OCBC BANK IS THE FIRST SINGAPORE BANK TO TAP ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING TO COMBAT FINANCIAL CRIME

The use of these technologies will significantly increase the bank's operational efficiency and accuracy in the detection of suspicious transactions

Singapore, 7 November 2017 – On any one typical work day, an OCBC Bank anti-money laundering (AML) compliance analyst would log into the bank's transaction monitoring system and find up to hundreds of potentially suspicious transactions he or she had to review. These transactions are flagged for having fulfilled one of several "rules", such as a sudden large transfer into or out of an account, that the system had been programmed to recognise.

But this rule-based approach means the generation of multiple alerts that the AML analyst has to manually trawl through in order to ascertain which alerted transaction is to be further reviewed for any possible financial crime. This is a time-consuming process that could take days, or even up to a week for particularly complex transactions. Multiply this process across the many days in a month and year for the bank's transaction monitoring team, and the demands of AML monitoring become apparent. This also does not account for the potentially suspicious transactions that the system did not detect because they were not captured under the pre-defined list of rules.

To tackle the increasing scale and complexity of AML monitoring, OCBC Bank is the first Singapore bank to tap artificial intelligence (AI) and machine learning to combat financial crime. The use of these technologies will significantly increase the bank's operational efficiency and accuracy in the detection of suspicious transactions.

OCBC Bank's transaction monitoring team and its Fintech unit, The Open Vault at OCBC, conducted a proof of concept with Fintech company, ThetaRay, which concluded earlier this year. The bank is now in an extended proof of concept and pre-implementation phase, involving advanced testing with additional test data. This allows the bank to further verify the efficacy, security and robustness of the solution while gaining a more comprehensive understanding of its workings and capabilities. Upon its successful conclusion, the bank targets to fully implement the technology, which will run in parallel with its existing transaction monitoring system, in the second quarter of next year.

This Fintech solution uses an algorithm that is not reliant on an exhaustive set of programmed rules to flag transactions for review. Instead of looking at each transaction as a standalone, the algorithm is able to "intelligently" detect anomalies in transaction behaviour by assessing broad parameters, including products, customers and risks; and diverse data sources to arrive at a holistic and contextual data analysis. Furthermore, the software is dynamic and is able to "learn" from or adjust to changes in transaction patterns over time, allowing it to flag suspicious transactions with better precision, as well as discovering new patterns for smarter future detection.

What this means is a reduction in the volume of transactions flagged that are to be reviewed. The technology also has the ability to cluster alerts by risk levels: This increases the accuracy of detecting suspicious transactions as it allows analysts to prioritise the review of higher-risk alerts.

In the proof of concept stage, the technology was used to analyse one year's worth of OCBC Bank's corporate banking transaction data. The findings showed that it was able to reduce the number of alerts that did not require further review, by 35 per cent. Through the categorisation of flagged transactions by their risk levels, the accuracy rate of identifying suspicious transactions, increased by more than four times.

Ms Loretta Yuen, OCBC Bank's Head of Group Legal and Regulatory Compliance, said: "Financial crimes are evolving in complexity and sophistication. Banks play a central role in foiling illegal activity such as money laundering and constantly have to be one step ahead of financial criminals.

This is why we strongly believe in embracing technology and tools that will increase our proficiency in transaction monitoring. We are pleased that we are now able to leverage a Fintech solution confidently to sharpen the detection of suspicious transactions. There is tremendous potential for the application of artificial intelligence and machine learning to review these flagged suspicious transactions. We had announced recently that we are testing Fintech solutions for the review process, which is even more manually tedious. We hope to be able to fully use technology to make the entire AML process efficient, more accurate and secure."

Benefits of applying Fintech to AML transaction monitoring

Beyond helping to improve the accuracy and efficiency of detection, OCBC Bank stands to reap other benefits from its adoption of artificial intelligence and machine learning in its transaction monitoring compliance work:

Better understanding of financial crime

The potential for ThetaRay's technology to detect previously unknown patterns of money laundering promises to deepen OCBC Bank's understanding of financial crime. This would help prevent the bank from running afoul of AML regulations as financial crime becomes more sophisticated.

Upgrading AML compliance analysts to more high-value analyses

As AML analysts are freed up from performing the most basic aspects of transaction monitoring, they will be able to take on more sophisticated and value-added analyses.

The use of technology will also potentially allow OCBC Bank to tap a wider pool of professionals who are qualified to perform its transaction monitoring function – data analysts and scientists for example – thereby easing the crunch in the hiring of AML analysts. This is significant, given OCBC Bank's on-going need to scale up its team of analysts to tackle the increasing volume of AML monitoring.

SOCIAL MEDIA ASSETS

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Keywords:
OCBC Bank, AI, artificial intelligence, machine learning, financial crime, AML, suspicious transactions, fintech

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About OCBC Bank

OCBC Bank is the longest established Singapore bank, formed in 1932 from the merger of three local banks, the oldest of which was founded in 1912. It is now the second largest financial services group in Southeast Asia by assets and one of the world's most highly-rated banks, with an Aa1 rating from Moody's. Recognised for its financial strength and stability, OCBC Bank is consistently ranked among the World's Top 50 Safest Banks by Global Finance and has been named Best Managed Bank in Singapore by The Asian Banker.

OCBC Bank and its subsidiaries offer a broad array of commercial banking, specialist financial and wealth management services, ranging from consumer, corporate, investment, private and transaction banking to treasury, insurance, asset management and stockbroking services.

OCBC Bank's key markets are Singapore, Malaysia, Indonesia and Greater China. It has more than 600 branches and representative offices in 18 countries and regions. These include over 330 branches and offices in Indonesia under subsidiary Bank OCBC NISP, and over 100 branches and offices in Hong Kong, China and Macao under OCBC Wing Hang.

OCBC Bank's private banking services are provided by its wholly-owned subsidiary Bank of Singapore, which operates on a unique open-architecture product platform to source for the best-in-class products to meet its clients' goals.

OCBC Bank's insurance subsidiary, Great Eastern Holdings, is the oldest and most established life insurance group in Singapore and Malaysia. Its asset management subsidiary, Lion Global Investors, is one of the largest private sector asset management companies in Southeast Asia.

For more information, please visit www.ocbc.com.