How AI innovation powers Microsoft's finance journey
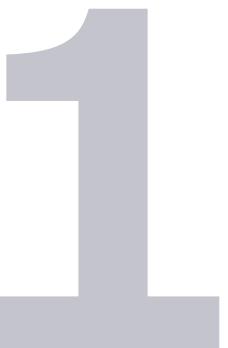
Transforming financial operations with emerging technologies to empower teams and gain a competitive edge.

EY

Shape the future with confidence

■ The better the question

How can AI innovation revolutionize the future of financial operations?

Microsoft's data-driven strategy to optimize processes and maximize efficiency.

1

In the ever-evolving landscape of emerging technology, innovation is essential for maintaining a competitive edge. Recognizing this, Microsoft, a global leader in technology and artificial intelligence (AI), aims to continually evolve its finance department.

Microsoft set out to enhance data literacy and harness institutional expertise by consolidating tens of thousands of detailed historical financial documents into a single knowledge library that can be queried in natural language. Additionally, Microsoft sought to explore AI's potential to automate the retrieval of historical product launch information, thereby improving time efficiency and productivity in financial activities related to new product development.

To unlock the potential within their vast array of financial data, Microsoft partnered with Ernst & Young LLP (EY) professionals. This collaboration provided vital insights, enabling Microsoft to apply best practices and enhance its expertise in digital engineering, AI and data analytics.

"As we strive to innovate and push the limits of technology, EY has been pivotal in helping us transform our finance department," remarks Sebastian Ayala, GM of Finance Data and Experiences at Microsoft. "EY's extensive experience in financial operations, scale and agility complemented our strengths, allowing us to successfully integrate AI-driven solutions in our finance department and achieve new levels of operational excellence."

This initiative not only underscores Microsoft's commitment to scalable solutions but also fosters an efficient, data-driven environment. By setting a new industry standard, it empowers users and significantly streamlines product development timelines, ultimately driving innovation across the entire organization.

2

Microsoft revolutionizes finance operations with AI

AI-driven applications enhance data fluency, streamline financial processes, boost productivity, automate tasks and provide actionable insights.

Microsoft's work to bring AI-enabled efficiency to the finance function began with two parallel efforts: Replay AI and Finance Launch AI.

Replay AI: merging finance data for effortless queries and analysis

The work began with the development of Replay AI, a centralized ecosystem that hosts various AI-based applications linked to different finance databases. By building a modular AI platform, Microsoft can now seamlessly reuse core functionalities – such as summarization, extraction and analysis – across various applications, significantly accelerating the development of minimum viable products (MVPs). This approach centralizes the infrastructure within a single environment and provides a unified user experience, reducing operational overhead and time to market for new features.

Further, Replay AI enables users to communicate in natural language, allowing finance and business teams to manage complex calculations and data analysis without needing technical acumen. Replay AI can summarize documents, translate files, and identify trends and patterns in large datasets, thereby enhancing financial data fluency across the entire organization. By leveraging Natural Language Processing (NLP), Replay AI transforms user queries into Structured Query Language (SQL) queries, enabling the generation of detailed reports that present financial information in charts and graphs, thereby aiding in the prediction of future trends.

Finance Launch AI: streamlining product launch processes with automation

Finance Launch AI is a chat-based application powered by a large language model designed to simplify essential financial processes, enhance user productivity and enable task automation for new product launches. It provides product launch managers with a comprehensive collection of data and insights related to key launch requirements. At its core is a knowledge library, a repository of historical proprietary data in various formats, including Excel, Word, PDF, PowerPoint, email, JPEG, OneNote and Visio.

With AI integration, the finance team can easily access a wide range of financial documents, from pre-launch specs to post-implementation report summaries. This access helps build a strong collection of institutional knowledge and reduces the discussion timelines needed to find the right launch parameters. Finance Launch AI simplifies the requirements process by studying and assessing comparable previous launch data. It also improves the team's ability to understand and summarize complex process documents, making it a valuable tool for customizing new product launches.

One standout feature of Finance Launch AI is its ability to draft initial finance requirements, saving Microsoft employees valuable time and effort. For example, when team members inquire about internal tax and compliance considerations for releasing a new stock keeping unit (SKU) in a specific region, Finance Launch AI provides clear answers. Additionally, it can identify unmet requirements, surface similar product launch details, and highlight key stakeholders involved, enabling teams to move forward with confidence.

"Retrieval-augmented generation (RAG) was implemented to enhance the performance of both Replay AI and Finance Launch AI by ensuring the systems reference trusted sources of information," emphasizes Dr. David Guarrera, Principal with EY Americas Technology Consulting, leading Generative AI initiatives, Ernst & Young LLP. "This responsible AI approach helps provide more accurate, relevant, and useful responses, promoting reliability and trustworthiness."

With Replay AI and Finance Launch AI, Microsoft's finance team is not just keeping pace with industry changes; they are leading the charge. These innovations promise to unlock new levels of productivity and insight across the organization.

The impact of Replay AI and Finance Launch AI

Achieving unprecedented efficiency and speed.

3

Replay AI and Finance Launch AI serve as groundbreaking examples of how emerging technologies can drive significant efficiencies within Microsoft's finance organization. This revolutionary technology sets a new standard, demonstrating how AI can transform and streamline complex financial processes, enabling users to leverage institutional knowledge and data through natural language.

Replay AI

Replay AI reduces AI application MVP development from four months to six weeks. It allows Microsoft departments to reuse essential components for various AI projects, eliminating the need to start from scratch and significantly lowering the cost of AI deployments across the enterprise. Additionally, it ensures secure access to data and insights while providing a consistent user experience.

Finance Launch AI

Finance Launch AI has achieved remarkable adoption rates within the Microsoft finance team, with some users describing it as "magic." Over 100 employees are now utilizing Finance Launch AI, which enables them to query and prompt hundreds of documents and thousands of pages in seconds—a true game-changer. This advancement underscores the technology's effectiveness and supports the company's goal of reducing the time required to gather finance requirements for new product introductions from 6-8 weeks to just 3-4 weeks.

The keys to these successes lie in several critical strategies. First, staffing the projects with professionals from various areas of the business provided a comprehensive understanding of the needs and challenges across departments. Second, developing the systems using a modular design allowed for the creation of separate, interchangeable components, enhancing flexibility and scalability. Third, testing and validating the systems through proofs of concept (POCs) delivered valuable insights and refinements from small, preliminary versions. Finally, applying best practices for responsible AI strategies helped protect data security, mitigate the potential for hallucinations and prevent overreliance on AI.

"Our AI-driven solutions are setting new standards for efficiency and innovation in our industry," notes Ayala. "By simplifying complex processes and reducing the time needed for data analytics, Replay AI and Finance Launch AI are more than just tools – they are trusted partners in driving financial excellence."

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