

LITERATURE SURVEY

AI BASED DISCOURSE FOR BANKING INDUSTRY

S. No	Title/Publisher	Authors	Description	Limitations and future scope
1	A Study Of Applications Of Artificial Intelligence In Banking And Finance Sector, IJIRMF, 2020	Dr. Lakshkaushik Dattatraya Puri	<ul style="list-style-type: none"> Banking sector is becoming one of the first adopters of AI, bringing smarter chat-bots for customer service, personalizing services for individuals, and even placing an AI robot for self-service at banks. In 2011 Jeopardi competition IBM Watson defeated humans in its own competition which brought into light such an intelligent system used in computers. Now-a-days the banking industry has started to seriously consider artificial intelligence-based solutions for resolving many traditional banking problems. AI can be used for various applications in banking such as chatbots, personalized customer service, handle risk management, compliance & Fraud detection, Voice Assisted banking Predictive analytics and wealth management for clients and so on. 	<ul style="list-style-type: none"> Robust and rapid processing needs, advent of mobile technology, data availability, and proliferation of open-source software offer AI a huge scope in the banking sector. In today's app-driven world, the banking sector eyes on leveraging with the help of mobile app development companies. AI in banking is continuing to transform the industry to provide a greater level of value to their customers, reduce risks, and increase opportunities as the financial engines of our modern economy.

2.	Voice recognition bot for internet banking, IEEE, 2022	Gomathy B; Krishna Kumar S, Mukilan R, Naveen Balaji R	<ul style="list-style-type: none"> • This banking bot is a artificial intelligence based bot for banking activities. • The bot can generate simple and basic conversations and extract knowledge from a trained dataset. • The input is received by the user either by voice or text. The received input is now predicted and it will find any match for the queries related to the predicted input, which is available in the JSON data set via ANN algorithms and finally the desired output is given to the user for the predicted input. • Transformer model is created with a Functional API that consists of encoder and decoder. The attention decoder is based on the ANN and is implemented with the framework language model. 	<ul style="list-style-type: none"> • The bot can be able to train more datasets if wanted. • It can be put on every industry for 24/7 and thus get their doubts cleared anytime anywhere.
3	Bank chat bot – An Intelligent Assistant System Using NLP and Machine Learning, IRJET, 2017	Chaitrali S. Kulkarni, Amruta U. Bhavsar, Savita R. Pingale, Prof. Satish S. Kumbhar	<ul style="list-style-type: none"> • User will interact with the system using web application. The bot controller logic contains implementation of Flask framework for handling user requests and sending answer to those queries as response. • Then, the query will be sent to Business logic and Machine learning logic. • Business logic contains pre-processing of user input query using Natural Language Processing (NLTK library) and its vectorization. • NLP will tokenize the query, remove unnecessary spaces, stop-words and then extract lemmas for each token. Then this text-format query will be converted to vectorized format using vectorization. • Using ML logic, classification algorithm will be applied to this transformed query to find the class it belongs to. • Classification algorithm will be applied based on the previous saved model executed on train data. 	<ul style="list-style-type: none"> • Intelligent answers constructed by combining not just the existing list of FAQs but also from various other sources like internet, databases and other sources of data. • Providing close suggestions.

4	Application of Chatbot for consumer perspective using Artificial Intelligence, IEEE, 2021	Abhishek Savanur, Niranjanamurthy M, Amulya M P, Dayananda P	<ul style="list-style-type: none"> • This banking bot is based on Artificial Intelligence. • Here the chatbot have been executed and tested in “Facebook Messenger”. • When clients pose an inquiry, chatbot intelligently offer several responses by giving various choices. • Chatbot gains from each discussion it has with the clients and henceforth improving the chatbot's precision. 	<ul style="list-style-type: none"> • The model should not change based on any new replies. • It does not just rephrase what people say, but indeed taught to answer things what they wanted.
5	Analysing and designing conversational banking service architecture for banking company, IEEE 2020	Emil Robert Kaburuan, Adrianus Kelvin, Jery	<ul style="list-style-type: none"> • This paper proposes a chatbot which supports voice commands. • Improves business efficiency • Improves banking services by understanding customer needs • Helps people to check balances, transfers, invoice payments, buy and sell stocks and borrow money • Uses facial and fingerprint biometrics for identification 	<ul style="list-style-type: none"> • Usage of firewalls could obstruct some organisational activities • Facial biometrics requires huge storage requirements and privacy issues
6	Conversation to Automation in Banking Through Chatbot Using Artificial Machine Intelligence Language, IEEE, 2020	Sasha Fathima Suhel, Vinod Kumar Shukla, Sonali Vyas, Ved Prakash Mishra	<ul style="list-style-type: none"> • The chatbot design in this paper offers an accurate and reliable response to any request utilizing Artificial Intelligence Markup Language (AIML) and Latent Semantic Analysis (LSA) focused on the FAQ dataset. • Using AIML, template-based and general questions will be addressed and other service-based questions will be answered using LSA. • Three types of card accounts (credit card, debit card, loan card) are given to the customers to choose from and a pop-up page shows them their account status. • Another option is given in case the customer has queries outside the given selections. If so, it then connects the user to a human for further assistance making it convenient to ask anything related to the bank and any kind of account. 	<ul style="list-style-type: none"> • The future system would be the implementation of an intelligent question management program capable of not only responding but of self-learning to improve itself in the next stages.

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