AI in Equity Investing and Portfolio Management Services

BY AKASH GUPTA

Artificial Intelligence has been transforming every sphere of our lives. It reinvents our point of view towards how we analyze huge amounts of data to draw useful insights that drive prudent decision making. One such area where AI has been repainting the global scenario is in Investing and Portfolio Management Services.

Mathematical modelling and complex algorithm based trading strategies have been long used for portfolio management. Perhaps the most notable personality related to the same is hedge fund manager Jim Simons and his company Renaissance Technology's "Medallion Fund". Founded in 1988 by mathematician Jim Simons, the Medallion Fund has generated 62% annualized returns for its investors and has become synonymous with the idea of using mathematical models and algorithms to trade in financial markets.

AI allows portfolio management service providers to create portfolios as per the required rate of return guided by the investment policy statement (IPS) which captures various aspects of an investor's profile such as investment horizon, liquidity requirements and risk tolerance.

"AI offers a plethora of features, such as data analytics, comprehensive risk assessment, multi-asset allocation, portfolio rebalancing, and performance tracking, for generating alpha and lowering transaction costs."

The Power of AI

IPS Curation
An investment policy statement (IPS) is a document prepared between an investor/client and the portfolio manager that outlines general rules for the manager. This statement provides the general investment goals and objectives of a client and acts as a guide that offers a structured and objective methodology for prudent investing in the markets.

Data Driven Findings & Fraud Detection
AI powered tools can handle huge volumes of company-based information from a variety of channels, such as market trends, economic intelligence units, economic indicators, annual reports, earnings calls, investor presentations, and social media. Sharper forecasts can help in better management of risk and in hedging uncertainties.

Algorithmic trading
High-frequency trading (HFT) algorithms coded and developed by AI enabled systems can exploit real time market arbitrage opportunities and generate abnormal trading profits for the investor within a very short time, sometimes even in fractions of seconds, which are automatically refined and back tested.

Lower Cost of Transactions
Routine tasks that otherwise are done by personnel and staff can be automated, such as buying and selling of securities as per the Fund mandate, portfolio rebalancing, risk monitoring, generation of portfolio performance reports etc. This leads to lower operational cost and a lower expense ratio for the fund.

Robo Advisors and Chatbots for Automated Customer Service

AI-ML guided portfolio management portals and services can be accessed at all times of the day and from anywhere, through omni-channels, that provide round the clock real-time updates and notifications. This has allowed the automation of customer service for routine, high volume, and low level work.

Prudent Risk Management

AI tools have been able to create complex financial products which provide risk pooling advantages by combining various products and sub-products. It empowers investors to strengthen the risk management aspect of the portfolio by superior forecasting and prediction.

AI in Portfolio Management: Risks Involved

Data Training

The power of Artificial Intelligence emanates from the quality of historical data on which it is trained. Some of the data related challenges include being fed an incomplete data set, biased data set, and unavailability of a large data set.

Reliability and accuracy

The results can vary according to the degree of assumptions and framing of the holistic model, and exogenous factors and can produce faulty and unexpected outcomes based on the volume and quality of its training data set.

Transparency and trust

The models and working of AI are complex and extremely difficult to understand. It is not really a transparent and deterministic model.

Cost and Security

The cost of implementing a comprehensive AI based platform or solution for portfolio management is substantial and capital intensive. It requires installation of premium grade hardware, software, and a dedicated team for troubleshooting and issue resolution.

AI in Contemporary Indian Scenario

It is exciting times ahead for the Indian portfolio management space as the nation races towards the target of becoming a USD 5 trillion economy before the financial year 2026-27 and a developed nation by the year 2047. The rise in inflation over the latter half of the past decade has forced Indians to rethink their investment strategy and move away from traditional investment channels of FDs and other safe havens that offer below par returns to equities and bonds.

Retail investor penetration has improved drastically after the Covid pandemic. **The number of demat account holders in India continues to skyrocket, with 11 crore accounts in January 2023, compared to only 8.4 crores as reported in 2022.** Even with these massive figures, it is estimated that only 3% of Indian households are actively investing in stock market.

This signals greater inflow of retail money in the markets in coming years. This sentiment needs to be boosted by a favourable ecosystem represented by simple financial products, low costs of transaction, along with cyber security threat counter mechanisms and accommodating regulatory landscape.

Akash Gupta
IIT (ISM) DHANBAD, EX-DELOITTE

Akash is a CFA charter holder, a management consultant by profession and a finance enthusiast with interests in equity research.