

# **ARTIFICIAL INTELLIGENCE**

## **AI BASED DISCOURSE FOR BANKING INDUSTRY**

### **LITERATURE SURVEY**

**BATCH: B2-2M4E**

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# **AI BASED DISCOURSE FOR BANKING INDUSTRY**

In this project, we will be building a chatbot using Watson's assistant. This chat should have the following capabilities:

- The Bot should be able to guide a customer to create a bank account.
- The Bot should be able to answer loan queries.
- The Bot should be able to answer general banking queries.
- The Bot should be able to answer queries regarding net banking.

**1. TOPIC** : Applications of Artificial Intelligence in banking  
**AUTHORS** : Joy Dumasia  
**PUBLISHED IN** : 2021

Artificial Intelligence (AI) has been around for a long time. AI was first conceptualized in 1955 as a branch of Computer Science and focused on the science of making “intelligent machines” machines that could mimic the cognitive abilities of the human mind, such as learning and problem-solving. AI is expected to have a disruptive effect on most industry sectors, many-fold compared to what the internet did over the last couple of decades. Organizations and governments around the world are diverting billions of dollars to fund research and pilot programs of applications of AI in solving real-world problems that current technology is not capable of addressing.

Artificial Intelligence enables banks to manage record-level high-speed data to receive valuable insights. Moreover, features such as digital payments, AI bots, and biometric fraud detection systems further lead to high-quality services for a broader customer base. Artificial Intelligence comprises a broad set of technologies, including, but are not limited to, Machine Learning, Natural Language Processing, Expert Systems, Vision, Speech, Planning, Robotics, etc.

**2. TOPIC** : The impact of artificial intelligence in the banking sector & how AI is being used in 2020  
**AUTHORS** : ELENIGALAKI  
**PUBLISHED IN** : 2019

Discussions, articles, and reports about the AI opportunity across the financial services industry continue to proliferate amid considerable hype around the technology, and for good reason: The aggregate potential cost savings for banks from AI applications is estimated at \$447 billion by 2023, with the front and middle office accounting for \$416 billion of that total, per Autonomous Next research seen by Business Insider Intelligence.

Most banks (80%) are highly aware of the potential benefits presented by AI, per an OpenText survey of financial services professionals. In fact, many banks are planning to deploy solutions enabled by AI: 75% of respondents at banks with over \$100 billion in assets say they're currently implementing AI strategies, compared with 46% at banks with less than \$100 billion in assets, per a UBS Evidence Lab report seen by Business Insider Intelligence. Certain AI use cases have already gained prominence across banks' operations, with chatbots in the front office and anti-payments fraud in the middle office the most mature. Banks can use AI to transform the customer experience by enabling frictionless, 24/7 customer interactions - but AI in banking applications isn't just limited to retail banking services. The back and middle offices of investment banking and all other financial services for that matter could also benefit from AI.

**3. TOPIC** : Application of artificial intelligence for successful strategy implementation in india's banking sector  
**AUTHORS** : Bhavna Agarwal, Himanshu Agarwal  
**PUBLISHED IN** : 2019

Banks are already offering a wide variety of products and services, integrated with technology and automation, the most familiar being ATM machines all around us. Now moving to the next level in the present Industry 4.0 era, Banking sector is all set to amplify its strategy implementation by leveraging latest digital technologies so that its customers may experience swift and secure processing of transactions. This study examined the evolution, adoption, implementation and future opportunities of leveraging Artificial Intelligence (AI) for successful strategy implementation in India's banking sector. In pursuance of this study, author reviewed extensive literature, explored secondary data about the research work done on 'Artificial Intelligence in Banking Sector' to find out the current status of research as well as practical application

of AI in various aspects of banking strategies e.g. surveillance, fraud detection, ensuring compliances, credit assessment, customer service, handling monotonous voluminous tasks etc. in general and focusses on recent developments in context of India's banking sector, urging banking leadership to shift their focus proactively towards leveraging AI with an objective to bring in delight for customers.

**4. TOPIC** : Drivers of Artificial Intelligence in Banking Service Sectors

**AUTHORS** : Mohamed Hussain Thowfeek, Sabraz Nawaz Samsudeen

**PUBLISHED IN** : 2020

Artificial intelligence (AI) has been a subject of interest in the research field for the past few years. It has now been brought closer to commercial use due to recent technological advances and speedier data accessibility. Its relevance to global business models is underlined by the significant investments in it made by Internet powerhouses including Google, YouTube, Amazon and Facebook. In the banking sector where data is of substantial value, AI has been incorporated in pilot projects but its true applications have yet to see the light of day. In this study, the drivers and barriers to successful AI implementation in the banking sector is analyzed using a panel data of 28 semi-structured interviews with AI experts in the field of banking and finance. AI-oriented role models and process capabilities were revealed to be essential prior to having the trained algorithms reach the level whereby the AI applications can run devoid of human involvement and moral trepidations.

**5. TOPIC** : Artificial Intelligence in Indian banking: Challenges and opportunities

**AUTHORS** : Kul Bhushan

**PUBLISHED IN** : 2018

Artificial Intelligence (AI) is fast evolving as the go-to technology for companies across the world to personalise experience for individuals. The technology itself is getting better and smarter day by day, allowing more and newer industries to adopt the AI for various applications. Banking sector is becoming one of the first adopters of AI. And just like other segments, banks are exploring and implementing the technology in various ways. The rudimentary applications AI include bring smarter chat-bots for customer service, personalising services for individuals, and even placing an AI robot for self-service at banks. Beyond these basic applications, banks can implement the

technology for bringing in more efficiency to their back-office and even reduce fraud and security risks.

Unsurprisingly, research firms are bullish on the potential of AI in banking. According to Fintech India [report](#) by PwC in 2017, the global spending in AI applications touched \$5.1 billion, up from \$4 billion in 2015. There is a keen interest in the Indian banking sector as well.

**6. TOPIC** : Why banks need AI  
**AUTHORS** : Anjum Khurshid  
**PUBLISHED IN** : 2016

Digital disruption is redefining industries and changing the way businesses function. Every industry is assessing options and adopting ways to create value in the technology-driven world. The banking sector is witnessing groundbreaking changes: foremost being the rise in customer-centricity.

Tech-savvy customers, exposed to advanced technologies in their day-to-day lives, expect banks to deliver seamless experiences. To meet these expectations, banks have expanded their industry landscape to retail, IT and telecom to enable services like mobile banking, e-banking and real-time money transfers. While these advancements have enabled customers to avail most of the banking services at their fingertips anytime, anywhere, it has also come with a cost for the banking sector.