

AI BASED DISCOURSE OF BANKING INDUSTRY

ABSTRACT

Around the world, artificial intelligence is a technology that is rapidly evolving. the financial One of the first industries to use artificial intelligence is the sector. The objective of the LR will assess how banks use their resources and the difficulties they have managing operations. Artificial Intelligence-related with a focus on the SBI Cantonment Branch. The LR concentrated on how banks employed artificial intelligence to handle processes like client services, financial decision-making, cybersecurity and fraud detection automating processes, etc. Statistical tools like were used to conduct the analysis. Such LR demonstrates the obstacles that the banking industry has in using artificial intelligence knowledge of the bank's operations.

Keywords: Artificial Intelligence, Fraud and CyberSecurity, Chatbot and customer service.

I. INTRODUCTION

1.1

Artificial intelligence: The emulation of human intelligence is known as Artificial Intelligence (AI). artificial intelligence in computers that are engineered to think and act like human actions. Additionally, any machine that demonstrates characteristics linked with a human intellect, like learning and solving problems. The perfect quality of Artificial intelligence is the capacity of a system to understand situations and decide on the best course of action. achieving a

particular aim. Machine learning is a subset of artificial intelligence, which refers to the idea that software can automatically adapt to and learn from without human assistance, generate fresh data [13]. Deep learning methods make this possible. Automated learning using a vast amount of unstructured data, including as audio, video, or text. Accenture defines AI in the context of banking as, “A computer system that is able to perceive, understand, act, and learn. a system with perception study and comprehend the information it gets, consider the environment around it, and act based on that knowledge, and enhance performance by taking what happened [1]. Furthermore, by enabling machines to interact more organically with their Using data, people, and the environment, technology can expand the capabilities of Both computers and people are vastly superior to what either can accomplish on its own.

1.2 Components of AI:

The following are the elements of artificial intelligence:

- ALGORITHM
- PATTERN IDENTIFICATION
- COMPUTER LEARNING
- PROGRAMMING IN DATA STRUCTURE
- PHYSICS
- COMPUTATIONAL METHODS

1.3 The Role of AI in the Banking Sector:

The power of artificial intelligence will transform banking in the years to come. using powerful data analytics to prevent fraud and enhance compliance. In a matter of seconds, an AI programme completes anti-money laundering tasks.

which would usually take days and hours. Additionally, AI enables institutions to manage massive amounts of data quickly. gain useful insights from it. Added features like AI bots and digital Payment consultants and biometric fraud detection systems result in wider customer base and higher-quality services.

II. Systems Using AI in the Banking Sectors

Artificial Intelligence technology systems used in banking sectors are

- Robotics
- Visual Computing
- Language
- Artificial Beings
- Learning Machines

2.1. Reasons for AI use in the banking industry:

- To increase organisational effectiveness.
- To identify security and fraud risk.
- In order to achieve a lot of data.
- To effective decision-making
- To respond to client inquiries.
- Easily determine a person's creditworthiness and a compliance report is generated for fraudulent transactions.
- Utilizing OCR technology, data from KYC documents may be easily extracted.

2.2. Artificial intelligence in the Banking Sector:

There are numerous areas where banks are using AI to streamline the processes:

- Fraud and online safety
- Consumer assistance
- Compliance
- Loaning and Financing (Credit Assessment)
- Organizational process management
- Marketing

2.3. Banks using AI in India:

Some of the banks I will refer which are

- Axis Bank
- Andhra Bank
- Bank of Baroda
- Canara Bank
- HDFC
- ICICI
- Kotak Mahindra Bank
- State Bank of India (SBI)

Axis Bank:

Customers of Axis Bank are welcome to discuss their banking concerns at any time and from any location. through an AI-powered bot. In July 2020, the third-largest private sector bank in India a conversational interactive voice response (IVR) system known as AXAA [12] was unveiled.

Andhra Bank:

Combined with Union Bank of India in April 2020, Andhra Bank is a medium-sized public sector bank in India. Due to the bank's extensive branch network and satellite offices in the country, it has incorporated advanced technology. To respond to client inquiries quickly and effectively, the bank uses an AI interactive assistant called "ABHi." The AI chatbot was developed by Floatbot and integrated with Andhra Bank's Core Banking Servers (CBS) to automate customer service for the five crore account holders of the bank [12].

Bank of Baroda:

Another public sector lender Bank of Baroda, focuses on enhancing customer service with AI while developing banking services and lowering the cost of account management. The bank makes use of cutting-edge technology, including the Baroda Brainy robot and the Digital Lab with free Wi-Fi services. A chatbot called ADI (Assisted Digital Interaction) [12].

Canara Bank:

It introduced the humanoid robot Mitra, created by the Bengaluru-based Inventio Robotics. This aids clients in navigating the bank. Another, little smaller one Candi, the human resource [12] is then supplemented by Mitra.

HDFC:

Another Indian banking and financial services company that employs AI is HDFC. In the bank's A clever chatbot named "Eva" utilises Google Assistant on millions of Android devices. devices that address client needs and offer them better services. HDFC as well as chatbot with AI called On Chat that debuted on Facebook Messenger in 2016[12].

ICICI:

A significant private sector bank in India, ICICI Bank, has utilised software robots in more than 200 business processes are spread across the company's various functions. This allows the bank was the first in the nation to widely implement an AI system in a variety processes [12].

Kotak Mahindra Bank:

Millions of Kotak clients are served by a clever AI-enabled chatbot from Kotak Mahindra with quick and available to respond to banking inquiries 24/7. The chatbot, known as A bilingual voice bot named Keya is included with Kotak's phone banking system. assistive technology and will supplement the current interactive voice response (IVR) system [12].

State Bank of India (SBI):

The main provider of banking services in the public sector in India is State Bank of India (SBI). In order to provide efficient banking services, the bank makes use of artificial intelligence. SBI Intelligent Assistant (SIA), a smart chat

assistant driven by AI, responds quickly to consumer inquiries and assists them with routine banking procedures like A person does. This clever chatbot was created by AI banking platform Payjo. designed to handle 864 million requests per day, or almost 10,000 requests per second, which is Google processes roughly 25% of the inquiries every day, according to reports [12].

III. APPLICATIONS

- Chatbot
- Fraud detection and Cybersecurity
- Loan and Credit decision
- Process Automation
- Tracking Market trends

Chatbot:

- A type of artificial intelligence is chatbots (AI). This device makes life easier. They are automatic programmes that communicate with customers like a person.
- Chatbots in the banking industry let clients handle queries promptly. efficiently acting as a listening network to help banks communicate more effectively comprehend consumer behaviours and user behaviour to give customised offers and resources.

Detecting fraud and cybersecurity:

Fraud detection is a set of procedures used to stop the theft of money or property. being gained via deception. In the world of banking, fraud may take the form of using cards that have been stolen.

Types of fraud detection methods:

- Data mining organises, segments, and classes data to search through millions of records. transactions to look for trends and spot fraud.
- Neural networks learn patterns that appear suspicious and employ those patterns to find them even more.
- Automated machine learning recognises fraud features. Pattern recognition identifies classes, groupings and suspicious patterns behavior[15].

CyberSecurity:

An AI system can help prioritise risks, identify zero-day malware and automatic corrective measures. It protects the client's assets. AI employs tools, processes and techniques to stop network, programmes and data from harm, virus, data theft, hacking and unauthorised entry.

Loans and Credit Decision:

- Banks can collect data by analysing mobile phone usage for credit scoring and AI. activities, social media use, etc. to get a better picture of creditworthiness.

- AI employs machine learning to forecast credit default along with more precision than the conventional techniques automating processes.

Tracking Market trends:

- AI helps to process large volume of data to forecast the market trends, currency
- Fluctuation and stock.
- Robotic advisor assists the merchants in the account opening process and
- Advises them on financial planning.

V. CHALLENGES THE BANK HAS FACED WHILE USING ARTIFICIAL INTELLIGENCE:

Many banks struggle with their refusal to change or adapt to new methods

- Lack of dedication to improving their workforce and human resources skills.
- Lack of supporting data to undertake operational changes, the banking industry is struggling with a mismatch between demand and response from clients.
- There is a lack of training in the current workforce.
- Inability of the workforce to handle AI tools.
- Not understand the customer's language when they communicate via texting or voice.

VI. CONCLUSION

The popularity of artificial intelligence is growing, and banks are learning and putting this technology into practise to transform customer assistance. So, Artificial intelligence has a very bright future in the banking industry, making it even consumer transactions are simpler to complete from anywhere and at any time without enduring long lines to use the bank. Consequently, artificial intelligence's purpose is to deliver individualised, high quality of customer satisfaction coupled with efficient and time saving services.

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