CASE STUDY

LEVERAGING ADVANCED AI TO AUTOMATE YOUR AML INVESTIGATIONS

Financial Institutions continue to invest billions of dollars every year to investigate millions of alerts generated from transaction monitoring systems. This requires tens of thousands of individual analysts to manually look for suspicious activity such as money laundering. Ultimately, more than 95% of alerts are closed with the remaining reported as Suspicious Activity Reports (SARs)[1].

Investment in recruitment and training of analysts is costly and the market availability of resources is both limited and subject to churn. Determining suspicious activity remains a difficult task, which can be costly when done wrong.

The best analysts usually manage teams and pass on their expertise or perform assurance activities to ensure continued quality assurance to the process. Despite best efforts, ensuring a consistently high quality of analyst performance as well as being able to evidence this has so far been elusive.

1 Rules-Based Monitoring, Alert to SAR Ratios, and False Positive Rates – Are We Having The Right Conversations? See https://regtechconsulting.net/uncategorized/rules-based-monitoring-alert-to-sar-ratios-and-false-positiverates-are-we-having-the-right-conversations/

Nasdaq

Technology is changing this. The Nasdaq Automated Investigator for AML learns from activity already undertaken by expert human analysts to understand how and why their actions are considered as best practice. These actions are then modelled and redesigned into a solution that replicates best practices in line with an institution's risk management model.

By implementing the Nasdaq Automated Investigator for AML, a Tier 1 Global Bank was able to automate risk investigations which not only increase overall productivity, but deliver a consistently high performance level, with evidence and assurance built in.

BACKGROUND

A Global Tier 1 Bank with tens of millions of customers across the globe was inherently focused on improving effectiveness and efficiency in the operation of their transaction-monitoring program.

As with many banks, the operation of catch-all detection models was producing an increasingly high volume of alerts. According to UK Finance, the ratio of alerts to transactions for UK Banks is around 0.1%, which equates to an estimated 20 million alerts. Every year, the bank was processing billions of transactions globally and handling hundreds of thousands of subsequent alerts.

The Nasdaq Automated Investigator for AML was initially trialled in a specific business territory that itself managed 13,000 alerts a month through a team of 100 analysts. With a case completion of 0.88 cases per hour and 95% quality assurance risk assessments, the analyst team was finding it hard to consistently judge risk across cases. Quality issues were caused by a lack of both experienced analyst resources and decision insights, whilst the resulting insufficient and inconsistent decision narratives led to auditing pressures.

DRIVERS

The bank aimed to increase efficiency, improve quality and enhance its risk management approach to transaction monitoring. Addressing those needs would reinforce the bank's commitment not only to better compliance but also better compliance outcomes, with analysts being able to spend less time confirming false positives and more time focusing on more complex cases in which SAR's were filed.

By applying automated AML investigation technology, the Bank aimed to:

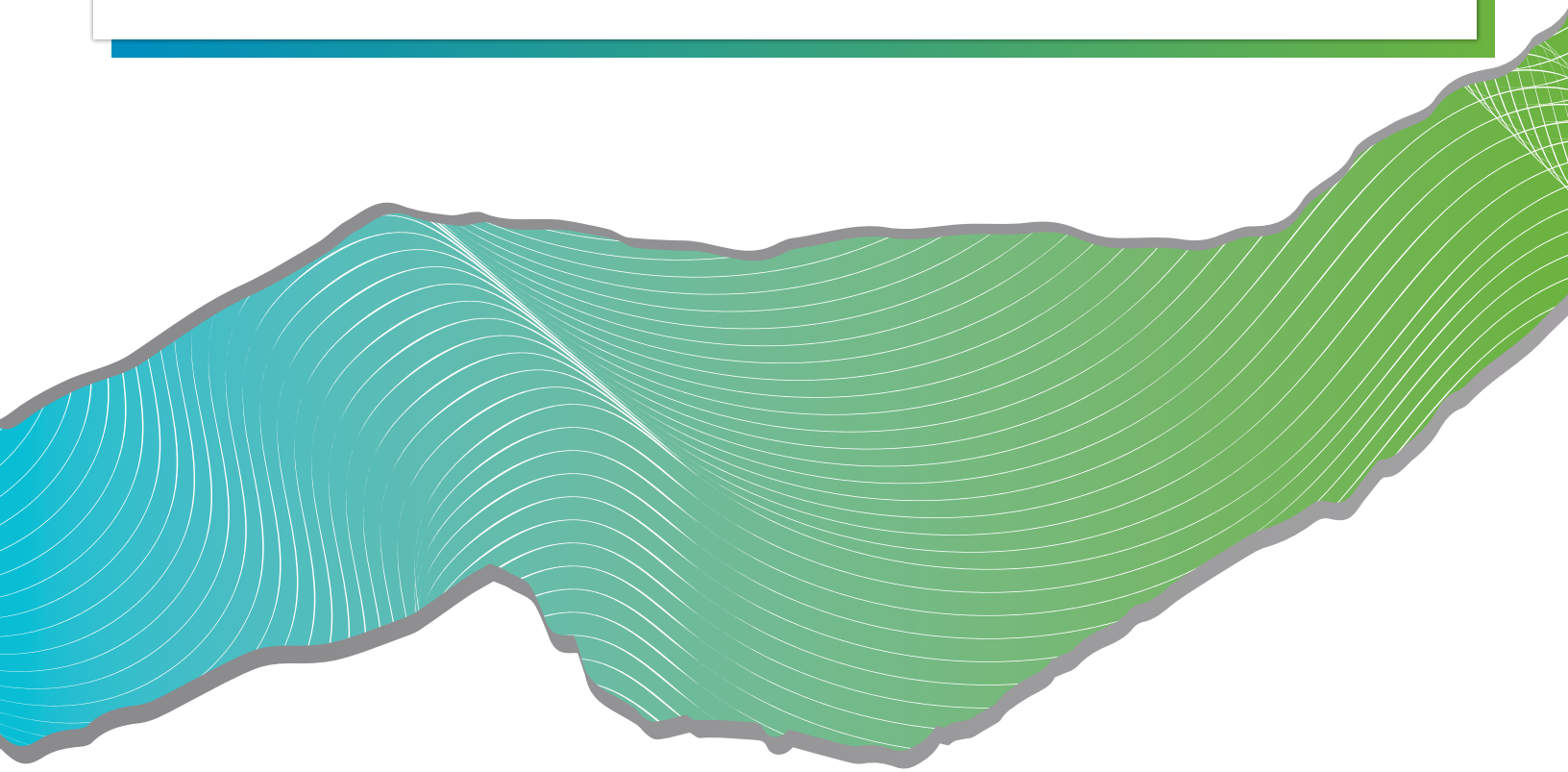
ACHIEVE COMPLIANCE – enhance confidence levels regarding compliance with applicable regulations.

IMPROVE QUALITY – maintain or improve the quality of the alert review process.

AUTOMATE DECISION MAKING – demonstrate that increased automation could replicate certain analyst behaviours without compromising on quality, even in areas where human decision-making was involved.

GENERATE EXPLANATIONS – demonstrate that machine-based outcomes based on machine learning, from expert analysts could be expressed in a way that clearly explains the factors that influenced the outcome, for example to close or to escalate a case.

INCREASE EFFICIENCY – lower the amount of time analysts and quality supervisors spend on alerted transactions whilst reducing the cost and effect of churn in the analyst population.



SOLUTION

To achieve these goals, the bank implemented the Nasdaq Automated Investigator for AML. The solution takes potentially suspicious alerts generated by existing transaction monitoring systems and fully automates the analysis and assessment phase (Level 1) of the alert disposition process, with decisioning and explanation of a case investigation. The solution can also provide Level 2 investigation, though the filing of a SAR is always handled by the human analysts responsible for this activity.

For each case investigated, there are one of 3 outcome results:

FULLY MITIGATED: There is no need for further investigation by an analyst and the case can be closed.

PARTIALLY MITIGATED: The solution is only able to mitigate some of the transactions. It prioritises where further analyst investigation focus should be and reduces workload.

AUGMENTED: The solution is unable to determine an explanation so the alert cannot be mitigated. These are usually complex or unusual cases that are escalated to L2 analysts with a summary review provided for further investigation.

50-70% of cases typically fall into the 'Fully Mitigated' category. The process handles high volume concurrent alert investigations, 24/7 to dramatically optimise this activity:

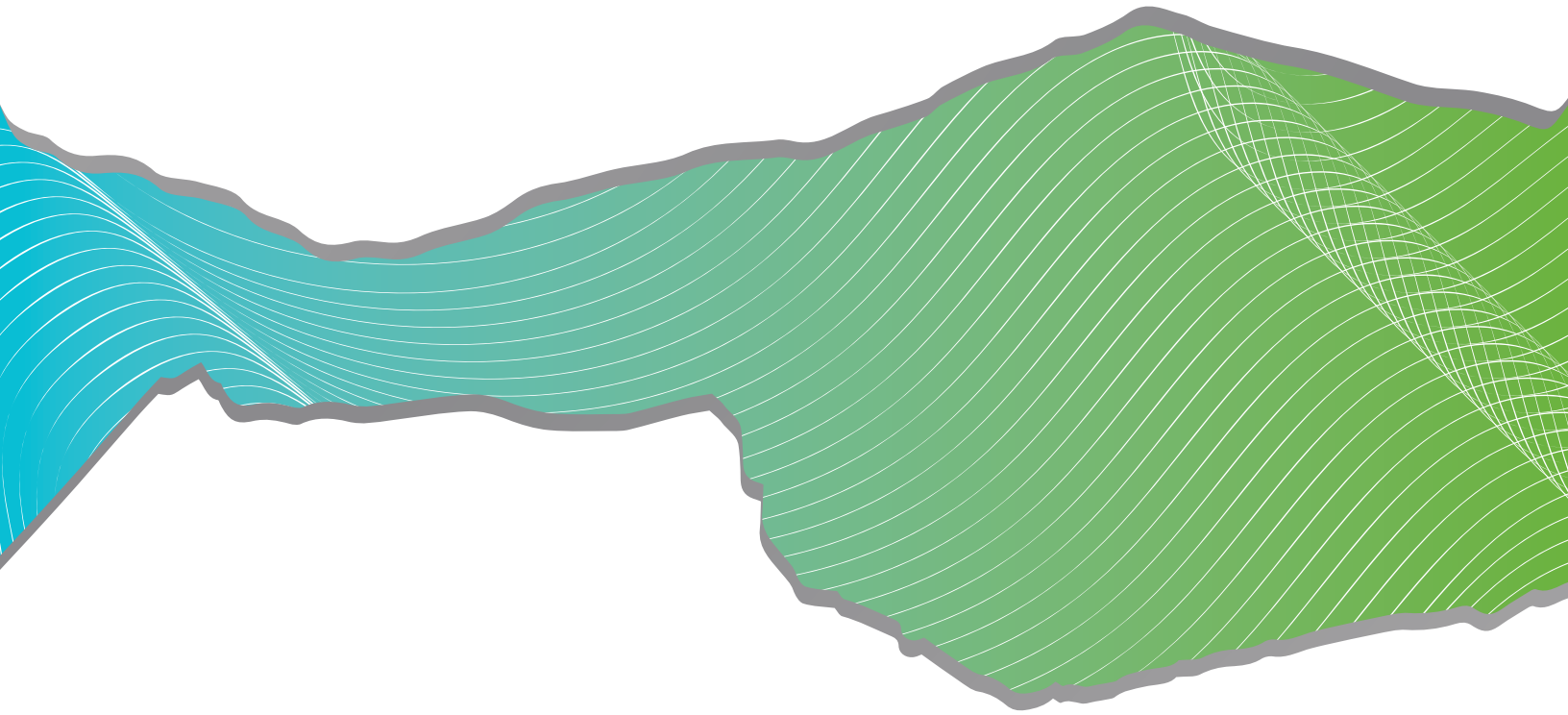
GATHER EVIDENCE – machine Investigator Agents (IA's) access disparate and un-structured customer data sources to gather relevant evidence for aspects of the suspicious alert.

ANALYSE – a combination of rules, supervised and unsupervised machine learning analyses and makes judgement conclusions against each alert case aspect.

DECIDE – the decisioning engine assesses all IA evidence to generate a risk decision in seconds.

EXPLAIN – human readable explanations behind decisions are output directly into the banks CMS to provide rationale and importance of evidence.

RISK GOVERNANCE – inbuilt automated mechanisms and tools ensure a gold standard of ongoing decision assurance, regulatory compliance and continual performance improvement.



OUTCOMES

The bank's trial business unit continued to use human analysts to review every machine investigation but still achieved the following out of the box visible business impact in month two.

The automated AML investigation solution has since been rolled out to multiple global business units and continues to deliver the same if not better results dependent on region.

EFFICIENCY	SPEED	QUALITY
40-60% saving overall on the cost of transaction alert dispositioning	**75%** improvement in productivity (investigations per hour increased to 1.54)	Quality levels significantly raised above minimum **95%** levels to an all-time high close to **99%**

RISK	CONSISTENCY	AUDIT TRAIL
Significant reduction in errors made as compared to existing analyst process with operational risks reduced overall	Reproducible investigation standards with no material variance	Decision narratives in all cases that explain the rationale for the action taken

CONCLUSION

Nasdaq Automated Investigator for AML produced transformational outcomes for this global tier 1 bank. By introducing this unique solution to automate the end-to-end process of an investigation, they were able to replicate and surpass the expert level of human analysts in delivering quality risk decisions.

This is a proven solution for financial institutions seeking to deliver major operational benefits by improving the effectiveness and efficiency of their transaction monitoring systems.