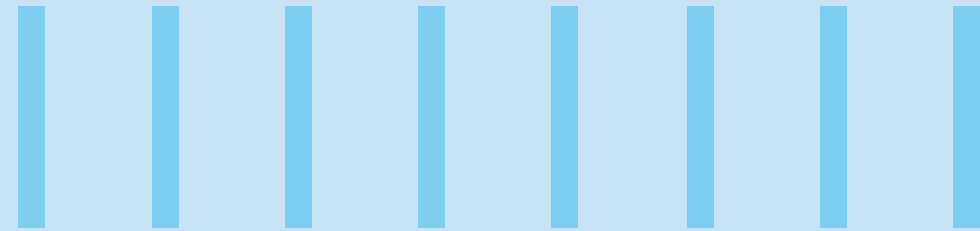# HOW AI CAN HELP IMPROVE INVESTMENT MANAGEMENT

Abstract

Asset managers and investment bankers can improve their efficiency and generate alpha with generative AI. This requires navigating challenges that encompass trust, regulations and data.

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Assessing the financials of an organization isn't easy

While economies benefited from low interest rates until early 2022, rates started climbing quite rapidly by the second half. This had an impact on the asset and investment management business. Global assets under management decreased 10% to $98 trillion — with the value of both bond and stocks declining significantly. As pressure built on the topline, costs remained elevated. Regulators and customers demanded that firms lower their fees. Retail investors pay on average 50% higher fees than those of institutional investors, according to the European Securities and Markets Authority. At the same time, regulators in the U.S. and the EU begun taking measures to bring in greater transparency of fees and expenses, which has increased regulatory and compliance costs. The M&A market declined significantly in 2023 – 15% to $3.2 trillion, impacting fees. To counter the pressure on revenue and rising costs, artificial intelligence can be used. The technology can help keep costs in check whilst boosting efficiencies.

But the path ahead isn't easy. Both asset and investment managers have their work cut out. Data is often difficult to obtain and is either incomplete or inconsistent or outdated, impacting the accuracy of their investment decision. An evolving regulatory framework coupled with fluctuating economic and market dynamics, makes assessing the investment decision even more complex. More importantly, the existing investment review process is extensively manual and time consuming, where investment managers need to sift through innumerable sources and documents.

Traditional financial models are also filled with inaccuracies. Each financial decision requires heavy reliance on expert judgement or insightful data that could be ignored or missed. These models also lack the abilities to correlate the hidden relationships between missing attributes in data because significant pre-processing and expert knowledge is required.

Investment managers must review and validate many financial proposals in a short span of time. In addition there are complexities spanning geopolitical, environmental and sustainability, and an evolving regulatory environment. Generating alpha (the excess returns over the benchmark returns) quickly becomes challenging for the following reasons.

Market efficiency:

As markets evolve, investments opportunities to approve are becoming more complicated. Even in emerging markets where there might be more alpha opportunities, there is also heightened risk.

Management fees:

While management fees reduce alpha, the primary reason for difficulty lies in the inherent complexity of stock selection. Regardless of the market, identifying winning stocks remains a daunting task.

Operational risk management:

As assets under management (AUM) grow, operational inefficiencies and manual errors become more common. Challenges include launching new products, maintaining complex structures, monitoring allocations, and handling exotic asset classes.

Quality data for better decisions:

Accurate data is crucial for investment choices, especially when dealing with private market assets. Both accounting and investment views need to align for effective decision-making.

Data integration:

Integrating data from various systems (front office, middle office, back office) is essential. Establishing a single source of truth and creating a framework for data sourcing, validation, and reporting are critical.

Regulatory pressure:

Regulations demand higher levels of consistency, completeness, and accuracy in reporting. Meeting these requirements adds complexity to investment management operations.

Adapting to market changes:

Investment managers must remain flexible, introducing new or alternative investment classes. Identifying core and non-core activities helps shape an optimal target operating model.

In summary, the pursuit of alpha requires not only astute investment strategies but also efficient operations and data management. The investment landscape continues to evolve, challenging managers to adapt and innovate.

Investment managers are finding their bottom lines pressed from both sides. Regulators and customers have demanded that firms lower their fees. Retail investors pay on average 50% higher fees than those of institutional investors, according to the European Securities and Markets Authority.[2] At the same time, regulators in the U.S. and the EU have begun taking measures to bring in greater transparency of fees and expenses, which has increased regulatory and compliance costs.

The value that AI brings in risk

Firms are looking at technology and AI to start playing a pivotal role in investment management and alpha calculations. AI is reshaping the investment management landscape, offering new opportunities, and addressing challenges. Further it is expected that use of AI not only aids cost reduction but also enables more predictability and stability in investment management.

AI provides real-time insights into the financial status of organizations by obtaining varied data such as financial, news, social media and credit ratings from a diverse and trustworthy source base – including stock exchanges, company's websites, media houses, social media feeds, rating agencies.

The technology can help collate vast quantities of information and present insights and risk recommendations to a credit officer in a comprehendible and digestible fashion.

Banking is one of the more regulated industries with innumerable compliance and regulatory checks. The technology has a strong use case in credit decisioning by recommending risk mitigating factors whilst being regulatory complaint.

Transformation potential of AI in investment management: Powering the "Digital Brain"

Artificial intelligence optimizes and accelerates the process of investment management decisioning and makes it more efficient. AI enables investment firms to analyze unconventional data sources (such as satellite imagery, social media sentiment, or supply chain data) to identify investment opportunities and gain an edge in generating alpha. By leveraging AI algorithms, firms can uncover hidden patterns and correlations that traditional methods might miss. AI powered automations maximize the potential of models such as DCF and Altman Z-Score. And finally leveraging Generative AI to uplift the customer experience by assisting advisors in personalizing content, generating insights, and delivering information swiftly. AI can make an impact in the following four key pillars:

PERFORMANCE METRICS

Artificial intelligence has been applied successfully in thousands of ways, but one of the less visible and dramatic uses is in improving data management. In the context of Investment strategies AI powered engines can ingest all **PERFORMANCE METRICS** such as financial ratios, Past performance, Cashflows, and data around market conditions very fast. This includes efficient data extraction from Text, PDF, images, and more. which is challenging for traditional tools. Initially, the tools used were template-based, where the user could automatically extract data from documents that followed the same template. However, AI has eliminated the need for uniformity in templates. AI-powered data extraction tools use natural language processing to understand the fields a business needs to extract.
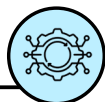
INTELLIGENT AUTOMATION LAYER

Quantitative Finance models such as Altman Z-score use complex calculations to validate the financial viability of any firm. These calculations need a vast amount of data to be extracted, correctly mapped, and then analyzed. Artificial intelligence-based models can rapidly extract data from various formats, aggregate and compute the logic for these models. An AI powered intelligent automation layer also helps in Outlier and Pattern dedication. Generative AI can be efficiently used by the analysts to query back on the logic used of computation, create stress scenarios on the go and rapidly check the impact on any policy or upcoming regulatory change with the investment proposal.

Improving Product and Content Distribution

AI-driven content customization enhances client engagement and satisfaction. Dashboards powered by Generative AI help in generating textual explanations for recommended output of the Quantitative models. Further they aid querying and enhancing the reasoning behind the model and its definition.

These dashboards provide high-level overview of the analyst portfolio, displaying critical information such as KPIs, current exposure, risk appetite, budget, and resource allocation. These are fully customizable and allows the user to track progress effortlessly.

Managing Risk

AI revolutionizes risk management in more than one way. In Compliance and Risk Functions: AI tools bolster compliance efforts by automating data analysis and ensuring adherence to regulations.

Ambiguous Event Prediction: AI models can anticipate and manage unforeseen events, enhancing risk mitigation.

AI is not without its share of concerns

Generative AI has its limitations. This transformative new technology can generate hallucinations and meaningless outputs, which will curtail business benefit if not managed effectively. There are also major concerns are around data privacy, algorithmic biases, and job displacement. Additionally, the reliance on AI for decision-making raises questions about accountability and transparency in financial practices. Institutions must ponder their investment returns at the same time as managing the transition from their complex legacy tech estates.

Adopt AI in asset and investment management

Despite the challenges, the potential advantages of generative AI make it difficult to ignore. Incorporating AI across these four pillars empowers investment management firms to transform their business models, operations, and internal capabilities. However, achieving the full potential of AI requires thoughtful management of the intersection between technology and talent. For firms to adopt generative AI quickly yet securely, a blend of culture, accountability, and impact must be considered including:

- A culture of innovation is key to quick and successful adoption of generative AI.

- Executive buy-in and support are crucial to building a generative AI solution.

- A well-developed training program to equip staff with the necessary skills is foundational for large scale adoption.

- Integrate ethical considerations into the design and architecture of generative AI solutions, particularly focusing on avoiding bias, protecting privacy, and preventing harmful content.

Asset and investment managers are cautiously adopting AI and generative AI due to regulatory scrutiny around the industry. As a result, most use cases do not involve direct client-facing activities, such as delivering advice. This indicates the necessity of human oversight, despite efficiency and automation benefits.

Infosys has a dedicated Quantitative finance and data science practice which brings an unique ecosystem of deep domain expertise, along with advanced analytics and powerful cutting edge technology to accelerate value creation across functions and processes in financial industry. To more about our offerings and solutions please reach to askusinfosys.com.

About the Authors

Navdeep Gill

Navdeep leads the Governance, Risk and Compliance (GRC) practice for the Financial Services vertical at Infosys.

She is responsible for the overall Go-to-Market strategy, new service line, competency development and delivery of all GRC programs, globally. Over her career, Navdeep has led multiple GRC transformational programs at leading banks and insurance organizations and is responsible for the IBM Open Pages relationship with Infosys. With wide global domain expertise and process competency across GRC, Operational and Enterprise Risk, IAM and Financial Risk management, Navdeep has authored numerous POVs and is a respected leader in this area.

Sharan Bathija Pradeep

Sharan has nearly two decades of experience. He is a researcher and producer at the Infosys Knowledge Institute, the thought leadership arm of Infosys Ltd. Within the Knowledge Institute, Sharan has been focused on the evolving impact technology has across the financial services industry. He is passionate around boosting financial inclusion, democratizing financial advice, simplifying retirement savings, modernizing the way mortgages are delivered, and tracking how payments are swift and reliable.

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