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HOW AI CAN BENEFIT FINANCIAL SERVICES

OVERVIEW

In January 2021, an independent committee of experts in artificial intelligence (AI) published, the 'AI Roadmap', a report for the UK government to help develop an AI strategy for the future[1].

AI is poised to make a huge contribution to the UK's economic growth in this decade – the AI Roadmap cites a survey which estimates that AI could increase UK GDP by 10 percent by 2030. Given the impact of Covid-19 on the economy, this contribution will be more important than ever. The paper acknowledges the impact of potential AI applications, discusses key challenges and sets out a roadmap for a nationwide strategy.

Over the last decade, the take-up and advances in cloud computing, improvements in AI algorithms and the explosion of data have already revolutionized AI-enabled technology in a number of existing products and services. These three mega-trends are only likely to accelerate going forward. For companies, it is a question of when, not if, they would start to incorporate this technology to drive business value.

Whilst the AI Roadmap doesn't specifically discuss financial services, it piqued our interest given our active involvement in this intersect. At Capco, we have been in the weeds, helping financial services firms to fulfil their AI journeys. This paper is our view on the possibilities of AI in financial services, based on our experience and the UK government's AI Roadmap. In our paper, we touch on how AI can help financial services firms, present some promising AI use cases for different financial service sectors and discuss the important considerations when building out your AI capability.

Read on to find out more.

USE CASES OF AI IN FINANCIAL SECTORS

AI has the potential to substantially transform organizations across different sectors within financial services.
Below are the key use cases from the different sectors in which Capco operates.

CAPITAL MARKETS

Trade processing
AI Implementation can enable faster trade processes and reduction in manual errors by automatically identifying relevant data from unstructured documents.

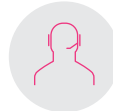**Monitoring, surveillance and compliance**
Anomaly detection can be used to identify risky trades alongside NLP techniques automate monitoring of conversations such as emails and chats.

Risk analytics
AI techniques such as deep learning could be used to identify operationally risky processes and reduces credit / market risk.

WEALTH & ASSET MANAGEMENT

Client communication
Customising at scale based on known client preferences to enable better activity and engagement, instead of generic client journey templates.

Investment recommendations
Auto-generating investment recommendation and ideas for client (for trading) based on known preferences and dynamic segmentation.

Advice Decision Paths
Using AI together with data on client situation, preferences and risk tolerance to create advice decision paths for financial advisers.

INSURANCE

Pricing
Current pricing techniques are very rigid, introducing an elastic pricing approach based on AI enables insurance firms to provide more strategic and flexible process to different customers.

Claims
AI based solutions can dramatically enhance claims processing by automating visual inspection of physical items and help to identify fraudulent claims.

Underwriting
Underwriting could be automated with AI and RPA where the underwriting process is augmented with real-time pricing models and real-time data collected from suppliers.

BANKING & PAYMENTS
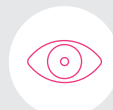
Fraud detection
AI is enabling a growing usage of biometrics and smart devices to secure payments and reduce fraud.

Predicting customer payments
AI can help predict late payments for credit accounts and better prepare the payment providers for such events.

Personalised services
AI enabled chatbots using NLP techniques are increasingly being used to interact with customers to improve customer service and reduce cost.

CASE STUDIES OF HOW AI CAN HELP YOUR COMPANY

The above examples are a great overview of the potential of AI in financial services, but they can seem a bit abstract. Below are some specific examples of how AI has been applied successfully, to assist with:

Increasing Business Resilience

If ever there has been a time which has highlighted the importance of business resilience, the last year has been it. The pandemic has posed huge challenges and placed unprecedented demands on businesses large and small. AI can play a role in increasing business resilience and helping to manage the impact of unexpected events.

A specific example is a tier 1 global bank, who has been using a model to reduce the occurrence of operational risk events (OREs). An ORE can happen when a trade is being manually settled and the payment is sent to the wrong company by mistake. In most cases, the counterparty promptly returns the cash. However, in many cases the counterparty refuses, resulting in protracted legal disputes and losses in the hundreds of millions (or even billions!) of dollars. Using a model which was able to predict the ORE occurrence in each month, the bank was able to identify key drivers causing OREs, take steps to mitigate the risk and so increase organizational resilience.

Improving Operational Efficiency

AI innovation had long been recognised as an important catalyst in increasing productivity –the UK government has been investing in this area since the AI Sector Deal in May 2019 [2]. Technological advances have often led to better operational efficiency and hence higher productivity. Automation is the buzzword here, as they allow the organisations to transition manual laborious work to rapid real-time processes with the clicks of a few buttons, allowing both time saving and reducing the risk of human errors.

A tangible example is a tier 1 global bank that has been using an AI-powered capacity model to help them navigate volatile markets. Previously, the bank had struggled to estimate the workforce required to manually settle and remediate trades in changing market conditions. Overestimating the required capacity leads to a higher cost per trade but underestimating capacity runs the risk of being unable to cope and missing service level agreements (SLAs). The bank is now able to predict the capacity required ahead of time and is able to better plan resourcing according to their needs. Crucially, they can use the same tool to scenario model how changing market conditions across different products lines affect the overall capacity required in market operations, helping them react to unexpected market events [3].

Becoming More Customer-Centric

2020 was a challenging year for customers and businesses, with the impact of the pandemic affecting everyone, both personally and financially. As a result, millions have experienced material changes in their circumstances. It is therefore more important than ever that financial services companies are best able to tailor their product range to take into account the evolving needs of their customer base. Whilst AI is good at crunching data at a large scale to, for example, anticipate potential customer pain-points and goals, it can sometimes work best when augmented with a more human-centric approach to truly understand customers' behaviours.

A specific example is a tier 1 global bank which has combined the best of both human and AI to assist in designing customer personas for a new product. They combined external and internal data (most of which was collected pre-COVID), as well as insights from customer interviews to predict the relevance of their new product with different customer personas. AI was used to uncover hidden customer needs from this internal and external data, and at the same time successfully helped to extrapolate the more qualitative research. This helped ensure that any product propositions devised resonated with their target customers and also were personalised as much as possible.

BUILDING YOUR AI CAPABILITY

A major area that the AI Roadmap focuses on is skills and diversity. AI is not just about building software or an application but is rather the process of intelligently using advanced methodologies to address real-life business problems.

From a company's perspective then, investing in training and recruitment is vital for sustaining long-term success in AI. This does not just mean hiring data scientists and machine learning engineers (two roles commonly associated with AI) but also upskilling existing staff in the best way to scale and manage AI projects over the long term. In the financial services industry, as in other industries, there is a strong demand for skilled people who can understand, design, build and commercialise AI tools.

Large organisations understandably find it more difficult to change systems and processes and so embarking on AI innovation journeys is typically more challenging, especially when essential BAU (Business as Usual) work is already under tremendous pressure. No matter where your organisation currently stands on your AI journey, Capco can help to accelerate it. We help our clients solve their most pressing business problems with blended teams of data scientists, data engineers, solution architects and more. Once a solution is built, we help with the transition to the new process and are careful to properly train existing staff to run the AI application in BAU. Furthermore, we can also leverage our dedicated 'Data Science Lab' to provide a testbed to rapidly prototype and develop new ideas and solutions.

CONCLUSION

With the ever-changing UK economic landscape following COVID-19, numerous opportunities and gaps have surfaced, and AI is surely set to have a large impact on the industry going forward. An increasing number of start-ups are emerging in the fintech space and incumbents are trialling new AI innovations to attract more customers, improve processes and drive revenue. The full scale of how this will pan out in the future is still to be seen. One thing, however, is for sure: in the coming years, AI will become increasingly important for all financial services firms.

Connect with Capco to see how we can support you on your AI journey.

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ABOUT CAPCO

Capco is a global technology and management consultancy dedicated to the financial services industry. Our professionals combine innovative thinking with unrivalled industry knowledge to offer our clients consulting expertise, complex technology and package integration, transformation delivery, and managed services, to move their organizations forward.

Through our collaborative and efficient approach, we help our clients successfully innovate, increase revenue, manage risk and regulatory change, reduce costs, and enhance controls. We specialize primarily in banking, capital markets, wealth and asset management and insurance. We also have an energy consulting practice in the US. We serve our clients from offices in leading financial centers across the Americas, Europe, and Asia Pacific.

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