



# ARTIFICIAL INTELLIGENCE: A TOOL FOR ENHANCEMENT OF LENDING FACILITIES IN BANKING INSTITUTIONS

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## ABSTRACT

*More customers. Improved analysis quicker judgments. Lower risk robotic process automation and artificial intelligence are shaping the future of credit and risk management. From siri to self-driving cars, AI is at a rapid pace. Each bank around the world has to dissect numerous credit operations from its guests and prospects, individual, professionals or companies, Banks develop their standing system grounded on different parameters but utmost of them do not take benefit of the tremendous set of big data available and gathered continuously. To prize precious information, Big data analysis(BDA) and artificial intelligence lead to intriguing operations for banking industry similar as segmentation, customized services, client relationship operation, fraud recovery, credit threat assessment and in all back, middle and front office operation. This paper discusses the impact of the rapid-fire acceptance of artificial intelligence in the financial sector. Artificial intelligence is a method of making a computer or a software think intelligently like the human mind. It has a lot of influence on our lifestyle. AI provides high securities in related areas. It is an intelligent machines that work and react like humans. People are daily interact with AI but probably they are not well aware like with the help of Smartphones, Chabot's, self-driving cars, smart assistance, virtual travel booking agent, social media monitoring and many more.*

**KEY WORDS:** *Deep learning, Technology, Recognition, credit operations, moving towards digitalization*

## INTRODUCTION

Interactive web-grounded connections have nearly entirely taken over face-to-face communication. The impact of AI is broad in our day-to-day lives. All diligence has now incorporated it into their operations and advancing businesses are no exception. The fiscal deregulation led to a ocean of changes in the banking and fiscal services assiduity with the accumulating of numerous Internet-grounded fiscal and lending institutions. This in turn has led to the digitization of fiscal deals, including the entire process of lending, right from the original loan operation to the final disbursement, and all the stages after that too. The ease of applying for loans, and the vacuity of truckloads of data related to the aspirants, has led to an extravagancy of openings for advancing institutions. It is now possible to get perceptivity from this data, to make loan operation simpler, with the help of sophisticated logical tools thanks to AI. Regardless of any prediction, one component is clear AI in banking will be in addition carried out and it will go to deliver huge sales. To have higher draw shuts on how the era is covered into banking, and deposit hazard manage mainly, one have to find out several key areas of adoption.

## REVIEW OF LITERATURE

Our review of digital credit lenders revealed that numerous digital credit enterprises in particular claim to use AI algorithms for threat modeling and credit underwriting opinions. This

review is grounded on our analysis of websites, news reports and exploration reports relating to the use of AI in lending in India.

Artificial intelligence primarily based totally help for the literature assessment method entails each innovative and mechanical responsibilities, which creates thrilling possibilities for superior AI primarily based totally gear to lessen potential authors efforts for time-eating and repetitive responsibilities and to devote greater time to the innovative responsibilities that require human interpretation, intuition, and expertise. To familiarize the reader with cutting-edge information on this area, we keep in mind every step of the assessment method in turn; outlining cutting-edge AI-primarily based totally gear in addition to the capacity for AI-primarily based totally device help. Corresponding possibilities for similarly device improvement and development are mentioned withinside the following agenda. The review is in keeping with the stairs of the assessment method that templier and pare have synthesized from the methodological literature.

## OBJECTIVE OF THE STUDY

- To examine the benefits of AI in Banking Industries.
- To understand the changing dynamics of financial access using disruptive technology in banking sector.



- To study the problems faced by banks and their customers while using services based on artificial intelligence technology.

### BENEFITS OF AI IN BANKING INDUSTRY

Artificial genius has the workable to lead to huge value savings. According to study by Accenture, banks can leverage AI banking equipment to extent their transactions with the aid of two and half of instances the use of the identical headcount. Monetary offerings groups are properly positioned to take gain

of synthetic intelligence. There is no AI in banking except data. However, the monetary enterprise collects many statistics in the everyday direction of business.

The use of synthetic genius and computer getting to know for banking offerings and in the finance industry is not new. Artificial intelligence is already accountable for detecting suspicious credit scorecard activity. With identification to hire the proper science to shield its clients and mitigate its liability.



Source: screen shot from Personetics.com, featuring their purported features and benefits

**1. Streamline operations:** Automation is one of the most common uses of AI, and 55% of mortgage industry executives believe AI helps their company become more competitive.

As we mentioned in our post titled "AI and the Transformation of the Mortgage Industry", manual processing accounts for as much as 40% of the typical lending procedure. However, many redundant tasks can be eliminated through automation, allowing lenders to concentrate on more difficult cognitive tasks. As a result, you will work more effectively and produce more work.

**2. Maximize marketing benefits:** Because AI is so adept at automating processes, your marketing spend is maximized. Through social media, AI tools can be utilized to more effectively contact potential millennial and Gen z customers in a manner similar to Facebook's marketing algorithms. Large-scale personalized marketing based on user surfing preferences help to increase client conversion and retention rates. You merely need to set up one of these automated system, then relax, at least until the software alerts you to actionable insight based on ad performance. This might assist you in optimizing your marketing initiatives.

**3. Lower costs:** With automation, you can accomplish more in less time and on a large scale while reducing costs and eliminating the possibility of human error. In fact, AI can overall overhead expenses. The number of mortgage applications also increased when finance minister Rishi sunak passed a tax cut earlier this year, potentially delaying deals. Thankfully,

technology makes filing out papers easier as well. Some systems can pre-fill specific documents by gathering client data. This accelerates the application process, allowing you to complete more transactions and make payments in less time.

**4. Enriches customer experience:** AI is a virtual tool that mortgage lenders may use to offer borrowers services that are secure, swift, practical, and simple to understand. Lenders become more proactive thanks to AI, which also encourages them to continuously enhance their services and boost profit margins by informing them of potential problems early on but AI is capable of more than just automation. More sophisticated machine learning software can analyse data and draw conclusion from it, which is incredibly helpful for mortgage lenders worldwide.

**5. Reduced operational costs and risks:** As a whole lot as we experience human interaction, it has one widespread drawback. Errors are common, and they can have serious repercussions. Even when skilled employees are at the helm, the incorrect keystroke may want to expose the organization to legal responsibilities and motive irreparable reputational damage. Decision administration structures minimize this threat with the aid of growing common sense flows in information seizes and combining predictive and prescriptive methods to resolve enterprise problem.

**6. Improved Loan and Facility Evaluation:** Using deposit rankings to consider eligibility for financing regularly depends



on old-fashioned information, misclassification, and errors. However, these days there are so extra records available on line that can supply an extra practical image of the individual or commercial enterprise below evaluation. An AI-based machine can provide approval or rejection tips by using thinking about extra variables even when the party, whether or not private or business, has little documentation.

## TRANSFORMING THE FUTURE OF BANKING

Digital technology is influence nearly every industry, not just changing diligence but also changing the way businesses operates. Every industry is presently examined operations and enforcing strategies to succeed in this tech-driven world.

Currently every country is moving ahead in terms of digitalization, and this is the reason the number of guests is continuously increase in the banking sector. Now the question comes is how the banking sector can help further and further guests without adding pool charges?

It is difficult for the industries to healthy the special needs of the customers. Customers nowadays have extraordinarily excessive expectations. Nowadays, clients are digitally state-of-the-art and count on the industries to supply them with a satisfactory and satisfied consumer experience, the identical factor the additionally assume from the banking sector.

In order to deliver services like mobile banking; e-banking, and real-time money transfers, the banking industry has increased its presence in the retail, IT. In addition, telecom sectors. These cutting-edge features provide users access to banking sector money.

The likelihood of transmitting sensitive data across virtual networks has increased with the involvement of IT, telecom and retail. It occasionally results in cyber-attacks and fraud in the banking industry. This type of fraud not only damages the bank's financial standing but also undermines public confidence.

## APPLICATIONS OF AI

1. **Personalized Finance Guidance:** Artificial intelligence in finance allows customers make brief and correct monetary choices with the aid of using supplying them with the maximum up to date marketplace information. As a result, we are able to count on that AI can help clients with personalized monetary guidance.
2. **Digital wallets:** Without a doubt, the development of digital wallets has elevated the use of digital currency. Customers only need to provide their cellphone number or a one-time password (OTP) to make purchase online, which is a special function of digital wallets.
3. **Interactive voice responses system (IVRS):** An interactive voice response system is used to contact customers. This application's major goal is to provide consumers with an excellent banking experience by accurately answering their questions.

4. **Credit scoring / direct lending:** By analyzing data from a variety of standard and non-traditional data sources, artificial intelligence plays a crucial role in helping alternative lenders assess the creditworthiness of clients. This assist lender in creating creative lending programs that are supported by reliable credit scoring models, even for those people or companies with a short credit history.

5. **General purpose/ predictive analytics:** Predictive analytics and general-purpose semantic and natural language applications are two of the most prevalent use cases for AI. AI that were previously undetectable can found data patterns and correlations by traditional technology. These trends could point to underutilized cross-sell or sale opportunities, operational data measures, or even revenue-impacting variables.

6. **AI Chabot:** Chatbots are computer programmes that use chat interfaces to reproduce textual human discussion. They are a digital counterpart of the customer care agent that many banks employ. Chatbots, like their human match, are well organized, dependable, and successful in answering client questions. You may have an account with a chatbot if you require a bank to keep track of your money. It assists you in managing numerous aspects of your personal financial needs.

7. **Tracking market trends:** Banks can process huge amounts of data and forecast the most recent market movements, currencies and equities thanks to artificial intelligence in financial services. Modern machine learning methods offer investment suggestions and assist in evaluating market sentiment. AI for banking also recommends when to buy equities and issues alerts when there is a possible risk. This cutting-edge technology also helps to speed up decision-making and makes trading convenient for both banks and their clients due to its high data processing capability.

8. **Process automation:** By automating time-consuming repetitive processes, robotic process automation (RPA) algorithms improve operational efficiency and accuracy while lowering expenses. Users can now concentrate on harder tasks needing human interaction. RPA is currently being successfully used by banking organisation to speed up transactions and improve efficiency. For instance, examines documents and extracts data from them considerably more quickly than people can.

9. **Risk management:** The banking and financial sector are significantly impacted by external global variables such exchange rate fluctuations, natural disasters, and political upheaval. Making business decisions with extra caution is essential in such uncertain times. AI-driven analytics can provide a pretty accurate forecast of future events,



assisting you in remaining organized and making timely decisions.

AI also assists in identifying hazardous applications by calculating the likelihood that a client would default on a loan. By examining historical behavioral patterns and smartphone data, it forecasts this future behavior.

10. **Cybersecurity and fraud detection :** Every day, massive range of digital transactions take location as customers pay bills, withdraw money, credit checks, and do a lot grater through apps or on-line accounts. Thus, there is an growing want for the banking area to ramp up its Cybersecurity and fraud detection efforts. This is when synthetic genius in banking comes to play. AI can assist banks enhance the safety of on line finance, song the loopholes in their systems, and limit risks. AI alongside with computer gaining knowledge of can without problems pick out fraudulent things to do and alert clients as nicely as banks.

## ISSUES AND CHALLENGES

Artificial intelligence has had a startling effect on both the economy and human life. By 2030, artificial intelligence will have increased the global economy by around \$15.7 trillion. That is roughly equivalent to the current economic production of China and India, to put things in context.

AI implementation in banking is primarily driven by client demand. Accenture conducted a poll of banking customers and their ever-changing needs and discovered that 71% would prefer computer-generated customer service. While 78% of respondents would utilize automated investment support.

**1. Data Quality:** AI is a data-driven technology, as data quality affects the vaccination power of an algorithm. Lack of acceptable and believable data encumbers its applicable processing and that call for perspicacious data operating using advanced analytics and end-to-end AI modeling.

**2. Complex AI models:** A major problem with AI that it's relatively complex. AI is grounded on algorithms, and people who aren't familiar with these algorithms might find it delicate to grasp the functioning of AI-driven decision timber. This lack of understanding may lead to apprehension regarding AI among workers. For illustration, banks use simple algorithms that are grounded on direct mathematics, similar as direct/logistic retrogression. AI has failed to gain wide acceptance.

**3. AI and cyber security:** Indeed, although it may additionally experience that AI is the best result to each problem, it is a double-whetted brand, which if now not treated exactly ought to lead to indecorous judgment and safety incidents.

**4. Lack of integration:** Financial organizations continue to make substantial use of legacy systems. They are not well suited to be employed directly in AI applications due to the constraints on the volume, diversity, and velocity of data that these systems san process. Application development teams must integrate AI models into new or current applications for these firms in order for them to be useful. Still, the difficulties are indeed more

severe, If colorful suppliers are in charge of the apps. Also the maturity of web development work done for a business isn't AI friendly.

## CONCLUSION

In general, AI can ameliorate numerous aspects of banks operations, indeed, if it cannot replace bankers. It seems likely that AI'll work with mortal decision-makers rather than acting singly. And by adding effectiveness and reducing threat for banks has a significant eventuality to reduce costs for their customers. AI powered technological know-how is quicker going to change the common banking and business lending space. With the introduction of cloud-based banking-as-a-service, computing device learning, predictive analytics, IoT, and extra coming into the picture, AI-led digital lending would assist pressure built-in banking experiences for clients worldwide. Greater profitability standards customers who demand quick answers. Stricter laws and regulations. An effort at fraud workers are buried in paperwork, and worksheets. Although there isn't a button you can click to instantly solve all of these issues, the present state of credit and risk management is being ushered in by technology that enables for the lightning-fast flow of data and automated choices. 'AI is much more than a tool for marketing or a technical issue. Data optimization and data-driven management are key. AI is radically altering society.

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