Excel International Journal of
Technology, Engineering & Management
Journal homepage: exceljournals.org.in
ISSN ONLINE: https://portal.issn.org/resource/ISSN/2349-8455
ISSN PRINT: https://portal.issn.org/resource/ISSN/2348-0378

IMPACT OF ARTIFICIAL INTELLIGENCE ON BANKING SECTOR

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Published online: February 2026

DOI Link: https://doi.org/10.64971/j.cph.eijtem.v13.i1.13.2026

Article published link: https://exceljournals.org.in/detail.php?id=856

Abstract
The study's overarching goal is to ascertain how AI will change the banking industry. There has been a meteoric rise in the usage of AI in banking in the last several years, and this essay will attempt to weigh the pros and cons of that trend. An examination of the many applications of artificial intelligence (AI) in banking, including customer service, fraud detection, risk management, and investment analysis, follows an introduction to the field's evolution and background. Concerns about privacy, algorithmic biases, and the absence of human supervision are some of the ethical and regulatory issues covered in the article as they pertain to the application of AI in banking. This research paper summarizes the impact that artificial intelligence has had so far on the banking industry and how it has changed the game.
Keywords: Artificial Intelligence, Digital disruption, Banking sector.

INTRODUCTION

Industries are being redefined and business processes are being altered as a result of digital disruption. In this technology-driven world, every industry is looking at potential solutions and implementing new ways to generate value. The banking business is going through revolutionary changes, the most notable of which is the increased focus on the customer [1]. Customers who are constantly using modern technology have come to expect banks to provide them with smooth experiences. Mobile banking, e-banking, and real-time money transfers are just a few examples of how banks have branched out into retail, IT, and telecom to keep up with customer demand. The banking sector has had to pay a price for these innovations, even though they have made most banking services more accessible to users.

Critical information is increasingly being transferred over virtual networks that are susceptible to cyber-attacks and fraudulence as a result of the convergence of banking with industries such as information technology, telecommunications, and retail [2]. Both the banks' bottom lines and their relationships with their consumers take a hit when these kinds of things happen.

Authorities have stepped up their oversight of financial transactions due to the increasing number of cybercrimes. Banks' capacity to stay up with digital transformation has been hindered by these restrictions, notwithstanding their usefulness in monitoring online financial
activities. Because of the strict requirements placed on them by international regulatory frameworks regarding capital adequacy ratios, banks are unable to make technological investments. Fast Financial Technology (FinTech) companies don't have to worry about keeping their capital adequacy ratios high, making banks vulnerable to their competition. A 2016 World Retail Banking Report found that 50% of consumers worldwide were more likely to switch banks if these companies were involved [3].

Banking on Artificial Intelligence

In order to compete with FinTech companies, banks can benefit from digitization and cognitive technologies combined with AI. A collaborative study by Narrative Science and the National Business Research Institute found that 32 percent of financial service providers are currently utilizing AI technologies such as voice recognition and predictive analytics [4]. With its superior data analytics

capabilities, artificial intelligence will revolutionize banking in the future, helping to prevent fraudulent transactions and enhance compliance. When compared to the hours or days needed by humans, AI algorithms can complete anti-money laundering tasks in a matter of seconds. With the help of AI, financial institutions can quickly process massive amounts of data and draw useful conclusions. Bots powered by artificial intelligence, digital payment advisors, and biometric fraud detection systems all contribute to better service for more people. Revenue goes up, expenses go down, and profits go up as a result of all this [5]. **AI is strengthening competitiveness of banks through:**

Improving the customer service experience: AI learns more about customers and their habits from previous contacts. Because of this, banks may personalize their financial products and services with features that are relevant to their clients' needs and interests, allowing them to engage with their consumers on a deeper level and form lasting relationships. Future outcomes and trends prediction: AI's ability to analyze past behaviors and project potential future scenarios makes it a useful tool for banks in this regard. This aids financial institutions in detecting patterns of anti-money laundering activity, recommending products to customers, and preventing fraud. In order to conceal the true nature of their illicit funds, money launderers engage in a variety of maneuvers. Banks can save millions of dollars thanks to AI's ability to uncover these covert operations using Machine Learning and Cognition. In a similar vein, AI can handle fraud by spotting questionable data patterns in massive data sets. In addition, AI's recommendation engines analyze historical data to foretell how data points will behave in the future, which aids banks in upselling and cross-selling [6].

Banking services like claims administration are data-intensive, expensive, and prone to human mistake; cognitive process automation makes it possible to automate these tasks. This guarantees a return on investment (ROI), cuts expenses, and expedites the processing of services at every stage. At its core, cognitive process automation is the automation of a series of operations that, by continuous machine learning, improve upon their prior iterations [7]. Authentic two-way communication: Chatbots can read the tenor of a text conversation and react accordingly. In addition to enhancing productivity and saving time, these cognitive machines can help banks save millions of dollars in costs over time.

Optimized solutions based on current facts in real-time are provided by cognitive systems that think and react like human specialists, allowing for effective decision-making. A knowledge database is a storage facility for this kind of system's expert information. Strategic judgments are made by bankers using these cognitive processes [8]. Robotic process automation: Through the use of Robotic Process Automation (RPA), AI evaluates and alters procedures. This makes it possible to automate around 80% of routine tasks, freeing up knowledge workers to focus on high-value duties that necessitate plenty of human interaction.

AI-driven future

By automating the knowledge labor, AI will not only give banks an advantage, but it will also make automation smart enough to eliminate cyber dangers and compete with FinTech companies. AI, which plays a crucial role in the bank's operations and processes, and does not require a lot of human engagement to adapt and innovate over time. With the help of AI, financial institutions will be able to provide customers with more tailored service while simultaneously cutting costs and improving operational efficiency. These advantages are no longer something that banks can only dream about in the far future [9]. Leaders in the banking industry have already acted diligently to enjoy these benefits by implementing AI.

What are the top benefits of AI applications in banking

Here are five areas where AI technologies are transforming financial operations and processes. AI is transforming banking and financial services. Here is a snapshot of the benefits AI is bringing.

1. Customer experience

Natural language processing technologies are being used in banking to efficiently and accurately process and analyze large volumes of documents, Gupta said.

The development of GenAI extends NLP's ability to process language content by being able to create new content. "GenAI represents a transformative leap in innovation, particularly in content creation," he said.

EY is working with banks to deploy GenAI models designed to summarize and extract customer complaints from recorded conversations. "This is showcasing the potential of AI to improve customer service and operational insights," Gupta said.

Enabling frontline of workers is another area where GenAI is transforming how customer service is delivered, Sindhu said. Banks are increasingly giving GenAI tools to relationship managers or branch associates. This helps staff have a better understanding of the products the bank offers as well as

what policies and procedures they need to follow when interacting with customers. It also provides the ability to chat or interact with data to gain a better understanding of portfolios or the customer segments they're dealing in, she said [10].

For many banks, chatbots are now a core component of customer service because of their ability to provide real-time responses to customer inquiries 24/7. Bank of America's Erica virtual assistant, for example, has surpassed two billion interactions and helped 42 million bank clients since its launch in June 2018.

2. Fraud detection and regulatory compliance

There is high momentum for using AI technology, including GenAI tools, for fraud detection and regulatory compliance. In order to detect new forms of fraud, machine learning may examine data in real time for anomalies.

GenAI is used to model normal banking behavior and identify activities that deviate from the norm, enabling banks to spot emerging threats.

AI is a significant improvement over manual approaches or rules-based anti-fraud software when it comes to improving fraud detection processes.

The task of sorting through the many compliance laws is fundamental to internal compliance teams. With the help of deep learning and natural language processing, AI can expedite and augment this process by reviewing compliance requirements and enhancing decision-making. On the flip side, bank fraud is becoming easier and cheaper for criminals thanks to GenAI's capacity to produce extremely convincing, human-like conversations. According to the "FSI Predictions 2024" research by Deloitte's Center for Financial Services, GenAI has the potential to increase U.S. fraud losses from $12.3 billion in 2023 to $40 billion by 2027. "The ready availability of new generative AI tools can make deepfake videos, fictitious voices, and fictitious documents easily and cheaply available to bad actors," according to the company, citing "an entire cottage industry on the dark web that sells scamming software" for as little as

$20. "This democratization of nefarious software is making a number of current anti-fraud tools less effective."

3. Internal business operations

GenAI is also enabling banks and financial institutions to automate internal processes as much as possible. This includes areas such as data extraction, incident resolution, or the generation of quick documents and summaries to understand internal policies and procedures -- "anything and everything that allows a bank to function day to day," Sindhu said. This will lead to productivity gains by freeing up staff to do more strategic work.

Right now, banks and financial institutions remain more focused on prioritizing internal use cases over customer-facing use cases, she added. They are trying to determine how they can manage risk and the cost-effectiveness of AI systems, how they can demonstrate ROI, and whether these investments are successful, Sindhu said. "These are the three top questions leaders are trying to work around as they scale their GenAI efforts."

4. Product innovation

Also noteworthy is the deployment of GenAI by some banks "to create game-changing use cases" through investments that allow the institution to either tap into new customer segments, create new sources of revenue, or even look at new types of business models that can be activated with the technology, Sindhu said.

For example, Erste Bank in Austria launched Financial Health Prototype, a customer-facing tool that lets banking customers ask questions about their financial life, such as how can they manage financial debt or plan for a vacation. Besides answering questions, the prototype also compares various products the bank offers that will be relevant for a specific customer.

"This is democratizing financial coaching or financial guidance" for customers, Sindhu said. Typically, these banking services are reserved for premium customers or people who can pay a fee. "But now, with GenAI, you're able to create access for all."

The bank generates ROI by acquiring new customers and improving sales leads, she said.

AI tools have the potential to make holistic financial advice more accessible and cheap for consumers under a direct-to-consumer approach, according to Deloitte's financial services study.

"Robo-advisory— delivering automated advice with minimal human intervention needed -- could be a cost-effective and scalable solution to provide advice to clients who have smaller portfolios," the firm's report read. The report added that robo-advisors powered by AI could offer real-time, personalized guidance, including portfolio selection, automatic rebalancing, and tax loss harvesting. This leads to the delivery of suggestions through "an interactive, conversational format with lower incremental client servicing costs than human advisers."

5. Lending

Additionally, lending-specific customer-facing apps are in the works. When it comes to small business loans, one example is the Casca conversational AI assistant system that Bankwell Bank in the US has implemented.

When small company owners apply for loans, the assistant is there to help them through the application process by answering their questions and providing any extra paperwork they may need. The small business owner can upload an application and receive regular reminders from the assistant if they abandon it halfway through.

LITERTAURE REVIEW

The impact of AI on the methods used to determine credit scores by banks and other financial institutions is discussed in this article [11]. The certification of AI algorithms and data used by banks is introduced by these constraints, which lay the groundwork for a new era of economic law.

In this research, we learned that various banks in India and around the world have conducted theoretical studies and literature reviews on the topic of using AI to improve internal banking procedures and customer relations [12]. The ranking of chatbot use cases on banking systems is determined on the level of satisfaction felt by clients. Implications for practice and theory: Evolving Indian banks should identify the most well-known use-cases to attract clients based on the whole picture of AI integration with banking operations. The installed Indian banks can also increase their business through the linkage across chatbot use-instances [13].

A potential threat on a macro level may arise from the inability to interpret or "auditability" AI and device learning algorithms, as mentioned in [14]. Similarly, unintended repercussions can also result from heavily using opaque styles. Appropriate risk management and supervision are critical issues with every novel service or product. Using the risks associated with AI and device learning—such as noncompliance with relevant regulations for data privacy, behavioral risks, and cybersecurity—it may be necessary to assess their applications. Programs must undergo thorough testing and "training" with objective information and feedback systems to ensure they perform as intended [15]. With proper risk management, AI and gadget learning algorithms show great potential. Last but not least, the phase provides first thoughts on governance, fashion improvement, and auditability via establishments and supervisors. Size, capitalization ratio, risk, investment price, sales diversity, labor productivity, age, and price-to-earnings ratio are some of the financial institution-specific elements that are examined and their implications on performance are addressed in [16]. The study also found that the size

of the financial institution, the percentage of non-appearing mortgages, and the diversity of sales are the most important determinants in the success of commercial banks in India [17].

Furthermore, the results demonstrate that during the duration of the catastrophe, there is a considerable impact of financial institution age, labor productivity, size, and sales diversification on the overall performance of the Indian banks. These technologies have the potential to revolutionize our social interactions, company operations, and even the way governments serve their populations, according to [18]. Even in developed countries, there are pockets of sectors that are increasingly embracing AI to better serve their customers and achieve economies of scale [19].

This is in spite of the fact that AI adoption varies greatly among geographies. According to the government, banks in India need to use technology, artificial intelligence (AI), and massive amounts of data in order to meet the growing demands of the country. Banks in India may benefit greatly from AI in a number of areas, including but not limited to: improving the overall customer experience, making more informed decisions about credit scoring, detecting fraud and defaults earlier, improving collections, and increasing labor efficiency. It became an integral part of our lives after all the banking services had been centered on salaried or wage earners, as explained in [20]. Current trends are based on the application of AI to customer service and the automation of robotic processes in India's banking sector. Banks' AI-based complete solutions are highly correlated with most customer experience variables.

THE IMPACT OF AI IN BANKING

To grasp the significance of AI in the financial industry, one must examine the advantages of this technology. Consequently, let's go over them right now.

Finances

The monetary effects of AI on the banking industry will be examined first. We should examine it from every angle because it is complex. Less money spent on acquiring new customers should be considered first. We must take into account the application of AI in banking in order to facilitate customer onboarding in this case. The use of biometric technologies and artificial intelligence speeds up and simplifies the procedure, which actively lowers abandonment rates. If more leads are converted into customers, your marketing (and sales) return on investment (ROI) will rise.

For example, consider SGB, a bank for whom we developed an eKYC solution that will yield a return in as little as three years! Consideration of your operational costs is the second item on our agenda.

As an example, consider your customer service workers. They can handle more inquiries when given the help of AI because it streamlines their navigation of your financial
institution's laws. The demand for CS agents drops as a direct consequence, leading to cost savings. The third part is recommendations for smart products. Your agents can receive intelligent sales recommendations derived from client data with AI-based solutions developed by Ailleron. This will increase sales and ensure a consistent revenue stream for your firm. Finally, artificial intelligence affects banking's bottom line by making better decisions generally. Automated natural language processing (NLP) models can reduce the time and effort spent on data processing and security, consumer segmentation, fraud detection, and other similar tasks.

Security

The effect on banking security is an important consideration when talking about the effects of AI. While AI does generally increase financial security and general data, this can be a double- edged sword at times.

The field of fraud detection is the first to employ AI for this purpose. When fed the right data, AI can detect suspicious activity on your customers' accounts, such as suspicious transactions, allowing you to catch and prevent fraud sooner. When you think about the hefty fines that could hit your institution for inadequate anti-fraud efforts, this becomes even more crucial. Second, AI can be a data security tool in and of itself. After being programmed to do so, it can identify efforts at cyberattacks and notify your staff of possible breaches. This allows you to respond faster and earn the trust of your customers, which is crucial when trying to bring in new ones. In light of its apparent advantages, why did we claim that it has a double-edged sword? Regrettably, AI has the potential to become a scapegoat and be inundated with harmful data in an effort to roil your operations. So, before you can utilize your models to increase data security, you need to be sure they are secure.

Loan Decisions

Other areas of banking and finance, such as lending, might also feel the effects of AI. Automated loan decisions that take extra data into account, including transaction history or the ability to detect fraud, are made possible by the firms that focus on these areas using AI-ML systems. But this is a very precarious strategy. Although these systems have the potential to be very useful and do a day's work in a flash, you should seriously examine how to incorporate AI into your company before putting it into action. Even after meticulous data engineering, it may be difficult to completely eliminate bias, which is why it is vital to design your data adequately to avoid potentially disastrous outcomes. Thus, although this approach has the potential to be useful, it will only be so if you exercise prudence when using it. For example, you should only use it to examine extra information that would otherwise be ignored.

On the other side, AI is already having an effect on this sector of banking and will continue to do so because many institutions utilize it for this reason.

Risk Management

Artificial intelligence (AI) is changing the way banks make decisions across the board, not just with loans. The use of AI to foretell the...unpredictable is another prominent change in general risk management.

Such systems find use in a variety of fields, including the analysis of currency swings and the prediction of natural disaster impacts. In this approach, banks and other financial organizations can reduce their exposure to risk caused by outside forces by making more educated decisions.

Sustainability

Artificial intelligence's long-term viability is debatable, but it can unquestionably assist financial institutions in becoming "greener." Can you tell me how it operates?

Banks are now required by new EU requirements to categorize and disclose their transactions according to their environmental friendliness. For this, you need powerful data processing capabilities, which AI possesses.

Financial institutions can improve their environmental footprint and continue to comply with EU regulations by using AI-powered systems to go through data collected from their business clients and determine which agreements qualify as "green" and which do not.

Customer Experience and Satisfaction

In the banking industry, AI also affects the overall client experience and happiness. This is multi-faceted, much like monetary advantages. First, AI speed up most procedures thanks to its data-processing abilities, which means quicker turnaround times and happier consumers. Everything from loan choices to customer service (as previously stated) to chatbots falls under this category.

Secondly, AI streamlines the operations, which is particularly helpful for customers who are exclusively online or who use mobile devices. Customers may accomplish their business without leaving the house thanks to intelligent eKYC processes, videobots, and easily accessible chat

support, which is frequently enabled by AI. This is especially important for younger consumers.
Finally, AI makes it possible to personalize at a high level. Building customer loyalty and satisfaction requires not only intelligent product recommendations but also personalized content that aligns with their objectives and expectations. Artificial intelligence prompters like AI Prompter can answer consumers' questions with personalized responses considerably more quickly than more conventional methods of communication.
Last but not least, AI can be used to provide supplementary services that strengthen client loyalty. Consider our AI-driven solution for a large Polish bank's transaction categorization needs. Thanks to our ML model's 92% accuracy rate in transaction classification, our client gained a deeper understanding of their clients' demands, allowing them to make more informed recommendations and ultimately increase customer happiness.

METHODOLOGY

This descriptive research discusses the definition and history of AI, as well as the difficulties encountered by the Indian banking sector while attempting to apply the technology. Consequently, it relies on secondary sources of information. Observation and documentary analysis form the basis of the entire work. The data used to create the graphics came from a variety of sources, including online databases and research papers.

FINDINGS:

This part is divided into three parts:

1. How AI is strengthening competitiveness of banks
2. Challenges faced in wider adoption of AI
3. Examples of AI in different Indian Banks
4. Datasets and Graphs

How AI is strengthening competitiveness of banks

1. Better customer experience: Artificial intelligence learns more about consumers and their habits based on previous interactions. Meaningful client engagement and solid customer relationships are made possible by banks' ability to personalize financial goods and services with intuitive interfaces and unique features. Customers will have an even better and more convenient banking and financial service experience as a result of AI integration. Know Your Customer (KYC) data entry is now faster and more accurate than ever before thanks to AI. On top of that, new items and financial deals can be unveiled at the right moment. Consumers can save time and effort by not having to manually complete tasks like applying for a personal loan or credit when artificial intelligence is used.

2. Chatbots: Among the most promising real-world uses of AI in banking, chatbots stand head and shoulders above the crowd. They have the ability to work around the clock once deployed, unlike employees with set schedules. Plus, they are always picking up new information regarding a customer's usage habits. They are better able to comprehend user needs as a result of this. Banks can guarantee their customers' continuous availability by incorporating chatbots into banking software. Chatbots can also offer tailored customer care and product recommendations based on user behavior analysis, which is particularly useful in the financial
services industry. Bank of America's virtual assistant Erica is a top example of artificial intelligence conversation in financial applications.

CHALLENGES IN THE WIDER ADOPTION OF AI IN FINANCE AND BANKING

1. Data security: The massive amounts of data acquired, many of which contain sensitive information, pose a significant threat to the use of AI in banking and necessitate further safeguards. To make sure your customer data is managed correctly, it's crucial to pick a technology partner that offers multiple security alternatives.

2. Lack of high-quality data: Before deploying an AI-based banking system on a large scale, banks require structured and high-quality data for training and validation. To guarantee the algorithm's practicality, high-quality data is required. Additionally, the AI model might act in an unanticipated way if the data is not presented in a machine-readable format. Therefore, in order to reduce privacy and regulatory concerns, banks that are quick to embrace AI will have to alter their data policies.

3. Lack of explain ability: Decision-making procedures frequently employ AI-based solutions due to their ability to reduce human error and increase efficiency. But they could be influenced by preconceived notions based on human error in judgment. The reputation and operations of a bank are put at risk when minor anomalies in AI systems quickly become huge ones. Banks should make sure that AI model recommendations and conclusions are well-explained to prevent accidents. Financial institutions should learn the model's decision-making process and then verify and explain

it.

4. Cyber Security At several phases of AI deployment, such as data collecting, model building, and system integration, cybersecurity issues may surface. A malevolent entity could, for instance, target the data pipelines of a financial institution in order to alter the data used for AI training, jeopardizing the accuracy of the models that are produced.

5. Ethical Consideration The use of artificial intelligence (AI) in the financial sector raises certain important ethical questions. Ethical concerns arise when considering issues of justice and possible harm to people or groups in light of AI algorithms' tendency to perpetuate prejudice and discrimination. Because AI systems may underwrite insurance policies, make investment decisions, and approve loans—all of which have a substantial impact on people's lives—these ethical considerations take on added significance in the financial services sector. Therefore, it is essential to establish moral standards and regulations for the development and use of AI in the financial sector.

EXAMPLES OF ARTIFICIAL INTELLIGENCE IN BANKING IN INDIA

State Bank of India (SBI)

As stated with great pride in SBI's annual report (June'23), the company has expanded its product offerings and improved customer satisfaction by deploying breakthrough technologies such as artificial intelligence (AI), machine learning (ML), and business analytics. The top Indian public sector bank is keen on forming new alliances to co-lend with fintechs and NBFCs, and it is also committed to adopting the NextGen Data Warehouse and Data Lake. SBI's forthcoming YONO app version will prioritize customer-centric design, hyper-personalized experiences, and innovative product offers made feasible by the deployment of AI/ML. Interactive Live Assistant (ILA) for SBI Cards is where you may find the latest information on products and services. Getting information about Card's features, benefits, services, and more is as easy as chatting with ILA. They have raised top-line revenue by thousands of dollars and produced over 130,000 leads thus far with the help of their generative conversational AI system.

HDFC Bank

"Eva," an AI-powered chatbot created by Bengaluru-based Senseforth AI Research, was created by HDFC Bank. Eva, which stands for Electronic Virtual Assistant, has conducted 1.2 million chats, answered more than 2.7 million consumer inquiries, and engaged with over 530,000 distinct individuals since its introduction. The financial institution claims that in under
0.4 seconds, Eva can sift through data from thousands of sources and provide simple answers. Eva has responded to over 100,000 inquiries from thousands of users in 17 different countries in the first several days after its launch.

ICICI Bank

Software robotics have been integrated into over 200 business procedures across several departments of ICICI Bank, the second-largest private sector bank in India. It would appear that ICIC is making reference to a specific category of software, sometimes known as "robotic software," that is commonly employed to automate administrative duties. This technology mimics human behaviors to automate and finish time-consuming, repetitive, high-volume commercial procedures; the bank asserted that it was the first in the country and one of the few in the world to utilize it.

According to an ICICI representative, software robots currently handle more than a million financial transactions every working day.

RESULTS AND STUDY DATASETS AND GRAPHS:

The table 1 and figure 1 below represent the percentage of people in different age groups that still prefer in person banking services rather than mobile or net banking:

Table 1: Percentage of Age group

Age Group	Percentage who prefer in person banking services
12-27	4%
28-43	4%
44-59	9%
60-78	16%

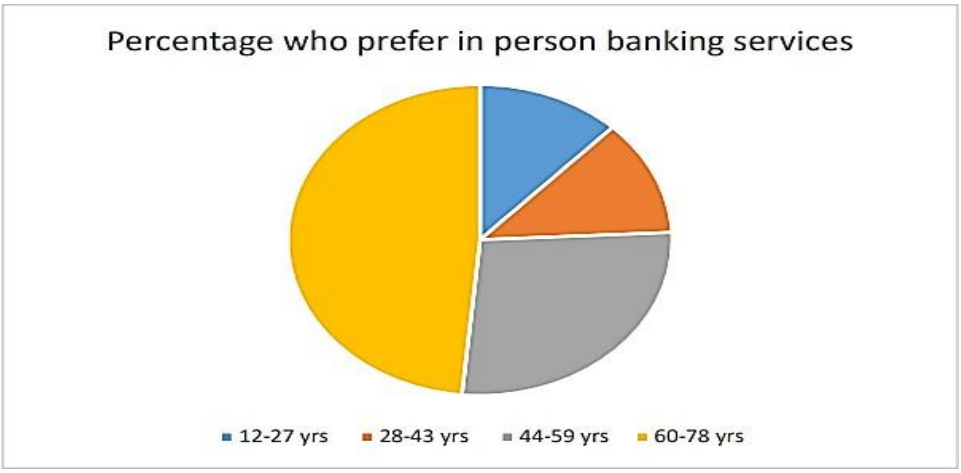

Figure 1: Percentage of Age group

The table 2 and figure 2 shows the Robotic process automation (RPA) accounts for 36% of all AI usage, while virtual assistants or conversational interfaces (VIs) account for 32% in customer service and 25% in the detection of fraud, underwriting support, and risk management departments.

Table 2: Robotic process automation (RPA) accounts of all AI usage

The most used AI technologies	Percentage
Robotic process automation	36
Virtual assistants	32
Machine learning techniques	25

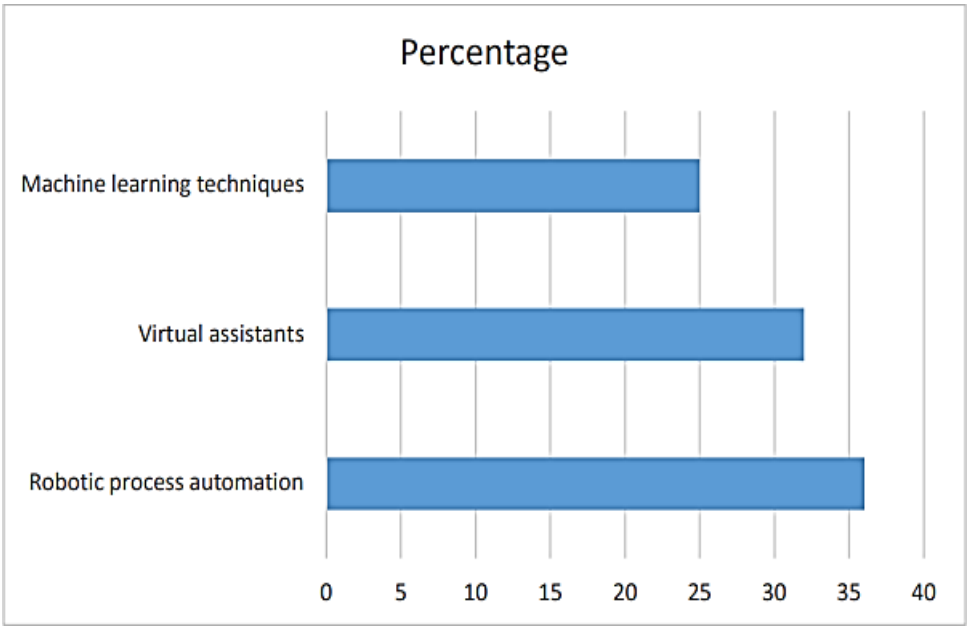

Figure 2: Robotic process automation (RPA) accounts of all AI usage

Forecasts indicate that the worldwide market for artificial intelligence (AI) in banking will expand from an initial 2020 valuation of $3.88B to a whopping $64.03B by 2030, a compound annual growth rate (CAGR) of 32.6% was shown in figure 3 and table 3.

Table 3: The worldwide market for artificial intelligence (AI) in banking

Year	The market size of AI in Banking sector worldwide
2020	$3.88 Billion
2030	$64.03 Billion

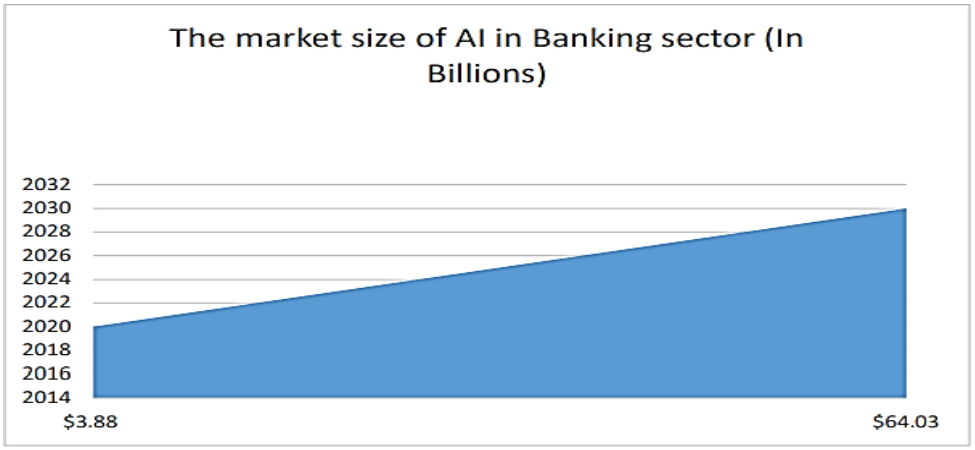

Figure 3: The worldwide market for artificial intelligence (AI) in banking

In recent years, India has established itself as a global leader in digital payments, due to its efforts to foster an atmosphere that encourages the adoption of these methods. Its relatively high rate of digital payment acceptance makes it an attractive case study for other countries looking to improve their own systems by mimicking its best practices. In FY 2022-23, the value of digital payment transactions reached INR 113.94 billion, up 58% from INR 71.97 billion the previous year was shown in figure 4 and table 4.

Table 4: Value of global digital payments

Financial Year	The value of digital payment transactions
2021-2022	71.97 Billions
2022-2023	113.94 Billions

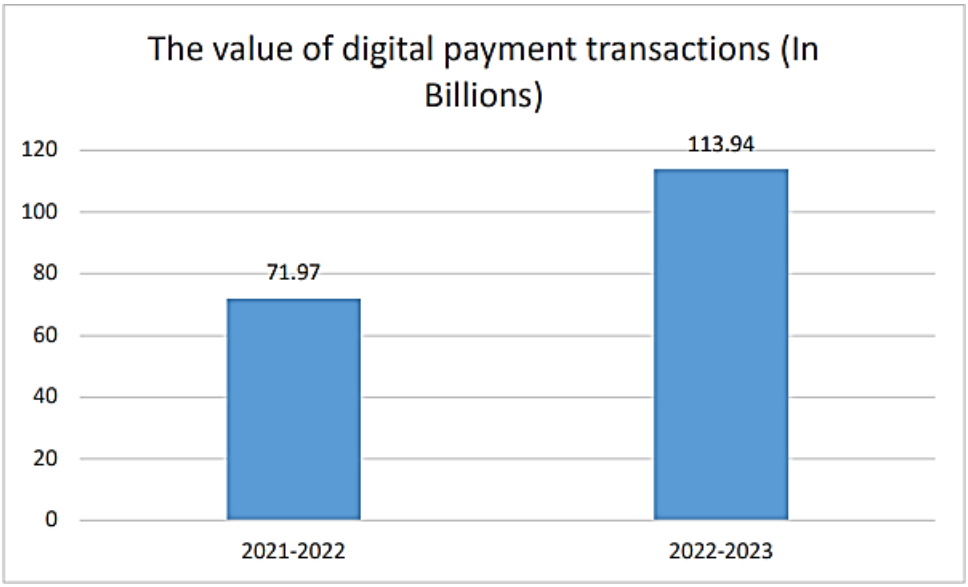

Figure 4: Value of global digital payments

CONCLUSION

Finally, AI will have a huge and significant effect on the financial sector. Several parts of this research study have explored how artificial intelligence is changing the face of banking and how financial services are developing. The integration of AI in banking presents both potential and obstacles, as highlighted by the findings. Automation and intelligent decision-making processes can improve operational efficiency, which is one of the main advantages mentioned. A number of AI-powered apps have enhanced security, shortened processing times, and enhanced customer service. These include chatbots, predictive analytics, and fraud detection systems. Banks can benefit from AI's real-time data analysis capabilities, which improve decision-making, risk management, and strategic planning.

On the customer experience front, AI has facilitated personalized services and tailored financial products. Chatbots and virtual assistants have become valuable tools in providing instant support and guidance to customers, enhancing overall satisfaction. The adoption of AI has also paved the way for innovative services like robo-advisors, which offer costeffective and algorithm-driven investment advice, democratizing access to wealth management. Nevertheless, there are obstacles to this banking technology revolution. It is imperative that regulatory agencies and the banking sector work together to resolve issues related to customer privacy, ethics, and the possible loss of jobs. For the sector to grow sustainably, it is critical to find a middle ground between using AI to improve productivity and making sure it is used responsibly and ethically.

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How do I cite this article?

Siva Hari Naga Shashank Varagani, IMPACT OF ARTIFICIAL INTELLIGENCE ON BANKING SECTOR, Excel International Journal of Technology, Engineering and Management, 2026; Volume -13, Issue-1_Page_82-92. DOI Link: https://doi.org/10.64971/j.cph.eijtem.v13.i1.13.2026