



Role of Generative AI in the Finance Industry

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ABSTRACT

Generative computer based intelligence, being the uncrowned and much-discussed mechanical development. Nowadays, we must investigate the conceivable outcomes of the Utilizations of Generative man-made intelligence in Monetary Administrations and Banking businesses. Our fears can be put to rest and great transformations can be brought about by empowering individuals, organizations, and society as a whole when emerging technologies are used responsibly and ethically to our advantage. Guaranteeing Generative simulated intelligence frameworks capability as planned and expanding upon their huge language models (LLMs), it opens up an entirely different aspect by having the option to produce new happy for monetary administrations, particularly in promising use cases, for example, client experience, designated promoting, robotization, extortion risk evaluation, counteraction of AML and wrongdoing misfortune.

Presently the inquiry emerges - For what reason do monetary administrations and banking enterprises have to turn to Generative computer based intelligence? Monetary administrations associations are gazing at distinct real factors of information stacking up each nano second - it very well may be information connected with business sectors, clients and exchanges, which is out of control. Getting this information under one umbrella in a significant and sensible manner to use and deliver wanted yields is past people - given the scale, time, cost and helplessness to blunders.

Keywords : Generative AI, Finance, bank, technology, industry.

Introduction

Man-made consciousness and AI have previously demonstrated their backbone as far as taking care of the majority of the above issues, as computer based intelligence and ML ceaselessly learn and stretch out this preparation to make close exact forecasts, utilizing enormous measures of information. Consequently, the separating factor for the second could be the predominant and customized client assistance that could give moment answers and arrangements during a time where people are accustomed to going to research to give moment replies to each challenge tossed at them. Generative artificial intelligence is substantially more prepared to deal with unstructured information, expanding the degree for applications in the monetary territory. The force of artificial intelligence is currently available to everyone after the development of Talk GPT-4.

At an exceptionally significant level, the forward leap in LLMs is affecting organizations and client streams on three aspects: interfaces, independent direction, and functional productivity. At this point, the majority of businesses are concentrating on the third vector, which largely involves using functional copilots to boost the productivity of marketing and engineering teams. In my view, the greatest effect we are probably going to see in monetary administrations is on the connection point layer, i.e., the conveyance of hard-to-comprehend, high obstructions to trust monetary items.

As a country, we keep on seeing outrageous under-infiltration of riches and protection items in light of the fact that the passage obstruction to mindfulness and training is extremely high. Over 80% of Indians have ledgers, and around ~2.5% of the populace has put resources into common assets. A larger part of families like "more secure" ventures like fixed stores (FD) while disregarding possibly exceptional yield instruments like common assets. India's protection entrance is simply 4.2% and personal wellbeing costs are 47% of the all out wellbeing consumption.

Both of these items require making a forthright installment for some worth that may or probably won't yield over the long haul. To exacerbate the situation, the majority of these items are as yet bundled and sold such that makes it harder for a layman to comprehend and pursue high certainty choices, in this manner driving them to keep the greater part of their abundance surplus in FDs or investment accounts. As a result, they are product categories with high friction and high trust. This isn't simply limited to Level 2/3 urban communities or youthful experts. I'm mindful of occurrences where senior working experts, the classification that is regularly thought to be monetarily mindful, distribute their discretionary cashflow to FDs and have a lot of cash sitting in very low-yield bank accounts.

The greatest inquiry confronting these items has forever been: "How would I assemble trust?" This problem has traditionally been solved by educating potential customers about the importance of better money management by spending time with them in person, learning about their background, and building a relationship. The expense of this high-contact deals process is, by definition, high. Subsequently abundance counsels have limited their administrations to a client fragment with a higher pay and thusly a higher ability to spend and contribute. The majority of these businesses expanded as

a result of existing bank relationships or word-of-mouth. As a matter of fact, banks contributed ~55% to the first-year individual expenses of private life back up plans in 2021-22, as per the IRDAI Yearly Report. GenAI changes this by crashing the expense of schooling and decisively extending the addressable market.

Envision an omniscient abundance consultant, furnished with all the data and fine print pretty much every one of the monetary items you can put resources into. It converses with you in a language you grasp, keeping your degree of monetary education and individual income setting as a top priority. It eliminates the agony of reading lengthy documents filled with legalese and provides straightforward, objective responses to any questions you may have. What's more, organizations don't have to select and prepare a multitude of specialists across the length and expansiveness of the country to make this vision a reality. Man-made intelligence, as any product offering, scales limitlessly and conveys this help in an expense proficient way, making it conceivable to sell monetary items that were beforehand basically unviable. GenAI could do to abundance tech and protect tech how digitization helped credit and installments in the country.

Past customer training, there's capability to impressively step up item development by utilizing this recorded client criticism to construct items that are more appropriate for the interesting necessities of the new portions taking on these administrations. We additionally hope to see upgrades in guaranteeing, suggestion motors, and misrepresentation the executives for monetary administrations organizations, in any case, those advancements are possible more gradual in nature, conversely, with the disturbance in shopper schooling and deals process that looks for us.

The monetary open doors rising up out of GenAI's use attach well with the public authority's undertakings to support reserve funds and venture. The public authority has tried to work with a protected society through life, mishap, and medical coverage plans. The "Protection for All by 2047" vision imagines electronic protection conveyance and sachet protection items redid for individual necessities. All the while, the public authority has presented measures, for example, the T+1 settlement cycle in the value market and e-wallets in shared assets to support faster exchanges. These actions brought about forceful development in demat accounts. The absolute number of demat accounts in India contacted 114 million in Walk 2023.

Advanced conveyance of monetary administrations has turned into the critical point of convergence of government drives. India endeavors to construct a \$1 trillion computerized economy by 2025-26 and monetary strengthening structures a basic part of this vision. GenAI can assist with connecting the availability hole and democratize monetary administrations. The pandemic poked an enormous piece of the country to go computerized. The combination of AI and fintech, on the other hand, has the potential to truly propel India to the forefront of the digital revolution.

Throughout recent months, the universe of generative man-made intelligence has been quickly extending, with forward leaps and applications arising at an exceptional speed. From language handling to picture age, the capacities of generative computer based intelligence have developed dramatically, opening up thrilling opportunities for businesses and people the same.

This Google Patterns examination portrays the notoriety of certain terms that have overwhelmed the internet based world. Although ChatGPT's popularity peaked when it was first introduced in November 2022, it now appears to be slowly declining as the landscape becomes more congested. However, AI is at an all-time high due to the widespread interest it has been receiving. What should be noted is that while ChatGPT and computer based intelligence are the trendy expressions, the genuine term to portray this new artificial intelligence peculiarity - generative simulated intelligence - is no place close to as famous as its partners.

Below are some applications in the financial services space, that can see dramatical improvement by befriending Generative AI for Intelligent Banking:

- **Instant Customer Interaction** – This is the most obvious channel which banks can employ to better serve customers, by slashing wait times substantially for answers and solutions. Future questions also can have an intelligent knowledge base of pre-emptive answers to assist the contact centre staff in real time, making the response time much faster and efficient. This can tremendously improve the customer experience in terms of engagement, satisfaction and resulting business impact. We cannot underestimate the power of Conversational AI, which can produce appropriate human-like answers, personalized financial advice and payment notifications.
- **User-friendly Loan Underwriting chatbots** – Intelligent chatbots can be trained to assess customer credit-worthiness, understand tailored credit limits and make informed decisions in denying a particular amount of loan to a risky customer and instead offer the right amount of credit, if required, aligned with his predicted pay back capacity and intentions and other subtle and hidden behavioural traits. This can then graduate to personalized recommendations.
- **Claims management** - Similarly, claims can be addressed in much lesser time and with greater accuracy, reducing backlogs for insurance agencies and beneficiaries.
- **Sentiment analysis** – Building upon NLP and gaining valuable insights into customers' sentiments and emotions, by gauging their social media posts, and other news articles, companies can harness this tool to enhance their offerings and services and improvise their brand reputation.
- **Risk Management** – Banks operate with a certain amount of risk and unpredictability, which can range from operational risk, credit risk and market risk. Generative AI can quickly comb through structured and unstructured data and summarize potential defaulters, helping banks and financial services industry to reach out with necessary solutions to borrowers struggling with payments, without wasting precious time. Additionally, quick turnaround time when it comes to changes in market events can mitigate these risks to a large extent.

- **Fraud Detection** – Generative AI can be trained to identify stealth patterns evolving by the day in the financial terrain and identify and prevent suspicious activities, leading to greater trust on both sides of the business and minimizing losses to the financial industry while promoting growth.
- **Compliance** – Operational processes can be greatly benefitted, with lesser human intervention. KYCs and compliance go hand-in-hand when it comes to financial services and financial institutions can seize this opportunity and leverage Generative AI to highlight any discrepancies to save time and human efforts.
- **Content and Code Generation** – Content generation for Marketing activities, like catering to hyper personalized product recommendations, using all mediums of text, images, audio and video channels is highly achievable now in no time. It can also be used to generate summaries, reports, proposals and customer conversations. Software development for fintechs can be accelerated by maximising Generative AI's ability to provide code suggestions for many of the popular programming languages and enable accessing APIs faster, so programmers can spend less time writing code. Microsoft has already announced about "GitHub Copilot X, trained on GPT-4, and brings AI capabilities to the entire development lifecycle."

Data Privacy

One of the significant challenges that the banking and financial industry is subjected to is Data Breaching. Instead of using client data that cannot be shared owing to privacy concerns and data protection laws and regulations, shareable data can be created using synthetic data. Additionally, artificial consumer data are perfect for training machine learning (ML) models to help banks determine whether a customer qualifies for a mortgage loan or credit and what amount can be made available to a specific customer.

- **Privacy-Preserving Machine Learning:** Generative AI can develop machine learning models trained on sensitive data without revealing that data to the model. This helps organizations/businesses to build error-free models without exposing sensitive and personalized information.
- **Data Masking:** Generative AI helps create masks for sensitive data that allow organizations to share and reveal the data while keeping sensitive information masked.
- **Differential Privacy:** Differential privacy is a way to make sure that individual data points are not identifiable in datasets. Generative AI can add noise to datasets, thus making it more complex for breacher/attackers to identify individual data points.

Risk Management

Generative AI plays a vital role in risk management by aiding banks and other financial bodies to identify and manage risk and threats efficiently and effectively.

- **Portfolio Management:** Generative AI has potential applications in managing portfolios by analysis in market trends, identifying opportunities, and optimizing asset allocation. This would help banks mitigate their exposure to market risk and maximize their returns.
- **Credit Risk Assessment:** Generative AI can assess credit risk by analyzing credit scores, a borrower's financial history, and other relevant data. This enables banks to make more informed lending decisions and reduce their exposure to risk by default.
- **Fraud Detection:** Generative AI can detect fraud, a critical risk in the banking industry. By fraud detection in real-time, banks can reduce their losses and mitigate their risk exposure.
- **Scenario Analysis:** Generative AI can simulate various scenarios to identify potential risks and their impact on the organization under different cases.

As important as it is to amplify the powerful capabilities of Generative AI, equally significant is adhering to Responsible AI along with data governance, government regulations, as we cannot but deny that it can sometimes throw-up inaccurate outputs, owing to biased training data and not completely rule out "black-box thinking of models".

Conclusion

As the technology continues to improve, we can expect to witness even more advanced applications of Generative AI in the banking industry in the future. Consequently, it leads to a more efficient, secure, and personalized banking experience for customers, thereby building their trust.

Generative AI helps reduce the risk of errors as it detects inconsistencies and improves the quality of work associated with bank and finances and practices of the professionals by providing insights into complex financial issues and identifying patterns and trends in bank data. Additionally, Generative AI can help the bank industry provide better client services by providing quick and more accurate legal research.

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