Impact of AI in Financial Services and Banking

Recently there has been a remarkable increase in the usage of AI Implemented services at the financial sector be it retail or corporate, because of the cost-effectiveness and techniques to assess abundance of available data provided by their ML solutions. Since a major chunk of hedge fund professionals are using AI/ML in building investment strategies, financing startups concentrating on AI applications has tripled between 2016 and 2017. We could see this in the ways companies work on distribution, risk management and operations in their front and back offices.

The first use-case is Asset Management where AI is used to produce extensive portfolio allocations by reducing direct and indirect transaction costs thereby creating efficient operational workflow. Also, it is used to enhance risk management by efficiently monitoring thousands of risk parameters and for simulation of portfolio performances under thousands of markets. Next is Algorithmic Trading, where AI is used in building trading strategies. Traders use AI to execute large order trades by optimizing duration and order size of trades based on market conditions. Also, AI helps control liquidity allocation to brokers with little-to-no human intervention.

Another use-case is the Assessment of Credit and creditworthiness used by Banks and FinTech companies. AI assists in anti-money-laundering checks, credit risk management of loan portfolios to predict corporate defaults. AI powered Credit scoring models allow check on clients with limited credit history through conventional credit information and non-affiliated digital data. AI in Blockchain-Based Financial Services is a use case that has brought DLT among us. Distributed Ledger Technology refers to the technological infrastructure and protocols that allows simultaneous access, validation, and record updating in an immutable manner across a network that's spread across multiple entities or locations. It allows for tokenization of assets in a blockchain-based network and the largest potential of AI in DLT-based finance is the use of smart contracts.

The major emerging risks includes Data Privacy as the use of inadequate data introduces risks to firms that use these AI techniques as well as data privacy and confidentiality of consumers. The OECD INFE developed research and policy tools to empower consumers with their main principles being financial consumer protection as well as disclosure and transparency.

Algorithm bias and discrimination in AI is another risk where AI applications can potentially compound existing biases found in the data as models trained with biased data will perpetuate biases. However, careful design, diligent auditing and testing of ML models can further assist in avoiding potential biases.

AI has been on a remarkable rise in the financial sector, both banks and Fintech companies providing cost-efficient and intelligent solutions for algo-trading and asset management but the risks to it challenging Data Privacy and potential AI bias are something that need to be and are continuously being monitored by policy makers and economic commissions in terms of transparency and security.