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Corporate Finance & FX Advisory

The Future of AI in Financial Services

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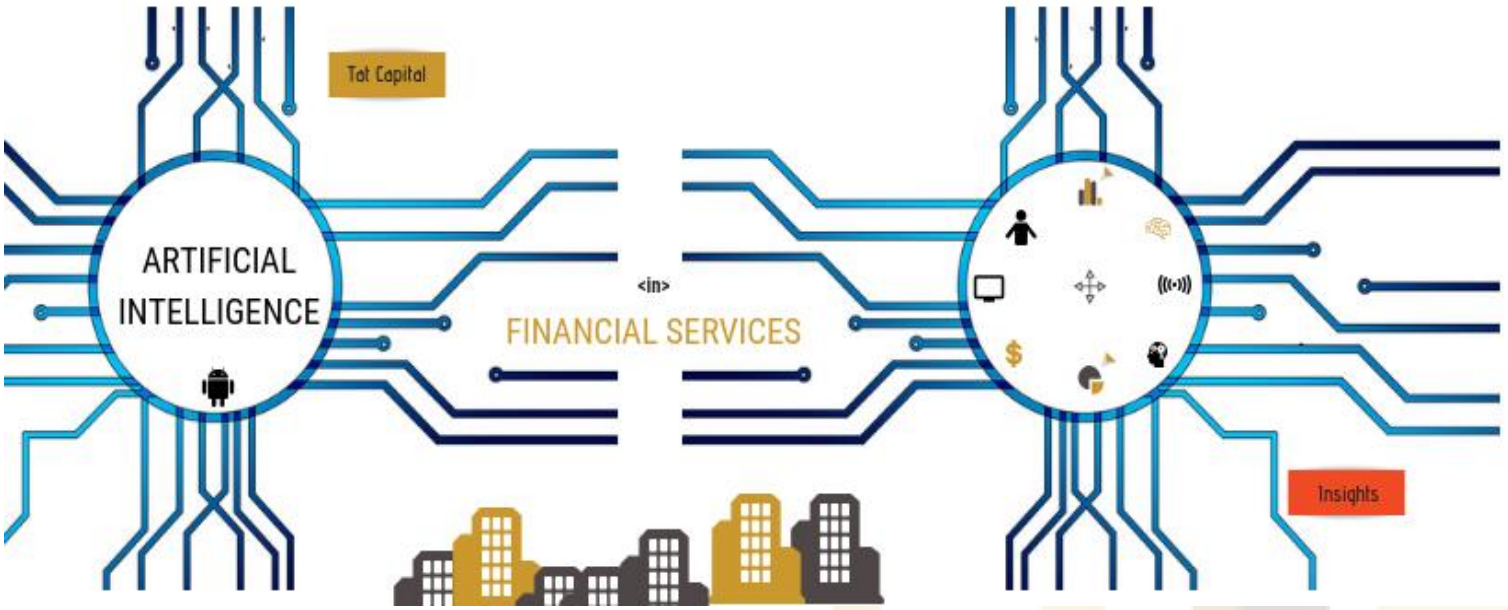

The Future of AI in Financial Services

What is AI? Is it just the data or is it beyond just the use of data? Is it just smart contracts or just smart automated technology?

Oxford defines the word intelligence as 'the ability to acquire and apply knowledge and skills', and the word artificial is defined as 'being made or produced by human beings rather than occurring naturally, as a copy of something natural'.

If we see, the internet enabled global accessibility of data via the network of communication devices. Blockchain will enable global trust via the network of various ledger technologies, across various industries. Next machine learning and deep learning technologies will enhance the human experience to get you ready for the 'SUPER' era of Symantec and Quantum computing.

The AI era is not far away, so let us look what that entails:

Is it all about automation, robotics and computer-generated intelligence, or it just pure AI - artificial intelligence?

Artificial Intelligence is fast becoming the central element of fourth industrial revolution and we see real world applications of AI development across all industries; even as highly personalized and individualized services are sought by tech-savvy consumers.

- Accenture Survey points that banks investing in AI and human-machine collaboration at the same rate as top-performing businesses could boost their revenue by an average 34% by 2022, with 76% of banking CXOs agreeing that AI adoption will be critical to their organization's ability to differentiate in the market.
- As per IDC's estimates, Global AI investment of $57.6 billion is expected by 2021, with KPMG reporting ~$10 billion of AI Investment to be made by financial institutions by 2020.

AI, simply put, uses an adaptive predictive power along with a degree of autonomous learning, so that we achieve efficiency in pattern detection, decision-making, customization, and communication.

When this AI niche interacts and collaborates with other technological innovations, be it IoT, Blockchain, Cloud services, etc., the benefits that businesses could come to offer will not only be enormous, but radical in every way.

How could its application affect the financial industry though?

We are looking at a more inclusive, accessible and stable financial ecosystem, functioning with human-centric values, as machines come to serve the interests of the individual, and the society at large.

If we see, ever since the financial crisis, trust in traditional institutions has taken a beating, urging the need for high-quality services, to not only maintain customers' confidence, but to nurture with it a long-standing relationship.

However, AI application does not necessarily involve throwing away the traditional models, in fact, it will be a coming together of the old and the new, overhauling the current models to offer better services, through streamlined processes, leaner operations, improved efficiency, and decreased costs.

JP Morgan - The industry example:

JPM, the largest bank in the United States, is a very pristine example of this adoption.

The JPM story reports of a transformation, as it moved away from offline legacy systems, spending nearly $20 billion to scale its technology over the past two years.

Services including 'Mobile First, Digital Everything', digital account opening, its WePay acquisition, and driving such changes through the right technical talent hire, puts JPM as a market leader in the industry for tech revolution with proactive shifting. For instance, it boasts of nearly 32 million active mobile customers, wherein the bank has 3 mobile apps and 1 digital wallet.

AI Impacts:

Data is the cornerstone of AI's predictive potential. A strong technological expertise & cutting-edge infrastructure aids in building innovative and differentiated datasets, complementing financial data. E.g. AI can increase the efficiency of underwriting by reducing error rates, incorporating new datasets and automating risk modelling.

Customization: of products / services through a highly focused approach, by understanding user requirements, not just specific to finances, but even other opportunities to improve their day-to-day lives.

- a tailored product offering at near-zero marginal cost
- highly detailed / personalized insights to aid financial advice; advanced recommendation engines
- automation of customers' finances - e.g. increasing the speed of payments processing, account opening, compliance reporting, etc
- platforms to compare and switch between products and providers
- continuous optimization of most routine customer decisions

Collaboration: AI will play a chief role in fixing certain core issues in the financial system through cross-institutional collaboration. E.g. A shared dataset from multiple firms will add great value to onboarding a customer, automating & speeding up several key components.

In fact, such data partnerships in view of short-term opportunities might even obliviate few businesses, as few others emerge as ecosystem hubs.

Decision-making: AI unlocks novel insights that has so far been in the dark, driving improved performance, better returns through more resilient product performance.

For instance, credit adjudication can be made instantaneously, allowing real time credit offering. Even identifying high-potential investment opportunities, offering customized risk estimation, etc., through current strategies is posing a difficult battle. This is where AI has aided JP Morgan in predicting trade price impact and cost, mitigating the impact of price movements and executing a best price strategy to optimize trade.

USPs: Through various process improvements, what AI does is, it allows institutions to redefine their core offerings.

- Product distinction beyond pricing; entry into untapped market segments
- Newer offerings that were not previously possible. E.g. New investment strategies or unique risk factors that were previously underserved being met out in the Fidelity Next-generation smart-beta ETFs
- AI enabled processes / back-offices offered "as a service", resulting in efficiency and a sustained revenue source.

Availability: AI supports customers when and where they make decisions, in their preferred modes of interaction.

While this may increase competition for customer engagement, it unlocks new segments of customers within untapped markets, across demographics and countries, through digital channels, offering a seamless experience that automates the purchasing process. E.g. amazon go is a cashier-less brick-and-mortar store.

Operations: AI capabilities must be tightly integrated with core systems infrastructure to drive value. This will mean wholesale replacements of core infrastructure, as well as future proofing of new infrastructure becomes a necessity.

Talent: Work skill is a crucial factor to achieve the most impact out of AI applications.

- Firms need a clear view on the roles and responsibilities that institutions need today, and how demand for skills will change over the longer term, and tailor make talent strategies accordingly. [FinTechs & large tech companies now have the high card.]
- Regulators likewise need to up their AI knowledge to make right decisions on the use of AI, in a way that protects consumers, while still leaving room for innovation.

Market: AI application will push market structures to extremes, at the expense of mid-sized firms, favouring:

- Scale players with low prices, as they have natural cost advantage, and
- Niche innovators, as they cater to under-served customers by targeting unique, unmet needs.

Regulations: In many jurisdictions, data regulations are still being developed, which will solidify in a few years making way for a freshly regulated financial markets.

- Usage rights for public and private cloud infrastructure; data hosting; privacy and data-protection will determine how the players collect, transmit and store personal data
- Collaboration between regulators and market participants will be key to create a common model for holistic adoption across institutions
- International frameworks to manage systemic issues across jurisdictions and for efficient cross-border collaboration - is critical.

Risks: With new AI models entering the ecosystem, the risk landscape will change - both by negating the existing and potentially adding new, unexpected risks, such as cyberattacks. A proactive collaboration between institutions and regulators to identify and address these potential sources of risks holds much weight.

- Self-learning systems acquiring new behaviours with unintended consequences
- Subconscious bias or lack of diversity among development teams
- Incomplete, unrepresentative or biased datasets, and other exclusionary effects
- Workforce displacement due to traditional redundancy, lack of reskilling, potential career growth trajectory, etc.

Takeaway: Regardless of sector, AI presents myriad opportunities for financial institutions to make meaningful improvements in BAUs, as well as in bringing about radical industry transformation.

Even as the global financial system transitions into this tech revolution, all players alike must be proactive to manage the large-scale displacement of labour, as well as develop modern tools to manage the ethical uncertainties that AI brings in to the ecosystem.

The process entails huge commitment and foreground work to mitigate socio-economic risks, aid multi stakeholder collaboration, etc., but this will make way for financial institutions to have a healthy balance of competition and collaboration!

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