Advanced Analytical modelling for enhanced detection of Money Laundering

Over the last couple of years, Nationwide has been on a journey to enhance its Anti Money Laundering controls to keep pace with our ever-evolving member activity and ensure robust and proactive detection of money laundering across multiple risk typologies.

Conventional rule-driven criteria which are typically used in the industry to monitor transactions for money laundering can be limited in some instances, particularly when they are applied to large data sets. Though simple and intuitive, one-dimensional thresholds in isolation can result in either very narrow rules focusing on only the most extreme behaviour, or broader rules with large numbers of false positives.

Alternatively, a multi-dimensional mathematical model can be used to approximate the distribution of data where required, enabling the complexity and curvature to be accounted for, ultimately leading to enhanced identification of money laundering cases through more sophisticated, yet explainable targeting. This modelling methodology is then used in combination with more traditional methods to form a layered approach to detection of money laundering.

This presentation will cover:

- **What is Money Laundering** – a high-level overview of what money laundering is, and how it is detected in financial services.

- **Conventional approach for targeting Money Laundering transactions** – understanding some key challenges associated with traditional rule-driven criteria.

- **The Advanced Analytical approach** – summarising the benefits of using distributional techniques to target money laundering in multiple dimensions.

- **Case Study** – an example of how the Advanced Analytical approach has been used to detect money laundering at Nationwide.

This presentation blends business and modelling knowledge together to demonstrate the uplift Advanced Analytical modelling techniques can provide within the area of Financial Crime.