Use of Artificial Intelligence in Banking World today

There are hundreds of opportunities to leverage AI and machine learning in every line of business and function in a bank. With automated machine learning, banks large and small around the world can drive revenue growth, differentiate themselves through superior client experience, reduce operational costs while improving quality, and improve risk management effectiveness and efficiency.

AI is evolving on fast pace. Financial organizations are already using AI technologies to personalize customer service, help make decisions on creditworthiness, using natural language processing to transcribe & analyze real time and historical customers interactions (e.g., recordings), and general risk management. By 2024, banks are projected to save approximately $447 billion by developing and implementing AI applications. Some of the fine examples are below.

Addressable departments	Use-Cases: Sales, Marketing, Relationship and Product Management
Consumer Banking Retail Banking Mortgage Banking Consumer Lending Private Banking & Wealth Management	- Churn/attrition risk - Target Marketing - Target Offers - Needs-based recommendations/Relationship deepening - Value-added services/client behavior - Call Center Optimization - Prospecting & lead optimization
Commercial Banking	- Sentiment modeling
Investment Banking/Asset Management	- Data collection and analysis

AI Chat Bots

Chat bots are AI enabled conversational interfaces. This is one of the most popular cases of applying AI in banking. Bots communicate with customers on behalf of the bank without requiring large expenses. Researchers have estimated that financial institutions save four minutes for each communication that the chat bot handles.

Since customers use mobile apps to carry out monetary transactions, banks embed chat bot services in them. This makes it possible to attract users' attention and create a brand that is recognizable in the market.

For example, one of Canadian Bank has included Siri in its iOS app. Now, to send money to another card, it's enough to say something like: "Hey, Siri, send $20 to Alex!" - and confirm the transaction using Touch ID.

Thanks to AI, banks generate almost 66% more revenue from mobile banking users in comparison when customers visit branches. Banking organizations are paying close attention to emerging technology to improve their quality of services and remain competitive in the market.

Another example is the launch of the Ceba chat bot, which brought great success to the Australian Commonwealth Bank. With its help, about half a million customers were able to solve more than two hundred banking issues: activate their cards, check account balances, withdraw cash, etc.

Another example, Bank of America launched a chat bot that sends users notifications, informs them about their balances, makes recommendations for saving money, and provides updates to credit reports, and so on. This is the way the bank helps its clients to make informed decisions.

Here follows more examples on where bots can be used in Banking:

<table>
<tr><th>Inquiries</th><th colspan="3">Service Requests</th></tr>
<tr><td>Most common banking inquiries can be answered by Chatbots:
- Nearest branch location
- Nearest ATM,
- Accounts, Cards, Certificates, etc.
- Loans Terms,
- Promotions – special card or loan offers...</td><td colspan="3">Most of customer requests can be transacted by Chatbots through automating banking processes:</td></tr>
<tr><td></td><td>Service Requests:
- Statement Request/Delivery
- Cheque Book Request
- Token Request (Enable and Disable)
- Secure code/safe token profiling
- PIN/Password Reset
- Secret question Reset
- Balance Enquiry
- Transaction History
- Transaction Locator
- Account Reactivation/update request
- Virtual Card request & Issuance
- Lost or Stolen Card
- Card Block
- Account Closure
- Beneficiary Addition
- Debit/Credit card request and delivery
- etc.</td><td>Loan Services:
- Loan Request/enquiry/balance
- Loan liquidation
- Loan Repayment Alert
- Loan rescheduling/Modification
- etc.</td><td>Payment Services:
- Funds Transfer
- Bill payment
- Scheduled payment
- Monitor Recurrent Transactions
- Bill Reminder
- Cheque Confirmation/Stop
- etc.</td></tr>
</table>

Data collection and analysis
Banking institutions record millions of business interactions & transactions every day. The volume of information generated by banks is enormous, so its collection and registration turn into an overwhelming task for employees. Structuring and recording this data is impossible until there is a plan for its use. Therefore, determining the relationship between the collected data is challenging, especially when a bank has thousands of clients.

There used to be the following approach: a client came to a meeting with a bank employee who knew their name and financial history and understood what options were better to offer. But that's history now. With the wealth of data coming from countless transactions, banks are trying to implement innovative business ideas and risk management solutions.

AI-based apps collect and analyze data. This improves the user experience. With iConvo's AI tools for conversation analysis, banks can improve the customer experience by analyzing interactions in real time and providing insights into customer needs and behaviors. This enables proactive service and faster problem solving, which in turn leads to happier customers.. The information can be used for granting loans or detecting fraud. Companies that estimated their profit from Big Data analysis have reported an average increase in revenue by 8% and a reduction in costs by 10%.

Today, any line of business or function in a bank have multiple needs for predictive analytics. Business and functional heads have become more aware of the enormous potential of predictive analytics, the need for more data, better modeling capabilities, and the capacity to turn data into operational insight. All banks are realizing that they must find new ways of capturing, organizing, and making data available, and must up their game with new tools and techniques for learning from their data and embedding databased capabilities into products, services, client interactions, and operations.

Until not too long-ago data scientists & Modelers used to have to create themselves prediction models that is based on historical data and look for good predictors by trying lots of different historical models and seeing what data was the most predictive, then engineering work on these models and try and make predictions better. Those days are gone. The rise of open-source AI technologies, and new machine learning algorithms have eliminated the technological barriers of yesterday. Historical models have waned; now there are neural networks, random forests, support vector machines, and gradient boosted trees, just to name a few. Modelers can now crank through an enormous amount of data and let the computer do the hard work of finding the best predictors. The machine “learns” how to make predictions based on the data you provide.

Churn prevention - Predictive Analytics can also be used to identify those customers who are most at risk from **churn**, based on historical analysis of calls with similar customers, linked with metadata including customer segmentation. For example, a

business can retrospectively analyze interactions in order to identify where customers have defected from the bank. Typical indicators may include use of the words “unhappy” or “dissatisfied “; customers may have a larger-than-usual volume of calls into the contact center; use multiple channels in a very short space of time (if they grow impatient with one channel, customers may use another); and mention other banks’ names.

After analyzing this, and applying it to the customer base, a “propensity to defect” score may be placed against each customer, identifying those customers most at risk. Specific routing and scripting strategies may be put in place so that when the customer next calls, the chances of a high-quality customer experience using a top agent are greater and effective retention strategies are applied.

Increased regulation and compliance - The banking sector is highly regulated, and ensuring compliance is a constant challenge. iConvo's AI solution can help banks monitor and analyze customer interactions to ensure all communications comply with regulatory requirements. By automating parts of monitoring, banks can reduce the risk of regulatory compliance problems while saving time and resources.

Efficiency and cost savings - With increasing competition and squeezed margins, efficiency and cost savings are important focus areas for banks. iConvo's AI tools help identify inefficiencies in customer service processes and provide concrete insights to improve workflows. By automating routine tasks and optimizing resource allocation, banks can both save money and improve their operational efficiency.

Sentiment analysis can also be done automatically during the conversations where we can get feedback whether your customers are satisfied through scoring and manage agent performance and act on time to improve customer satisfaction. Sentiment analysis uses natural language processing (NLP) to try to interpret customers’ feelings within messages and conversations. During a conversation, the sentiment is analyzed in real time. That way Agents and Supervisors can track changes in sentiment from start to end of the conversation.

Machine learning will allow AI to go beyond simply what they have been programmed to do, seeking out new opportunities and delivering service beyond what has simply been asked of them. Through understanding multiple historical customer journeys, AI will be able to predict the next most-likely action of a customer in a particular situation, who are potential customers for upsell/cross sell, and proactively engage with them so as to avoid an unnecessary inbound interaction, providing a higher level of customer experience and reducing cost to serve. This is used for **Target Marketing/offers, Needs-based recommendations/Relationship deepening** by understanding client behavior.

Transaction Data Enrichment

It is an important part of financial management, both for financial institutions and consumers. It uses machine learning and artificial intelligence to decipher unintelligible strings of characters that represent transactions and merchants and converts them to readable text that shows each merchant's name and lists their address and city. It shows the local merchant's location, rather than the central corporate office. This method of turning hard-to-understand data into easy-to-read information, helps both banks and customers to understand where they spent their money and with whom. It reduces both customer service calls and fraud research costs because the customers can tell what they bought and where they bought it. Fraud detection reduces the number of people calling about mystery charges on their credit card bill, because they understand what those charges mean. Fewer calls mean less fraud research, which reduces costs. Most importantly, these clear descriptions help developers put financial data into context so they can more easily categorize and analyze purchases. This helps with things like budgeting, analyzing spending habits, credit scoring and being able to predict future earning and spending issues.

Conclusion: The value of conversational analysis with AI

By implementing iConvo's AI tools for conversational analysis, banks can meet the biggest trends in the industry, improve the customer experience, ensure compliance and streamline their processes. The result is happier customers, reduced risks and lower costs. Let us help you take customer service to the next level with our advanced AI solution.

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