

## Revolutionizing Indian Banking: A Deep Dive into Consumer perspectives and AI Integration: Systematic Literature Review (SLR)

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**Abstract:** The goal of this research is to examine prior work on the subject of artificial intelligence (AI) integration in the banking sector of India using a systematic literature review (SLR). Using the PRISMA paradigm, this study examines the industry's and customers' perspectives on how artificial intelligence (AI) is transforming banking services. Chatbots, automated customer care, predictive analytics, and fraud detection are just a few examples of the AI applications that this study synthesizes from a wide variety of academic and business sources to highlight important trends, advantages, and disadvantages. The report emphasizes the increasing value of AI-driven ease, customization, and security, and how these technologies are transforming the user experience. But it does deal with important things like data privacy, ethical concerns, and the digital divide.. Through this analysis, the study aims to offer actionable insights into the successful integration of AI, fostering a more adaptive and customer-centric banking environment. Current research predominantly relies on descriptive analysis and secondary data sources. To advance the understanding of consumer perspectives and AI integration in banking, there is a pressing need for empirical research. This study would enrich the existing knowledge base by providing firsthand insights and how AI technologies are influencing consumer behavior and banking practices.

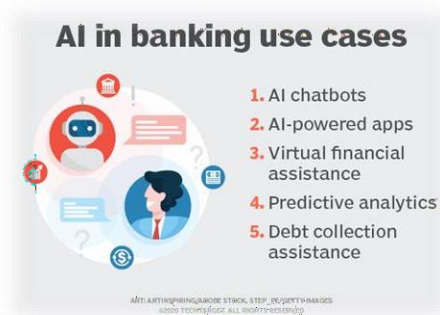
**Keywords:** Artificial Intelligence (AI), Banking sector, Consumer perspectives, Adoption, Fintech, opportunities, challenges

### I. Introduction:

An integral part of India's economy, the banking industry has changed drastically during the last several decades. The conventional wisdom about banking is changing drastically as a result of the explosion of digital services and lightning-fast technical developments.. The use of artificial intelligence has been expedited by the growth of internet banking and self-service branches. Financial institutions automate transaction processing, customer service, and the tracking of savings and spending habits through the use of machine learning and natural language processing (NLP).<sup>[1]</sup> Artificial intelligence (AI) is changing the way banks engage with and assist their clients, in addition to improving operational efficiency. The field of Artificial Intelligence is characterized by its integration of computer science with psychology, philosophy, linguistics, and other diverse discipline. The banking industry has progressed from traditional methods (Banking 1.0) to modern technology (Banking 4.0). Initially, banks used manual processes. In the 1960s, Barclays Bank introduced ATMs, marking the start of Banking 2.0. This era saw the use of automated services for better customer experience. From 2017, Banking 4.0 emerged with AI technologies. This phase features lower data processing costs, better storage, and faster connectivity. These advancements help banks remain competitive and innovative. (Noreen & et.al, 2023)<sup>[2]</sup> To better serve their customers, banks are implementing big data analytics driven by artificial intelligence and machine learning. Ai technology aids financial institutions in comprehending client habits and inclinations, which is crucial because client demands propel the service sector. <sup>[3]</sup> Voice assistants, biometrics, anti-fraud monitoring, legal compliance procedures, and smart contracts for credit underwriting are just a few examples of the many ways AI is changing the banking industry. (Digalaki, 2022).<sup>[4]</sup> The use of AI to improve workplace cognitive computing has been made possible by recent technical advancements. Incorporating algorithms into programs that bolster business operations is what this entails. (Tarafdar et al., 2019). <sup>[5]</sup> Recent years have seen the practical and productive use of AI technology. Regardless, many C-suite executives lack knowledge on how to strategically integrate AI into their companies. <sup>[6]</sup> Eighty-five percent of CEOs think AI is critical for maintaining a competitive advantage. But because they don't know enough about how to deploy AI in their companies, just 39% have a plan on how to use AI strategically. (chintalapati & pandey.,2022)<sup>[7]</sup>. AI, or Artificial Intelligence, involves creating machines capable of performing

intelligent tasks similar to humans. AI enables machines to carry out automated tasks using intelligence. The concept of AI includes two main components: Automation & Intelligence.(Vijai,2019)<sup>[8]</sup>. AI's primary uses in banking, such as AI-powered customer service, real-time fraud prevention, and innovative risk management strategies, which are particularly appealing to those focused on disrupting the industry.(Lee & chen, 2022).<sup>[9]</sup> Artificial Intelligence offers significant advantages in the financial sector. Research shows that AI in banking and financial services effectively meets consumer needs. Consumers are well-informed about AI applications in these sectors, with high adoption rates observed in banking applications, KYC/AML, chatbots, and security compliance..(Geetha,2021).<sup>[10]</sup> In order to take advantage of possibilities and implement sustainable practices, several banks and financial institutions are utilizing artificial intelligence. Artificial intelligence is giving these organizations a leg up by revolutionizing their operations, making them more efficient, and encouraging expansion. (Gopalakrishnan, 2020) <sup>[11]</sup>. Chatbots powered by artificial intelligence don't always live up to customers' ever-changing expectations. In certain cases, customers might not be satisfied with the way AI chatbots handle their demands. (Elizabeth.,Manser, 2021).<sup>[12]</sup>. Their company plans and operations need to include AI. Specifically, the essay looks at the banking and financial services industries to see how their AI environment is changing. Fintech and AI are actively working together to improve customer service by evaluating customers' credit ratings using their digital footprint. (Hwang & kim, 2021)<sup>[13]</sup>. in the banking industry of Ecuador, the interplay between customer perception elements and AI-driven customer experiences Five aspects were examined by the researchers to determine how customers felt: customization, trust, contentment, loyalty, and ease of use. (Tulcanaza, 2023)<sup>[14]</sup>. Focusing on customer attitudes and loyalty towards technology adoption, the research investigates how AI is impacting banking development. Customers are more worried about their privacy. (Ryzhkova, 2020) <sup>[15]</sup>. The banking sector's client experience has seen revolutionary changes due to fintech. Trust, commitment, personalization, usefulness, vulnerability, simplicity, and service quality are the study's discovered factors. (Arora, 2023)<sup>[16]</sup>. the study investigates how artificial intelligence (AI) impacts credit score assessment processes in banks and other financial institutions. These regulations form the basis for a new era of financial regulation that includes certifying AI algorithms and data used by banks. (Sadok, 2022) <sup>[17]</sup>. The research highlights three key areas— Strategy, Operations, and Customer Experience—that the literature explores regarding AI's impact on banking.

Additionally, the study outlines a structured consumer credit solution implementation plan (Service Blueprint) that outlines the customer journey, front-end operations, behind-the-scenes processes, and support procedures in banks.(Fares, 2022) .<sup>[18]</sup>.(Swant & et al.,2023)<sup>[19]</sup> Following is represent of AI use cases in banking and finance.



Source: [techtraget.com](http://techtraget.com)

Here, we methodically examine historical and present AI usage in banking literature to comprehend its evolution within the sector. We propose a service framework and identify future research opportunities. While previous systematic literature reviews have explored AI in banking, they often lacked sufficient scope or depth, particularly within specific this industry. In contrast, our study aims to distinguish itself by focusing specifically on the banking sector and what consumer perspectives and AI integration journey conducting a thorough analysis using systematic review approach. In this context, our purpose is to explore the following research questions...

1. How can AI integration revolutionize banking services to meet evolving consumer needs in India?
2. What are the critical factors influencing consumer acceptance of AI-driven banking technologies in India?
3. What are the key challenges and opportunities of implementing AI in Indian banking?

## II. Background of the study:

While systematic literature reviews (SLRs) in the broader finance domain have contributed to the body of knowledge, they have primarily focused on summarizing or defining trends and applications of Artificial Intelligence. However, there is no specific compilation of research dedicated to banking. Researchers would benefit from an in-depth discussion on the implications of AI implementation, as well as the specific challenges and opportunities for advancement in this area, and also discussed about adoption ways that given the scarcity of previous comprehensive research on AI specifically in banking. Review-based studies can assist by consolidating existing knowledge and identifying key areas in need of significant academic effort. Understanding the customer's point of view is crucial due to the changing nature of their expectations and interactions with financial services brought about by the fast expansion of AI in the industry. This study aims to uncover important trends, client views, and prospects related to AI integration in banking by methodically evaluating current literature. The ultimate goal of the results is to educate politicians, banking experts, and tech developers so that technological innovation in Indian banking may be more focused on the consumer. This work adds to our knowledge of AI in banking in two major areas, expanding upon prior systematic literature reviews (SLRs). Firstly, it presents a thematically organized, state-of-the-art classification of earlier research, highlighting their potential applications, limitations, and recommendations. Secondly, based on the SLR findings, we propose a methodology for synthesizing data that identifies potential gaps requiring academic focus to advance the current knowledge base.

## III. Research Objectives and Aim of Study:

*Research objectives* aims pursued to achieve this contribution are...

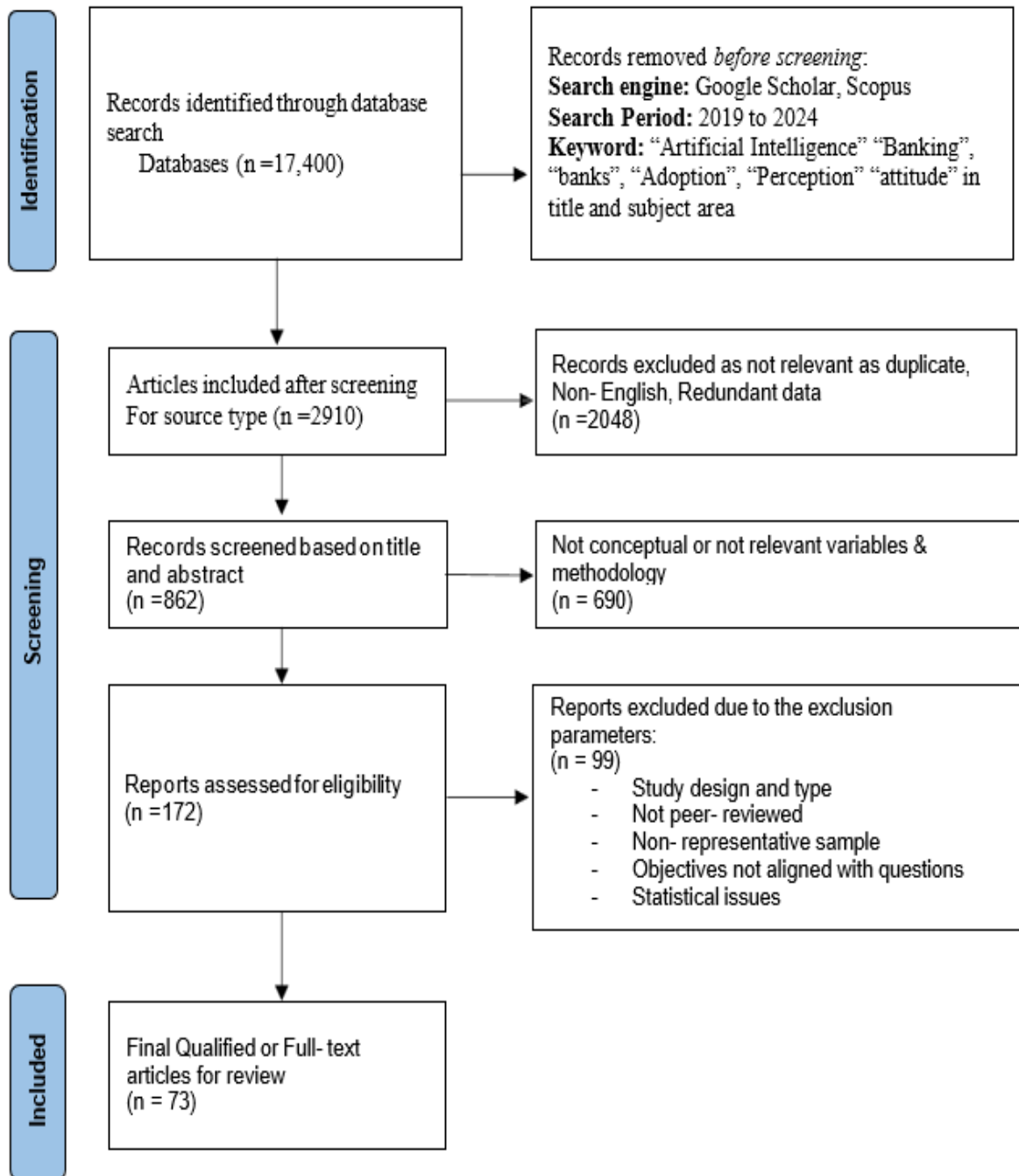
- To assess the current state of AI Integration in Indian banking through a systematic Literature Review.
- To evaluate consumer perspective of AI-driven banking services in India.
- To identify barriers to AI adoption in Indian banking and propose mitigation strategies.

## IV. Research Methodology:

The present study performs a systematic literature review (SLR) following the protocols established in prior exemplary research. We utilized Scopus, Google Scholar and emerald insights to search for relevant terms, as these databases index high-quality articles and are easily accessible to researchers. The final selection of papers was based on citation counts, which indicate the quality of individual works. The authors chose these databases for their comprehensive coverage as well.. In order to maintain order and ensure that data was properly processed throughout the many stages of the systematic literature review (SLR), the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed in this case. This study employed a three-phase methodology involving literature identification, screening, included as an analysis. The final compilation of qualified studies was achieved through consensus decision-making by the authors. This method was selected for its methodological rigor, ensuring reproducibility and minimizing bias. *Google Scholar* was the primary electronic database utilized for locating research papers. A thorough search utilizing the following keyword combinations was used in the first collection of academic works: ("Artificial Intelligence" or AI) and (Banks or Banking & Fintech). The conventional banking institutions were targeted by using the terms "banks" or "banking" to avoid fintech and other non-banking financial firms. Journal articles and conference proceedings published between 2019 and 2024 were the only ones included in the search. In order to keep things current, we only looked at research that were published within the last five years. There were 17,400 items found at first. All subjects unrelated to banking were subsequently discarded. Physics, Medicine, Environmental Science, Biochemistry, Genetics, Chemical Engineering, Health Professions, Pharmacology, Pharmaceuticals, Nursing, Dentistry, and Microbiology were among the unrelated subjects that were eliminated throughout the refining process. After going through this procedure, 2,910 articles were left out, representing a wide range of fields and topics.

After that the initial dataset of 2,910 articles sourced from *SCOPUS*, Springer, ProQuest, underwent manual scrutiny based on their titles and abstracts to align with the research objectives. A comprehensive evaluation reduced the original pool to 862 articles after applying exclusion criteria and selecting according to preset standards for journals, book series, conference proceedings, and trade publications. After that, they exchanged notes and came to a mutual agreement on 172 eligible pieces. The articles were carefully reviewed to make sure they related to the study topics. Some of the criteria used to exclude them were reviews, papers with non-English names, research-in-progress, conference papers, and book

chapters. We ensured accurate separation between relevant and irrelevant research by using validity throughout the screening and eligibility steps to boost dependability. To facilitate analysis, each manuscript was assigned a unique identifier after article extraction. The data was structured according to many criteria, such as year, author, publications, most citations, and keywords utilized. Ultimately, this rigorous process culminated in the final selection of 73 articles deemed suitable for the systematic literature review.



Source: Data on the selection process of articles (format source—PRISMA)

#### IV. Assessment standards:

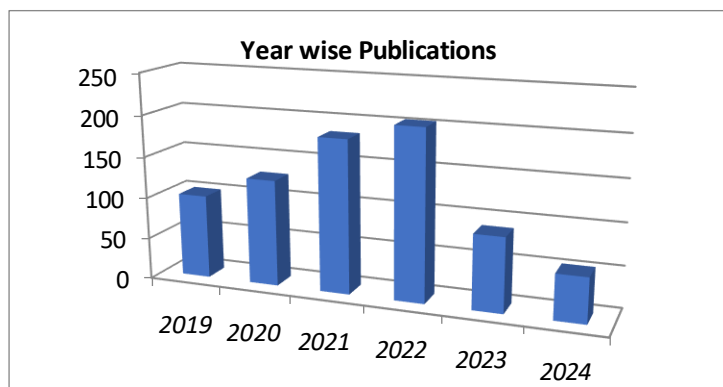
To guarantee that the studies chosen for a review fulfill the specified research goals, assessment standards are an

essential component. Eliminating bias and validating the conclusion requires a thorough examination of the research' scientific and/or empirical soundness. The following checklist was used in the quality assessment:

- Does the study clearly outline its aim(s) and/or objectives?
- Does the study provide a clear and justified description of the research methods used?
- Are the findings of the study clearly displayed?

**“Table no. 1 Authors and Titles with most citations (2019 to 2023)**

Authors	Citations	year	Paper/ articles name
D.Belanche, C.Flavián	639	2019	Artificial Intelligence in FinTech: understanding robo-advisors adoption among customers
M Jünger, M Mietzner	389	2020	Banking goes digital: The adoption of FinTech & AI services by German households
J. Trivedi	312	2019	Examining customer experience of using Chatbots and its impact on brand love: The moderating role of perceived risk
M Jakšič, M Marinč	287	2019	Relationship banking and information technology: The role of artificial intelligence and FinTech
Y Xu, CH Shieh, P van Esch	233	2020	AI customer service: task complexity, problem- solving ability, and usage intention in banking
F Königstorfer, S Thalmann	223	2020	Applications of Artificial Intelligence in commercial banks–A research agenda for behavioral finance
EH Manser Payne, J Peltier, VA Barger	212	2021	Enhancing the value co-creation process: artificial intelligence and mobile banking service platforms
BA Eren	207	2021	Determinants of customer satisfaction in chatbot use: evidence from a banking application in Turkey
L Wewege, J Lee, MC Thomsett	204	2020	Disruptions and digital banking trends – adopting AI
OA Gansser, CS Reich	194	2021	A new acceptance model for artificial intelligence with extensions to UTAUT2: An empirical study in three segments of application
A Ashta, H Herrmann	192	2021	Artificial intelligence and fintech: An overview of opportunities and risks for banking, investments, and microfinance
AL Ostrom, D Fotheringham, MJ Bitner	190	2019	Customer acceptance of AI in service encounters: understanding antecedents and consequences
C Flavian, A Rueda, D.Belanche	189	2022	Intention to use analytical AI in services – the effect of technology readiness and awareness
EH Manser Payne, AJ Dahl, J Peltier	175	2021	Digital servitization value co-creation framework for AI services: a research agenda for digital transformation in financial service ecosystems.
E Mogaji, Balakrishnan, AC Nwoba	158	2021	Emerging-market consumers' interactions with banking Chatbots
DM Nguyen, YTH Chiu, HD Le	150	2021	Determinants of continuance intention towards banks' Chatbot services in Vietnam: A necessity for sustainable development
DN Kaur, SL Sahdev, DM Sharma	137	2020	Banking 4.0:'the influence of artificial intelligence on the banking industry & how AI is changing the face of modern day banks'
M Rahman, TH Ming, TA Baigh	133	2023	Adoption of AI in banking services: an empirical analysis
JK Hentzen, Hoffmann, R Dolan...	123	2022	AI in customer -facing financial services: a systematic Literature review and agenda for future research



**Figure: 1 Year wise publications (2019 to 2024)**

Research into AI adoption & perception as well as numerous studies related with AI in the banking sector has been steadily increasing. In 2019, 101 studies were qualified, in 2020 – 128 studies, in 2021 – 184 studies, in 2022 – 204 studies, 2023- 89 studies, and 2024 – 54 studies were qualified. While early research focused on Chatbots, recent studies have expanded to include fraud detection, customer perception, technology adoption, etc (Lazo, 2023; kalyani et al., 2023; Ghandour, 2021)

#### **AI integration in Indian Banking:**

*Q- 1: How can AI integration revolutionize banking services to meet evolving consumer needs in India?*

(Bharti, Prasad, Sudha, & Kumari, 2023), (Belanche, Casaló, & Flavián, 2019), (J. Trivedi, 2019), (L Wewege, J Lee, MC Thomsett, 2020), (Tiwari & saxsena, 2021) identified that the capabilities of AI in customer service have evolved to a stage where it can foresee customer requirements and suggest appropriate products. This kind of prediction enables AI to analyze large data sets in order to deliver a personalized and anticipatory service experience. In recent years, artificial intelligence (AI) has revolutionized the banking industry in India by radically improving the customer service they provide.<sup>[20]</sup> *Enhancing Fraud Detection:* When it comes to preventing and detecting fraud, the use of AI has completely transformed the way Indian banks operate. Unlike the antiquated and sluggish methods used in the past, AI allows for proactive and real-time surveillance of any fraudulent actions.<sup>[21]</sup> *Optimizing Risk Management:* When it comes to managing risk, Indian banks are starting to use AI more and more. Financial institutions may foresee possible dangers and take precautions to lessen their impact by using predictive analytics. In order to get a more complete picture of a borrower's creditworthiness, AI algorithms evaluate credit risk by examining many data points. This not only aids in better decision-making but also ensures regulatory compliance, thereby safeguarding the bank's assets and reputation.<sup>[22]</sup> *AI-Powered Customer Support:* The deployment of AI-powered Chatbots in Indian banking has set new benchmarks in customer support. Around the clock, these smart virtual assistants respond to consumer questions and help them have smooth encounters..<sup>[23]</sup> *Predictive Analytics for Strategic Decisions:* The use of AI-powered predictive analytics is revolutionizing the way Indian banks make long-term strategic decisions. The ability of AI algorithms to analyze past data and spot trends allows them to forecast market moves and consumer behaviors..<sup>[24]</sup> *Revolutionizing Credit Scoring:* By offering a more precise and thorough evaluation of borrowers, AI is transforming the credit scoring procedure in Indian banking. Instead of using a small subset of available data, AI can sift through mountains of information, both organized and unstructured, including user behaviour on social media and other websites.<sup>[25]</sup> *AI in Wealth Management:* "Wealth management in Indian banking is undergoing a transformation with the integration of AI. Advanced algorithms analyze market trends, economic indicators, and individual risk profiles to provide personalized investment advice. AI-powered robo-advisors offer clients sophisticated portfolio management services, helping them achieve their financial goals with greater precision and efficiency."<sup>[26]</sup>

**Customer – related services:** (Elrefai et al., 2021; ; Wicaksono and Zahra, 2022, (Belanche et al., 2019;) Artificial Intelligence has revolutionized customer-oriented services in the banking sector. Banks now offer highly personalized financial advice by analyzing individual customer data and behavior patterns. AI-driven systems can monitor transactions in real-time, detecting and alerting customers to potential fraudulent activities instantly. Additionally, predictive customer support, powered by AI, anticipates customer inquiries and offers solutions proactively, enhancing the overall banking experience.<sup>[27]</sup> AI also enhances security measures through sophisticated fraud detection algorithms that monitor and analyze transactions for suspicious activities. Furthermore, AI-powered virtual assistants are available 24/7, offering personalized support and quick resolutions to customer queries.<sup>[28]</sup> The integration of AI in banking has significantly improved customer-centric services. Banks now use AI to offer personalized investment recommendations, which are based on comprehensive analysis of customer financial data and market trends..<sup>[29]</sup> Banks may now provide their clients more efficient and tailored service thanks to AI. Financial institutions may now provide consumers with tailored investment recommendations by leveraging AI. In order to keep client accounts secure, cutting-edge AI algorithms keep a constant eye on all transactions. This allows for the real-time identification of fraudulent activity. In addition, Chatbots and other AI-powered customer care systems provide immediate, tailored answers to consumer questions, elevating the banking experience as a whole. <sup>[30]</sup> The usage of AI in banking has resulted in the creation of efficient and customer-centric services. Now, clients may get investing and financial advice from banks that is unique to their needs, objectives, and risk tolerance thanks to AI.<sup>[31]</sup> A number of operational activities have been profoundly affected by the introduction of AI into the banking industry. Among these tasks are marketing, advertising, back-office operations, data analytics, credit and risk evaluation, fraud detection, and customer relationship management (CRM).<sup>[32]</sup> From the customer's perspective, the most prominent application of AI is in enhancing customer interaction through marketing channels, particularly via chatbots and robo-advisors. These AI tools are extensively used in customer service, CRM, and mobile banking apps. <sup>[33]</sup> Initially adopted by Bank of America, chatbots serve as interfaces that respond to customer inquiries through text or voice <sup>[34]</sup>

Q- 2. “What are the critical factors influencing consumer acceptance of AI-driven banking technologies in India?”

**“Table no. 2 Key Factors Influencing AI Adoption in Banking: Authors and Year**

Authors	year	Brief description
S Tshewang	2024	data security and privacy, a user-centric strategy, privacy, and regulatory compliance
D Uddeniye Gedera, NB Herath	2024	security, accuracy, efficiency
LD Oyenyi, Ugochukwu, NZ Mhlongo	2024	Ethical and privacy concern,
Beenish Shameem; Pranav Kumar; Anu Vij; Mohit Vij; Sultan Al Shehri Vij; Haitham M. Alzo	2024	perceived utility, perceived ease of use, customer awareness, regulatory environment
L. Garekwe, S. J. Ferreira-Schenk, Zandri Dickason-Koekemoer	2024	Inaccessibility to technological tools, convenience, safety & security, Trust & reliability. Customer service quality, responsiveness.
P Yadav, P Gupta, Rai, N Naik, K Kasipandian	2024	Behavioral intention, effort expectancy, performance expectancy, social influence, and Trust.
B Zarkesh	2023	Trust and AI –driven pricing strategies
R Kumar, N Mishra, A Rai	2023	Awareness level, efficiency, trust, social influence, satisfaction of technology, acceptability
K.Sultan	2023	Trust in AI, perceived risk, perceived benefits of AI adoption, and trust

M Rahman, TH Ming, TA 2023 perceived usefulness, perceived risk, perceived trust, awareness of technology, intention to adopt of AI technologies in banking  
Baigh, M Sarker  
SV Hanji, N Navalgund, 2022 Trust, anthropomorphism, perceived privacy risk, performance  
BG Katageri, SS Hanji, expectancy, effort expectancy, hedonic gratification, Security  
RB Tapashetti  
B Deepthi, P Gupta, P Rai, 2022 Customer satisfaction, AI knowledge among employees, data security issues and third-party tie-ups on AI technology implementation.  
H Arora  
Venkata Manoj Tatikond, 2022 Protection data privacy & security, Ethical, Inadequacies of technology, Kamala Venigandla and Navya Vemuri  
DB Nashold Jr 2020 Technology's perceived usefulness and perceived ease of use, trust.  
Cheolho Yoon & Dongsup 2020 Perceived usefulness is impacted by factors such as compatibility, relative advantage, complexity, image, trialability, perceived critical mass, personal innovativeness, and computer self-efficacy. Perceived enjoyment is impacted by image, trialability, perceived critical mass, personal innovativeness, and computer self-efficacy.  
Lim  
Belanche, D., Casaló, L.V. 2019 Perceived usefulness, attitude toward technology, subjective norms and Flavián, C.

Q- 3. What are the critical factors (Barriers) influencing consumer acceptance of AI-driven banking technologies in India?"

The systematic literature review (SLR) uncovered various insights regarding the potential and obstacles associated with AI within the banking industry. Table 3 present an overview of the SLR results, categorized by key themes identified in the analyzed articles. The research employed diverse terminologies to depict AI opportunities and challenges. Consequently, these terminologies were standardized to ensure consistency and streamline the analysis.

**Table no. 3 key challenges and opportunities of implementing AI in banking**

Authors	year	Key challenges (barriers) & opportunities
SR Addula, Meduri, GS Nadella, H Gonaygunta	K 2024	Privacy challenges, encryption protocols, access controls, and data anonymization, regulatory compliance.
AK Mishra, MO Arowolo	AK Tyagi, 2024	In addition to posing problems with legal compliance, ethical data usage, and guaranteeing openness and responsibility, natural language processing (NLP) and reinforcement learning will transform investment strategies, customer experience, risk management, fraud detection, and the use of consumer data.
I Hamadou, H Hamadou, MS Jallow	A Yumna, 2024	Problems with installation expenses, cyber security hazards, ethical considerations, consumer suggestions, and the customer experience are among the many benefits of automation.
PS Chougule, Dudekula	CS 2024	Potential risk, customer retention, customer engagement, & challenges that transparency, & lack of awareness
B. Dhashanamoorthi	2023	Processes in operations, better customer service, reducing risks, increasing productivity, and overcoming obstacles such as data accessibility and quality, compliance with regulations and ethical guidelines, cultural and organizational readiness, and system compatibility.
AS Mithra, Duddukuru	VC 2023	Issues with data privacy and security, ethics, and the necessity of strong regulation, as well as with improving operational efficiency, the customer experience, and the ability to identify fraud and analyze risks more accurately.



C Maple, L Szpruch, G Epiphaniou, K Staykova, Garima Kaneria	2023	Data privacy and security; improvements to customer service; detection of fraud; management of risks; evaluations of creditworthiness; high- frequency trading; openness, interpretability, justice, accountability, and trustworthiness.
A Ashta, H Herrmann	2022	Automatic banking, 24*7 & 365 days accessibility,
A Ghandour	2021	Consolidations and takeovers among financial institutions and wealth management firms as they navigate the challenges of volatility, uncertainty, complexity, and ambiguity.
A Ghandour	2021	Digital financial inclusion is progressing, there are opportunities for smart wallets, better decision-making and problem-solving, more automated repetitive procedures, happier and more loyal customers, and stronger cyber and transactional security. Problems with data availability, privacy invasions, loss of creativity and adaptability, strict operational and implementation demands, digital divide, problems with user acceptance and job displacement, problems with aligning AI with business strategies, and problems with emotional and personalized service erosion are among the challenges.
R Ebrahim, Kumaraswamy, Abdulla	S 2021	Security, technological, regulatory, financial, and reputational risks; minimization of risk; regulations; human capital employment; cost- effective and efficient services; customized customer service; high-level data security; digital banking experience;
D Zhao, W Zhang	2021	Increase retail service level, customer experience, & challenges that privacy & security
X Wittmann, F Lutfiju	2021	Process complexity, greater maintenance effort, increased regulatory requirements
F Königstorfer, Thalmann	S 2020	Minimize lending losses, payment processing security, automate compliance tasks, leveraging technological benefits, transparency, maintaining privacy, and providing appropriate documentation.
S Ranjan, DR Gupta, DA Gupta	2020	Customer support, risk management, cyber security, cognitive recommendations, Regulatory Noncompliance Risk, Ethical Risks of AI
S. Subudhi	2019	Digital banking branches, smarter Chatbots, personalized services, availability of correct data, language barrier, data privacy and skilled manpower, fear of unemployment, resistance to change
K Kochhar, H Purohit, R Chutani	2019	Reduce cost, mitigate risk, increase revenue, customer satisfaction, credit decisions, fraud detection, leakage & misuse of data, job loss
MS Caron	2019	Stringent regulations, voluntary codes of conduct, transparency, legal issues, trust, privacy & human rights

## V. Discussion:

In this SLR, we looked at how AI is changing the banking industry and how banks are using the technology. The main difficulties and potential benefits that customers and consumers encountered when using AI in banking have also been highlighted in this SLR. The game-changing capabilities of AI are having an effect on a wide range of financial services. This encompasses a wide range of functions, including as advertising, sales, accounting, customer support, detecting fraud, anti-money laundering programs, security, product development, governance compliance, and physical security. <sup>[35]</sup> (Lazo, & et al, 2023). Despite these developments, the industry still faces a number of challenges that can make it harder to implement and use AI effectively. Concerns about privacy, high implementation costs, inequity, skill obsolescence, limited innovation and flexibility, and probable employee disinterest are all examples of these challenges. <sup>[36]</sup> (Sawant & et al., 2023). The banking sector faces potential hurdles such as employee apathy, the obsolescence of certain skills, a reduction in creativity and adaptability, concerns over privacy breaches, high implementation costs, and increased inequality. Banks are increasingly leveraging advanced technologies to enhance customer interactions and service delivery <sup>[37]</sup>. (Meganathan & Nagaraj, 2021). By employing Chatbots and robots, banks can offer a seamless and pleasant customer experience. These AI tools not only resolve queries promptly but also contribute to customer satisfaction by being available round the clock. <sup>[38]</sup> (Singh, prida, & shekhar, 2024). Their

familiarity and comfort with technology make them more adaptable to interacting with "faceless" AI systems compared to older generations. While AI has the potential to streamline customer service processes, its lack of human interaction poses a significant challenge for maintaining strong customer relationships.<sup>[39]</sup> By consistently adapting and improving their services based on customer feedback, these institutions can effectively retain their target customer base.<sup>[40]</sup> (Jung Chieh, 2022)

By taking over mundane and repetitive jobs, artificial intelligence systems may save workers a lot of time. Banks may save a lot of money on operating expenses by using this technology.<sup>[41]</sup> (Kaur, Sachdev, Sharma, Siddiqui, 2020). Achieving high degrees of customization and enhancing the client experience are major goals for the future of artificial intelligence in banking. Even in customer service, you can expect to see this degree of customization. Tools powered by artificial intelligence, like chatbots and virtual assistants, will soon be smarter and more engaging than they are now. With these innovations, consumers can expect a service experience that is both more interesting and more productive.<sup>[42]</sup> (Vijai, 2019). One of the main goals of implementing AI in banking operations is to improve customer service and provide more personalized experiences for customers.<sup>[43]</sup> (Kasztelnik, 2020)

#### **VI. Implication of the Research:**

The integration of artificial intelligence (AI) in Indian banking is not merely a technological upgrade but a paradigm shift poised to redefine the sector's future. As banks increasingly adopt AI-driven solutions, from Chatbots and Robo-advisors to advanced fraud detection systems, the consumer banking experience is being transformed in unprecedented ways. This systematic literature review delves deep into the consumer perspectives, uncovering how AI's promise of enhanced efficiency, personalized services, and robust security measures is reshaping customer expectations and trust. Additionally, the study's discussion can inform policymakers and regulatory bodies about the necessary frameworks and guidelines to foster a secure and customer-centric AI-driven banking environment. This paper sheds light on the revolutionary potential and critical need to control the hazards of artificial intelligence (AI) in banking by carefully reviewing previous studies. Not only will lawmakers be able to use the findings to develop legislation that strike a balance between innovation and consumer safety, but the insights will also help banks strategically use AI.

#### **VII. Conclusion:**

The integration of Artificial Intelligence (AI) in Indian banking has ushered in a paradigm shift, transforming traditional banking operations and enhancing customer experiences. This systematic literature review has revealed that both that consumer perspectives and AI integration through AI applications, from Chatbots and automated customer service to predictive analytics and fraud detection, are increasingly becoming integral to banking processes and at the same time consumers have largely responded positively to these advancements, appreciating the convenience, personalized services, and improved security AI brings. Addressing issues like data protection, ethical concerns, and the digital divide is crucial for AI to succeed in banking. To achieve sustained development and customer happiness, Indian banks must maintain a balanced strategy that incorporates technology improvements while also implementing rigorous regulatory structures. Bringing AI into Indian banking is more than just a trend; it signals a major shift in how people access and utilize these services. Our findings demonstrate that AI is revolutionizing banking through the automation of repetitive tasks, enhancement of risk management, and provision of more personalized experiences for clients. While Indian consumers have shown a growing preference for AI-driven services due to their efficiency and personalization, the evolution of AI in banking also brings forth challenges, including the need for robust data protection measures and the potential for algorithmic bias. Ethical AI practices, open communication, and constant adaptation to customer input and regulatory changes are crucial for Indian banks to maintain the beneficial results of AI integration. Indian financial institutions need to find a happy medium between being technologically innovative and being responsible if they want to reap the benefits of artificial intelligence (AI) in banking and create a banking environment that is more adaptable and focused on customers.

#### **VIII. Limitations:**

The systematic literature review (SLR) conducted reveals several key limitations that must be acknowledged. Our findings are certain by limitations in its study design. Foremost among these is the predominance of secondary data in the reviewed studies, with only one out of fourteen being based on primary research. This over-reliance on descriptive

studies might restrict the robustness of the empirical evidence and its applicability to real-world scenarios. Furthermore, the review was confined to journal articles, potentially missing out on critical insights from previous literature, such as industry reports or unpublished works, which could offer a broader perspective. Additionally, the focus on published research introduces a likelihood of publication bias, as the review predominantly reflects studies that have found positive or significant results. To enhance the comprehensiveness and validity of future reviews, it would be beneficial to integrate diverse sources of data and include a wider range of research methodologies.

#### **IX. Future Scope of the study:**

With the rapid advancement of artificial intelligence (AI), its incorporation into the Indian banking industry is anticipated to go beyond its present uses and go into unexplored realms.. Investigating the potential of AI-driven predictive analytics in forecasting market trends and customer needs could revolutionize personalized banking. The potential of AI to promote financial inclusion is another intriguing topic for further research. Banks may use AI to devise new ways to contact people in rural and isolated locations who don't have bank accounts, helping to close the financial accessibility gap. Research could also focus on the integration of AI with blockchain technology to create transparent, secure, and tamper-proof banking transactions, thereby enhancing trust and accountability.

Exploring the future landscape of AI in Indian banking unveils a plethora of unprecedented opportunities and challenges. One compelling avenue is the seamless collaboration between traditional banks and cutting-edge fintech startups. Unlike tech giants, these nimble startups possess the agility to deliver bespoke, region-specific solutions that cater to diverse customer needs.

Furthermore, addressing the talent gap in AI expertise is crucial. Future research can delve into developing comprehensive AI education and training programs, tailored to enhance the skill sets of the banking workforce. These initiatives should encompass both theoretical knowledge and practical applications, ensuring employees are adept at utilizing AI technologies effectively. Exploring partnerships with educational institutions and industry leaders to create AI-centric curricula and hands-on training modules could revolutionize talent development. Additionally, the ethical deployment of AI remains a paramount concern. Investigating frameworks for maintaining transparency, fairness, and accountability in AI algorithms is essential.

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