



Artificial Intelligence (Ai) In Banking Industry and Customers Perspective

Dr. G. Nagarajan

Professor, Department of Management Studies,
Arunai Engineering College, Thiruvannamalai.606603.
Tamilnadu. India. Email: vlrnag1971@gmail.com

Dr. R. Arunadevi,

Assistant Professor & Head, Department of Computer Science, Vidhya Sagar
Women's College, Vedanarayaapuram, Chengalpattu

Dr. Rafiya Banu.

Assistant professor, B.S.Abdur Rahman Crescent Institute of Science and Technology, Vandalur,
Chennai.

Dr. Umesh U

Associate Professor & Research Supervisor, Department of Commerce and Management Studies,
Amal College of Advanced Studies (aided by Govt.of Kerala & affiliated to Uty.of Calicut),
Nilambur, Kerala-679329
Email: umesh.tripunithura@gmail.com

Dr. A. Sulthan Mohideen

Assistant Professor of Commerce
Hajee Karutha Rowther Howdia College Autonomous, Reaccredited with A++Grade by NAAC,
Uthamapalayam Theni District
625533
Tamil Nadu

M. Raja Lakshmi

M.Phil., Research Scholar Jayagovind Harigopal Agarwal Agarsen College,
(Affiliated to University of Madras) Madhavaram, Chennai-60

Abstract

The simulation of human intelligence in machines, known as Artificial intelligence, has risen, and performs an essential function inside the new banking era. The present examine aims to discuss the client's perspective on synthetic intelligence's adoption in Asian international locations. The questionnaire changed into advanced and allotted to acquire information from five Asian nations (Pakistan, China, Iran, Saudi Arabia, and Thailand). The overall useable responses have been 799. The effects showed that the factors (cognizance, mindset, subjective norms, perceived usefulness, and information of artificial intelligence technology) had a tremendous and fantastic dating so that you can adopt AI within the banking sector. However, perceived danger suggests a bad but sizable courting with the intentions to adopt AI. Overall, the findings of this observe may be a worthy insight for making strategic selection-making inside the banking enterprise. This will allow the banking control to construct a approach to boom the believe of consumers, as a way to help them to overcome dangers and supply them self-assurance in the usage of virtual era at the same time as making transactions. The banking

sector additionally focuses on progressive AI technologies to enhance client offerings in addition to normal increase through producing greater revenue.

Keywords: Banking Sector; Awareness; Knowledge Of AI Technology; Consumers

INTRODUCTION

Artificial intelligence (AI) has become an increasingly relevant and common technology in recent years, and it has great potential to revolutionize all kinds of industries. One sector where AI can make a significant impact is the banking industry. From fraud detection to customer service, banks are already using AI to streamline their operations, reduce costs, and provide better services to all customers. However, this is just the beginning, and the future of AI in banking holds even more exciting possibilities. So, let us explore the current state of AI in the banking industry, examine the future possibilities and potential risks associated with the increased usage of AI, and discuss its role in shaping the future of banking.

KEY AREAS OF AI IN BANKING

COST SAVING

The emergence of AI in the banking sector has significantly reduced the cost of paperwork and printing. According to [1], USD 416 billion will be saved by 2023 with the use of AI technology in the banking sector. The operating cost of the banks is to access information for managerial and customer use without incurring any personnel and paper costs

CHATBOTS

Chatbot technology is one of the most unique and interesting AI technologies 'software, which interacts with customers with preprogrammed queries of the customers for courteous, effective communication, and instant problem resolution [3]. Chatbot technology in the banks not only resolves the queries of the customers without human

interaction but also collects data on customer queries, which can be used to resolve future problems [4].

CUSTOMER EXPERIENCE

Customer satisfaction and experience are proportionate to the adoption and use of digital financial services in banks. Customer preferences over the years have changed drastically and they demand quick responses with a personalized content. AI technology with machine learning uses a specific algorithm where banks cannulize and predict customer behaviour and credit scores to develop customized plans for their customers [1]. AI can help banks to digitize their processes to meet customer expectations. The study on a sample of 360 banking customers from China revealed that perceived intelligence and perceived anthropomorphism have a significant positive impact on consumer's social support. This study exposed how AI affects consumers 'satisfaction [5].

SENTIMENTS ANALYSIS

The behavioural predictions of the customers is the core concern of any financial institution to develop and offer financial products and or services. The sentiment analysis technology of AI predicts customer emotions, feelings, and responses via emails, social media, and surveys to predict the preferences of the customers [3]. This technology collects information to develop and display the contents of the users given their preferences and choices [26].

AUTOMATION

The use of AI technology in the banking sector without human intervention can also

be seen where digital machines count the currency accurately and quickly. This automation technology support increases the daily business volume of the banks, reducing work stress and the mathematical count error of cash-counting simultaneously. The use of automation systems in the banking sector has created a conducive working environment for the adoption of this technology in almost all the functional areas of financial institutions in the future.

FRAUD DETECTION

Financial institutions are more often exposed to the risk of fraud due to the large volume of business financial transactions and the complexity of the work tasks. As stated earlier, AI uses mathematical computation and complex algorithms that help monitor both customer and personnel behaviour by implementing unsupervised learning programs [6,7]. Thus, fraud prevention with the use of AI technology can become easy [2]. AI is purely based on the machine learning programming approach to alternate human tasks within the banking sectors to avoid potential threats to business function performance.

CUSTOMER EXPERIENCE

Customers are constantly looking for a better experience and convenience. For

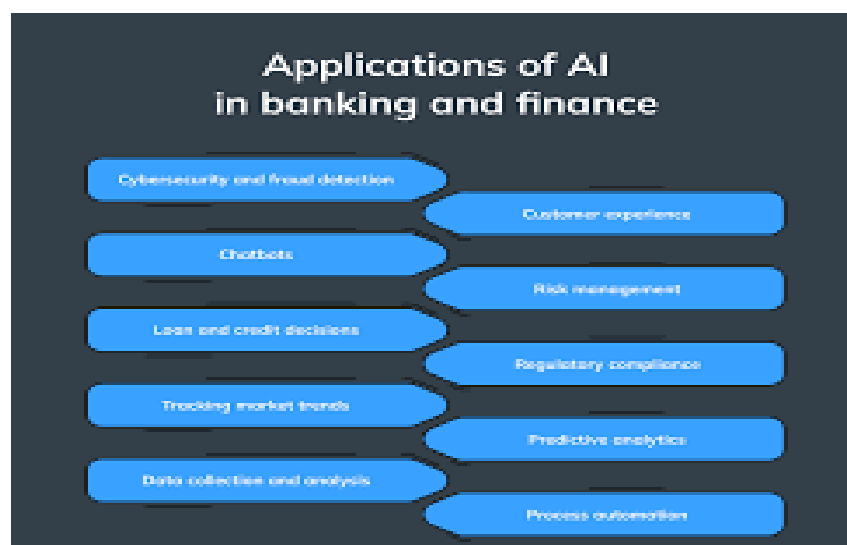
example, ATMs were a success because customers could avail essential services of depositing and withdrawing money even when banks were closed.

This level of convenience has only inspired more innovation. Customers can now open bank accounts from the comfort of their homes using their smartphones.

Integrating artificial intelligence in banking and finance services will further enhance consumer experience and increase the level of convenience for users. AI technology reduces the time taken to record Know Your Customer (KYC) information and eliminates errors. Additionally, new products and financial offers can be released on time.

Eligibility for cases such as applying for a personal loan or credit gets automated using AI, which means clients can eliminate the hassle of going through the entire process manually. In addition, AI-based software can reduce approval times for facilities such as loan disbursement.

AI banking also helps to accurately capture client information to set up accounts without any error, ensuring a smooth experience for the customers.



ADVANTAGES OF AI IN THE BANKING INDUSTRY

The adoption of AI-based technologies in the banking industry has many advantages, including:

Improved Efficiency

AI can automate many routine and mundane tasks, freeing up employees to focus on more complex and value-added tasks.

Enhanced Customer Experience

AI-powered chatbots and virtual assistants can provide personalized and immediate assistance, improving the overall experience.

Better Risk Management

AI can help banks identify potential risks and frauds more accurately and quickly, reducing the risks themselves and piling costs associated with that kind of incident.

Cost Savings

By automating tasks and improving efficiency, AI can simply help banks reduce costs and increase profitability.

CHALLENGES AND LIMITATIONS OF AI IN THE BANKING INDUSTRY

Data Quality and Availability

The accuracy and overall completeness of data are crucial for AI to work effectively. Banks need to ensure that they have the right data and that they are managing them properly.

Technical Expertise

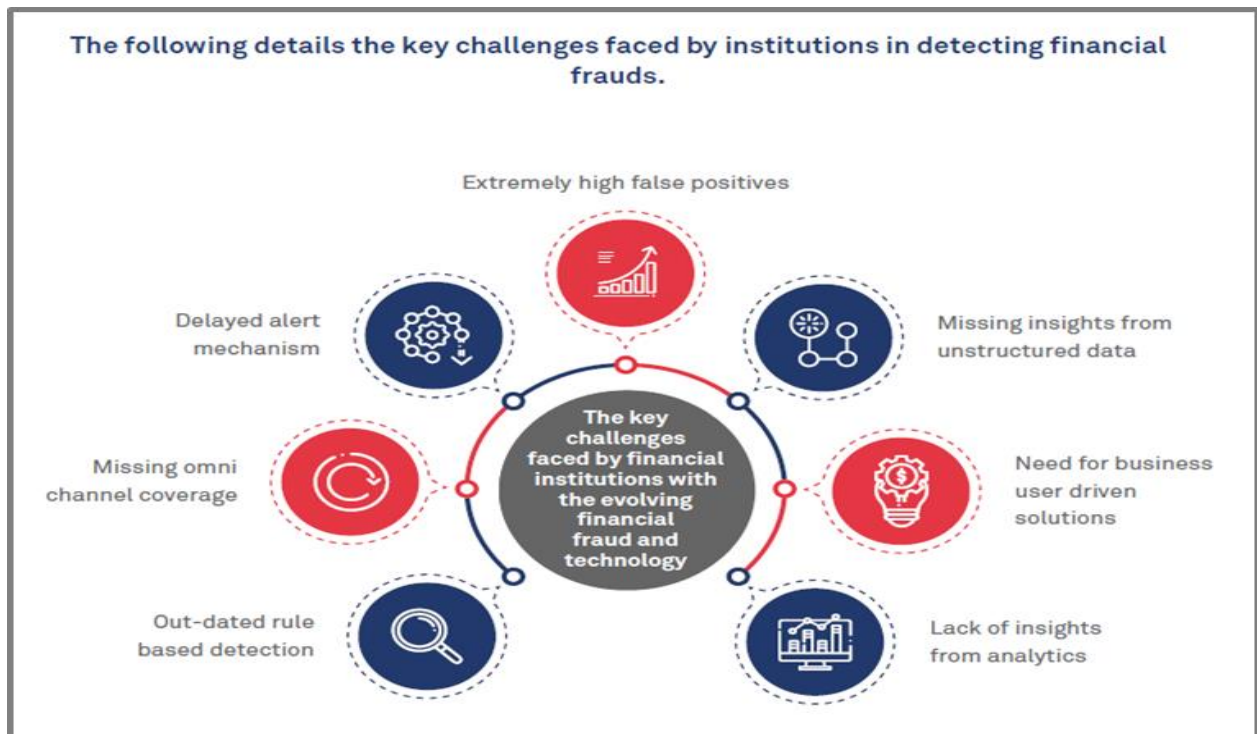
The implementation and management of AI-based technologies require specialized skills and knowledge. Banks need to invest in training and hiring experts to manage these systems, which can often cost a lot.

Privacy and Security Concerns

Banks need to ensure that customer data is always protected and that AI systems are not vulnerable to hacking or some other cybersecurity threats. Although technology is always developing in this regard, it is not always easy to keep everything safe from fraud.

THE FUTURE OF AI WITHIN THE BANKING INDUSTRY

The adoption of AI in the banking industry has already brought tremendous benefits. However, the ability of AI in banking is far from absolutely found out, and the destiny opportunities are even extra interesting. As AI generation maintains to adapt and enhance, it will rework banking operations in new and unexpected approaches. Overall, banks that put money into AI will truly have a aggressive benefit in the future. They could be able to provide greater personalized offerings, make better choices, and boom performance and profitability. So, it is important that banks keep to discover and test with AI to stay in advance of the curve inside the swiftly evolving virtual landscape of banking.



CONCLUSIONS

This looks at gives realistic implications and suggestions to banking management, policymakers, government, and technological regulatory our bodies. The outcomes of this look at can assist the banking control to update and revise their marketing strategy of building or increasing the consider of clients, which helps them to conquer the hazard of the use of digital technology at the same time as making transactions. Furthermore, this has a look at recommends that bank managements and generation regulatory authorities take the desired moves to improve safety and safety measures that assure improved customer support to boom the reliability and appeal of AI in banking service.

Some of the factors of this observe want in addition studies. This has a look at become confined to 5 Asian international locations. Further research can be conducted on other Asian and European nations and compare results by reading the

perspective of customers regarding artificial intelligence. In this examine, best the banking area was targeted. In the future, other economic sectors can also be considered for similarly have a look at. From a methodological viewpoint, this examine relies upon on a survey to attain self-said data. Such records may not be unique. In the future, to boom accuracy, its miles suggested that researchers increase the sample size and adopt different techniques of information series, consisting of area experiments. In this examine, because of time constraints, mediation and moderation were skipped; destiny studies will introduce the mediating moderating variables that have a robust effect on AI by means of updating the version. Once AI era has been extensively included into the commercial enterprise surroundings, the findings of this examine may range over the years. Therefore, greater research is needed to determine the modifications in purchaser goal among early adopters and late adopters of AI within the banking industry.

REFERENCES

1. Consultants, M. Benefits of Artificial Intelligence in the Banking Sector; Millinium Consultants: Kuala Lumpur, Malaysia, 2022; Available online: <https://www.millenniumci.com/benefits-of-artificial-intelligence-in-the-banking-sector>
2. Rahman, M.; Ming, T.H.; Baigh, T.A.; Sarker, M. Adoption of artificial intelligence in banking services: An empirical analysis. *Int.J. Emerg. Mark.* 2022; ahead-of-print (15) (PDF) *Banking 4.0: Artificial Intelligence (AI) in Banking Industry & Consumer's Perspective.*
3. Dr. N. Kesavan, "Exports and Imports Stagnation in India During Covid-19- A Review" *GIS Business* (ISSN: 1430-3663 Vol-15-Issue-4-April-2020).
4. Dr. D.Paul Dhinakaran, "Customers Delight towards Service Excellence in Indian Overseas Bank Chennai" *International Journal of Business Education and Management Studies (IJBEMS)*, ISSN:2941- 9638, (Vol.3.Issue 1. 2020 (March).
5. Dr. M. Surekha, "A study on utilization and convenient of credit card" *Journal of Positive School Psychology*, <http://journalppw.com>, 2022, Vol. 6, No. 4, 5635–5645.
6. Dr.M.Rajaraj "Bus Operations of Service Quality in Tamil Nadu State Transport Corporation Limited, Kumbakonam" *Asian Journal of Management,(A and V Publication),(ISSN:0976 – 495X)*, Volume: 4, Issue: 1, May, 2013.
7. Dr.Umesh U, "Impact Of Human Resource Management (HRM)Practices On Employee Performance" *International Journal of Early Childhood Special Education (INT-JECSE)*, ISSN: 1308-5581 Vol 14, Issue 03 2022.
8. M.Rajalakshmi "Current Trends in Cryptocurrency" *Journal of Information and Computational Science*, ISSN: 1548-7741, Volume 13 Issue 3 – 2023.
9. Dr.M. Mohana Krishanan "Consumer Purchase Behavior Towards Patanjali Products in Chennai" *Infokara Research*, ISSN NO: 1021-9056, Volume 12, Issue 3, 2023.
10. Dr. Malathi, "Impact of Covid-19 on Indian Pharmaceutical Industry" *Annals of R.S.C.B.*, ISSN:1583-6258, Vol. 25, Issue 6, 2021, Pages. 11155 – 11159.
11. Dr.C. Vijai, "Mobile Banking in India: A Customer Experience Perspective" *Journal of Contemporary Issues in Business and Government* Vol. 27, No. 3, 2021, P-ISSN: 2204-1990; E-ISSN: 1323-6903.
12. D.Paul Dhinakaran *Community Relations of Tamilnadu State Transport Corporation Ltd, International Journal of Research and Analytical ...*, 2019
13. Maneesh P, "Barriers to Healthcare for Sri Lankan Tamil Refugees in Tamil Nadu, India" *Turkish Journal of Computer and Mathematics Education*, Vol.12 No.12 (2021), 4075-4083.
14. B. Lakshmi, "Rural Entrepreneurship in India: An Overview" *Eur. Chem. Bull.* 2023,12(Special Issue 4), 1180-1187.
15. Dr.C. Paramasivan "Perceptions On Banking Service in Rural India: An Empirical Study" *Eur. Chem. Bull.* 2023,12(Special Issue 4), 1188-1201
16. Dr G.S. Jayesh "Virtual Reality and Augmented Reality Applications: A Literature Review" *A Journal for New Zealand Herpetology*, ISSN NO: 2230-5807, Vol 12 Issue 02 2023.

17. Dr.S. Umamaheswari, "Role of Artificial Intelligence in The Banking Sector" *Journal of Survey in Fisheries Sciences* 10(4S) 2841-2849, 2023.
18. S Kalaiselvi "Green Marketing: A Study of Consumers Attitude towards Eco-Friendly Products in Thiruvallur District" *Annals of the Romanian Society for Cell Biology*. 2021/4/15.
19. Dr. D.Paul Dhinakaran, "Impact of Fintech on the Profitability of Public and Private Banks in India" *Annals of the Romanian Society for Cell Biology*, 2021
20. Dr. Yabesh Abraham Durairaj Isravel, "Analysis of Ethical Aspects Among Bank Employees with Relation to Job Stratification Level" *Eur. Chem. Bull.* 2023, 12(Special Issue 4), 3970-3976.
21. Dr. Sajjan M. George "Stress Management Among Employees in Life Insurance Corporation of India" *Eur. Chem. Bull.* 2023, 12(Special Issue 4), 4031-4045.
22. Dr. Rohit Markan "E-Recruitment: An Exploratory Research Study of Paradigm Shift in Recruitment Process" *Eur. Chem. Bull.* 2023, 12(Special Issue 4), 4005-4013
23. Mogaji, E.; Balakrishnan, J.; Nwoba, A.C.; Nguyen, N.P. Emerging-market consumers' interactions with banking chatbots. *Telemat.Inform.* 2021, 65, 101711.
24. Huang, S.Y.; Lee, C.-J. Predicting continuance intention to fintech chatbot. *Comput. Hum. Behav.* 2022, 129, 107027.
25. Lin, R.-R.; Lee, J.-C. The supports provided by artificial intelligence to continuous usage intention of mobile banking: Evidence from China. *Aslib J. Inf. Manag.* 2023; ahead-of-print
26. Verma, J. Application of machine learning for fraud detection—A decision support system in the insurance sector. In *Big Data Analytics in the Insurance Market*; Emerald Publishing Limited: Bingley, UK, 2022; pp. 251–262.
27. Mogaji, E.; Nguyen, N.P. Managers' understanding of artificial intelligence in relation to marketing financial services: Insights from a cross-country study. *Int. J. Bank Mark.* 2022, 40, 1272–1298.
28. Intelligence, M. Saudi Arabia Retail Banking Market|2022-27|Industry Share, Size, Growth-Mordor Intelligence. 2021. Available online: <https://www.mordorintelligence.com/industry-reports/saudi-arabia-retail-banking-market>.
29. <https://www.analyticsinsight.net/the-use-of-ai-in-the-banking-industry/>
30. https://www.researchgate.net/profile/2/publication/349604103_Rise_of_Artificial_Intelligence_in_Healthcare_Startups_in_India/links/6037b5a9299bf1cc26ef84fb/Rise-of-Artificial-Intelligence-in-Healthcare-Startups-in-India.pdf
31. https://www.researchgate.net/profile/2/publication/340367501_The_Future_of_Robotic_Process_Automation_RPA_in_the_Banking_Sector_for_Better_Customer_Experience/links/5ea93eba299bf18b9584643c/The-Future-of-Robotic-Process-Automation-RPA-in-the-Banking-Sector-for-Better-Customer-Experience.pdf
32. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3514501
33. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3758718
34. https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=qh0VXFMAAAAJ&citation_for_view=qh0VXFMAAAAJ:bEWYMUwI8FkC

35. https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=qh0VXFMAAAAJ&cstart=20&pagesize=80&citation_for_view=qh0VXFMAAAAJ:dshw04ExmUIC

36. https://scholar.google.co.in/citations?view_op=view_citation&hl=en&user=qh0VXFMAAAAJ&pagesize=80&citation_for_view=qh0VXFMAAAAJ:UxriW0iASnsC