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How will generative AI impact Financial Services?

Do what matters

Financial Services will soon see new opportunities to make a genuine human impact

Have you ever wished for a magic wand that would perform tasks on command? Ever wished for an assistant that could complete your articles, create minutes from your meetings, arrange your mailbox and prioritize tasks – or even manage your investment portfolio?

Yes, you guessed it. Welcome to the world of generative AI, where this kind of assistance is possible.

The Financial Services (FS) sector will be one to benefit most from generative AI. It will transform the way banks operate and how customers go about banking. With Microsoft integrating OpenAI into its product suite – including services like Microsoft 365 CoPilot – and making the technology broadly available on Azure, strong use cases are emerging across the FS sector. Whether through Teams integration, Microsoft Office 365, Bing, or using Dall-E for image creation, the real-world use cases look promising. With investment in OpenAI and the GPT-4 model, Microsoft is well placed to capitalize on these opportunities.

Key areas of focus

Here are some examples of how generative AI could revolutionize the industry.

Risk and compliance

The risk function is core to the FS sector. Having factual, accurate and timely data is key for regulation, compliance and risk reporting. Data aggregation, assessment against risk profiles, compliance with local/global regulations, benchmarking against internal risk frameworks, comparison versus industry peers – these are just some of the pivotal aspects of this function. Generative AI, once trained with adequate historical data and regulatory templates, can effectively automate 40-50% of these tasks and trigger alerts if any parameters are contravening regulatory requirements. The same principles and approach apply for banks monitoring their ESG commitments due to similar requirements around data capture and regulatory reporting.
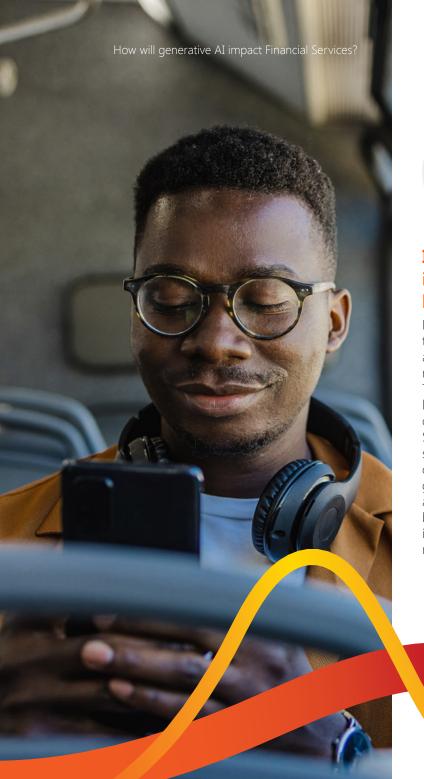
Customer service

Customer service has been one of the most disrupted services in the last few years, with the pandemic further accelerating automation and self-service. This is true of opening an account, simple-medium complexity query resolution, leveraging chatbots, card issuance and basic loan approval. There is opportunity for greater personalization and automation in areas such as credit checks, KYC, as well as reward and loyalty programs. This is due to the emerging richness of the data estate (structured and unstructured data) and data platform modernization.
As ever, the more data sets that are included in generative AI training, the better the results. More complex service transactions still require human engagement. Microsoft recently introduced generative AI into their digital contact centre platform so that generative AI can be integrated into every step of the service journey. This includes voice biometric authentication, sentiment assessment, message translation and call transcription all in real-time, plus virtual assistants, AI Copilot and conversational AI.

Wealth management

Over the years, we have seen the rapid emergence of robo-advisory solutions and personalized wealth management with better insights into needs and goals, especially for the mass affluent and High Net Worth segments. Training and modeling will be key for success, requiring tremendous amounts of historical data, new models and integration with the banks' own investment strategy, including risk-tiering of customers who receive this advice. Bank customers can get specific insights into potential investments and save hours of research. For instance, instead of reading through numerous financial reports, a five-year balance sheet overview can be completed in 30 seconds.

Investment strategies, including M&A and corporate banking

M&A activity takes months, and often years, to formulate and finalize due to the massive amount of research required, including company reports, financial news and competitor analysis. These can be expedited by leveraging large language models to summarize large amounts of texts and contextualize desired results. Such models can also be used to gauge market sentiment about the company, its board and other parameters of potential risk. Leveraging generative AI models helps monitor risk assessment and fraud detection, as well as better and faster data analysis which can help increase the size of the loan book and reduce non-performing loans.

Security

Cybersecurity has become a board agenda item over the last five years. The issue became more pressing in mid-2022 due to the heavy increase in fraud, ransomware and phishing activities in Southeast Asia targeting the consumer banking space. While the emergence of generative AI has complicated the life of CIO/CISO, it has also brought in a variety of benefits:

- Automating the creation of security runbooks.
- Auto-alert and flagging malicious activity in real-time.
- Auto-healing and remediation of security loopholes.
- Continuously auto-training the bank's security systems against potential malware in the outside world (who are also using generative AI to create smarter and more camouflaged malware targeting banks and their customers.)
- Ability to document incident reports, with detailed root-cause-analysis and suggested remedies.

With the recent launch of the Security Copilot, Microsoft has further bolstered its investments and strengthened its security play for banks and insurers.

HR, training and talent retention

There is always demand for talent within the FS sector. Because of economic and political uncertainty (Ukraine crisis, rising interest rates and rising cost of living), companies can leverage opportunities to better support employees at work, up-and re-skill people, predict employee churn, balance compensation and retain talent:

- Complete workforce evaluations against parameters such as skill, compensation, tenure, experience level and certification, and use the such data to create new models of organizational balance and mix.

- Identify the best people and ensure that they are retained.

- Implement wellbeing measures to avoid burnout and enhance employee productivity.

- Create automated training programs targeted at specific individuals for upskilling in a variety of competency levels.

These reports can then be done monthly, or even biweekly (rather than annually), with the option of producing such reports for a variety of skill levels, with suggested solutions for specific issues.

Risk calculation

Trade and loan risk calculations can be simplified. Banks and brokerages currently pay millions of dollars to product organizations for middle office risk engines.

Leveraging generative AI and assuming vast data adoption with 100% accuracy (99% accuracy being unacceptable in this domain) can automate this step. For instance, generative AI could be deployed for setting up contract for differences, where milliseconds matter.

Personal AI

We already see many smaller proof of concepts being spun up across many use cases. For example, Roamaround.io is an AI trip planner: give it a location and it will spin up a 10-day itinerary, including restaurants and hotels, in seconds. This can be personalized and expanded to suit individual needs, including creating a travel plan, making bookings, setting up morning calls, arranging taxis, scheduling meetings and many other personal aspects where AI can automate and save time for individuals.

Other more sophisticated and evolving areas include:

- **Complex trade product creation**

- **Automated Non Fungible Token creation for product and loan lifecycle management**

- **Metaverse adoption, experience personalization, mining and content creation**

- **Powering and enhancing quantum computing capabilities**

The challenges of using generative AI

There are several challenges that need to be addressed before widespread adoption of generative AI can occur:

- Data privacy and security needs to be in place. Sensitive financial data cannot be compromised or fall into the wrong hands.

- Generative AI can reinforce bias in the data it is trained on. There will also be ethical considerations associated with the outputs of such models.

- Any models used need to be compliant with local and global regulatory requirements. Such models often lack contextual understanding and simply do not get sarcasm or humour, which can lead to inaccuracies in the generated text.

- Algorithms are often black boxes, and it is difficult to understand how they arrive at their decisions. This lack of transparency can make it challenging for regulators and customers to hold banks and insurers accountable for their actions.

As the technology continues to develop and mature, we can expect to see more innovative and effective applications in the FS sector.

Next steps

Avanade has been working on generative AI and helping clients since OpenAI's public launch in 2019. We are a strategic Microsoft partner and, with Accenture, have more Microsoft-certified experts than any other business. From our experience in this area, there are certain steps that you can take which will help accelerate your progress:

- A robust data platform, application modernization and cloud enablement provides the foundation for efficient data storage and analysis.

- A solid data platform ensures seamless data integration and management and helps with training and fine tuning AI models for optimal performance.

- Cloud facilitates scale, allowing banks and insurers to meet growing computational demands as their use of generative AI increases.

- Cloud-based platforms offer on-demand resources, so banks and insurers only pay for the power they use.

For more details on how to get moving, do visit our generative AI website.

Please contact us for a short discussion or we can host a structured workshop on the topic.

There are clearly major opportunities across a wide range of use cases for banks and insurers to deploy responsible AI while reducing risks and helping to build customer trust.

Given our relationship with Microsoft, we would be happy to provide the support you require as you accelerate your journey to be AI-ready.

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