frequency. Several industries use it, notably the financial industry. The bank uses artificial intelligence in a creative way that reduces costs and saves time. Banks employ algorithms to generate a cost-effective solution that enhances sales and customer service, leading to higher profits. The fastest-growing technology in the world right now is artificial intelligence. The banking sector will be among the first to use artificial intelligence. Artificial intelligence is the term used to describe machine intelligence. Bank financial transactions are evaluated using artificial intelligence, vast data sets, complex statistics, and machine learning techniques in order to facilitate learning, problem resolution, and decision making.

## Ai In Financials Services

Additionally, there have been other advancements made in the financial sector's recruiting, asset management, customer service, and communications processes. For instance, modern banking and stock investment rely heavily on technical know-how and pure luck. However, in the future, we will be able to manage money very differently thanks to computers, crowd sourced data, and sentiment analysis.

#### 2. Reasons For Adoption Of ai In the Banking Sector

**Rivalry:** There is a great deal of competition in the financial sector, which motivates all banks to strive for service improvement.

**Self-Employment:** This enables them to complete their work more quickly because there is a labor shortage and a high workload in the banking industry.

**Operational Efficiency:** Improving operational effectiveness is a top priority for the banking industry. Profitability and compliance, both of which AI will enable.

**Personalized Solution:** All banking sectors are attempting to meet the needs of their customers by providing more individualized solutions.

**Risk Management:** AI offers a wide range of solutions designed to lower risk, save costs, and deliver the best possible outcome.

**Productivity:** Increasing worker output Software for robotics to enhance human activity Handling enormous amounts of data while recording at a fast pace.

## Major Areas Of Artificial Intelligence Can Be Used In Banking

1. Tailored Financial Services

- 2. Electronic wallets
- 3. Telephone-Based Banking
- 4. Assistance for customers
- 5. The shift to digitalization from branch lines
- 6. Cut Expenses
- 7. Reduce Risk
- 8. Boost Income

## Why apply ai to the banking sector?

- **1.** Significant obstacles in the banking industry.
- 2. Pay attention to process performance.
- 3. Start working for yourself in branches.
- 4. Customers want customized solutions that are delivered in diverse ways.
- 5. Constructing efficient functionality.
- 6. Raising employee output.
- 7. Emphasizing the emphasis on efficiency and productivity.
- 8. Visualization that makes use of robotic equipment to boost human activity.
- 9. Lowering the likelihood of corruption and fraud.
- 10. Utilize record-breaking speeds to handle massive volumes of data and retrieve crucial information.

Different Ai Application In Banking And Financial Services

**Customer Support and Marketing** 

**Chatbots:** Autonomous software applications designed to have intelligent chat or voice discussions with humans; Always accessible and incredibly user-friendly, although training takes a while.

**Robo-Advisors for Financial Products:** Online services that employ algorithms to provide financial advice, reinvest dividends, create and rebalance portfolios automatically are known as robo-advisors for financial products. This calls for little to no human involvement.

**Personalized financial services:** regardless of risk tolerance, clients receive individualized attention from roboadvisors that track their objectives and recommend which stocks or bonds to purchase or sell.

**Smart Wallets:** Mobile wallets with intelligence incorporated for smart services like chat, booking taxis, buses, events, movies, and paying utility bills, among other things.

**Emotional AI:** A subfield of artificial intelligence that uses cutting-edge voice and facial recognition technology to help machines identify human emotions.

Security and Compliance:

**Fraud Detection and Prevention:** Reduce the amount of ongoing labor required to identify and stop security breaches. These platforms automate the process with machine learning.

**Compliance Monitoring:** Instead of taking hours to review long documents, use AI to fiany problems in a matter of seconds.

**Intelligent QRC:** A new breed of AI firms focused on assisting businesses in maintaining compliance. Examples of their services include making sure no paperwork is overlooked throughout the filing process and mitigating risk by tracking consumer behavior based on actual data.

## Back-End BPM

**Robotic Process Automation:** The automation of repetitive activities and high volume back-office processes with software robots to reduce labor costs, improve productivity, and improve accuracy.

**Algorithmic Trading:** All used in high-frequency trading to make millisecond investment decisions based on data from several financial marketplaces. There are reports indicating that more than 70% of trading globally is currently run by algorithms.

**Investment Research:** AI to guide investors on stock picking decisions. It can assist with research, portfolio management, and covering more firms in global exchanges.

**Human Resources:** AI can shortlist applications from social networking sites, screen applicants in real time via chat, assess the likelihood that a candidate would drop out, and interact with new hires to save hiring managers' time in a variety of recruitment processes.

## Uses Of Ai in The Banking Sector

**Customer Interface:** Chatbots are utilized on platforms such as mobile applications and websites, as well as social networking sites like Face book Messenger, Telegram, WhatsApp, and Twitter, to provide responses to customers' questions. Banks also use visual customer support for this reason.

Customer insights and personalization: AI is able to provide clients with personalized interaction services by utilizing algorithms. The technique suggests that products be customized to meet the needs of consumers based on digital profiles and transaction histories. Gaining a deeper comprehension of your clients' emotional and cognitive states can be facilitated by using emotional analytics for social enterprises. Based on audio and visual

inputs, the application would help small financial counsellors better grasp the challenges that could lead customers to split or share during the microfinance process.

**Insights into Business and Strategy:** Artificial Intelligence (AI) can provide enhanced comprehension since banks now possess more access to data. This kind of analysis could provide you with more in-depth and up-to-date understanding of internal operations and external market dynamics, as well as practical plans that can benefit several departments. For example, comprehensive consumer data can support portfolio planning and marketing. Electronic payments are another application for it.

**Backend Processes:** AI is being used to assist with labour-intensive, rule-based, highly organized, and methodical backend office operations. AI technology may be used to outsource data from crucial financial documents and create "intelligent automation" as the default for reporting on investments and earnings.

Credit Scoring and Loan Decisions: Lenders create credit profiles and compute credit ratings using artificial intelligence. Businesses can quickly assess a person's credit by looking into their banking habits, earning and spending trends, family history, telephone usage, and other information.

**Fraud Detection and Risk Management:** Artificial intelligence (AI) is used to track and stop various fraud, money laundering, and malpractice incidents as well as to identify potential threats.

#### **Indian Banks Using Ai**

Predictive analytics, speech recognition, and other AI technologies are already used by about 32% of the banking industry, per a collaborative study conducted by the National Business Research and Science Centre. Twelve Indian banks have approved AI projects over the past few years. Included in the list are:

a)	SBI
b)	Baroda Bank (BoB)
c)	Allahabad Bank
d)	Andhra Bank
e)	YES Bank
f)	HDFC Bank
g)	ICICI Bank
h)	Axis Bank
i)	Canara Bank
j)	City Union Bank
k)	Punjab Nationa lBank
1)	IndusInd Bank

#### The Future of Artificial Intelligence in Banking

As AI technology develops, AI will become more potent and every client will be able to have a more secure banking experience. Artificial Intelligence will lay the foundation for increased productivity and the generation of new jobs. AI also has the ability to change the customer experience and create a new financial business model. Humans and technology must work together to get the best results, which will require training and a reassessment of the future of banking jobs. Moreover, mass customization—which can only be accomplished with the help of blockchain and artificial intelligence—is the secret to realizing enormous potential in the future. Banks use artificial intelligence (AI) to offer cutting-edge customer experiences through a range of solutions and to set new benchmarks for the Indian financial industry, forging ahead by embracing technical rigor. AI technology is used to transform data into a digital format. It also enhances the customer experience. It saves time for the bank as well as the customer. It contributes to a decrease in human error. It aids in the growth of a devoted and powerful customer base. It makes large inflows and outflows of cash easier to handle. It makes cashless transactions possible from anywhere, at any time.

### Artificial Intelligence-The Changing Face of Banking in India

Artificial intelligence in banking is capable of making decisions and persuading customers with persuasive strategies. Artificial Intelligence (AI) gives the banking sector the ability to understand its customers' preferences, guarantee customer satisfaction, and help customers comprehend what their banks demand of them. Banks are making extensive use of modern technologies to expand their customer base and enhance expansion opportunities. AI helps banks modernize every aspect of their business, from cyber security and sales contracts to bookkeeping. Banks are showcasing their contributions for the future along with services that make use of block chain, machine learning, and data analytics. Fintech firms and several traditional banks have partnered to provide their customers modern banking services. Conventional banks face competition from tech-savvy fintech companies that leverage emerging technologies like artificial intelligence. AI gives banks the ability to offer innovative products and services, improve client experiences, and fully explain how they operate. To obtain a competitive edge, banks will have to embrace artificial intelligence and implement its business strategy.

#### 3. Conclusion

To summarize, banks are experimenting with and utilizing artificial intelligence (AI) to transform the way they assist their customers. AI is becoming more and more popular. Artificial intelligence thus has a promising future in the financial industry. Customers may now transact more easily and whenever they want, without having to wait in line at the bank, thanks to the advent of artificial intelligence (AI). The aim of artificial intelligence is to provide effective and time-saving services along with individualized, superior customer satisfaction. Adoption of Banking and Financial Services AI in applications was highest followed by KYC/AML, Chatbots and Security Compliance and also helping to fulfill the customer demand faster and easier. The consumers more commitment from representatives to the banking and financial services by giving development innovative preparing to improve the AI procedures in the workplace. It is also being used to meet regulatory compliance, detect fraud, and assess individual creditworthiness.

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