



# Trends in AML/CFT

2 May 2024

# Agenda

- 01 FATF Mutual Evaluation
- 02 AML/CFT Control Framework
- 03 Global Trends
- 04 Applications of Machine Learning in AML/CFT

# FATF Mutual Evaluation

- **Financial Action Task Force** - inter governmental body established for the development and promotion of policies to combat money laundering and terrorism financing.
- The FATF conducts mutual evaluations on member countries.
- Mutual evaluations have two components on effectiveness and technical compliance.
- The main component of a mutual evaluation is effectiveness. During the on-site visit, the assessment team will assess if the country's measures are working and deliver the right results. Assessment will be made against 11 Immediate Outcomes with ratings of Substantial, Moderate and Low.
- Technical compliance assesses the laws, regulations and any other legal instruments a country has in place to combat money laundering and the financing of terrorism and proliferation. The country will be assessed for compliance with the 40 FATF Recommendations with ratings of Compliant, Largely Compliant, Partially Compliant and Non-Compliant.

# Overview of AML/CTF Components



# Key Regulatory Focus Areas



## Governance

- Tone at the Top
- Clear lines of responsibility
- Active Oversight of AML/CFT regime, risk management and training
- Escalation, deliberation and resolution of AML/CFT issues
- Drive continued enhancements



## Risk Culture

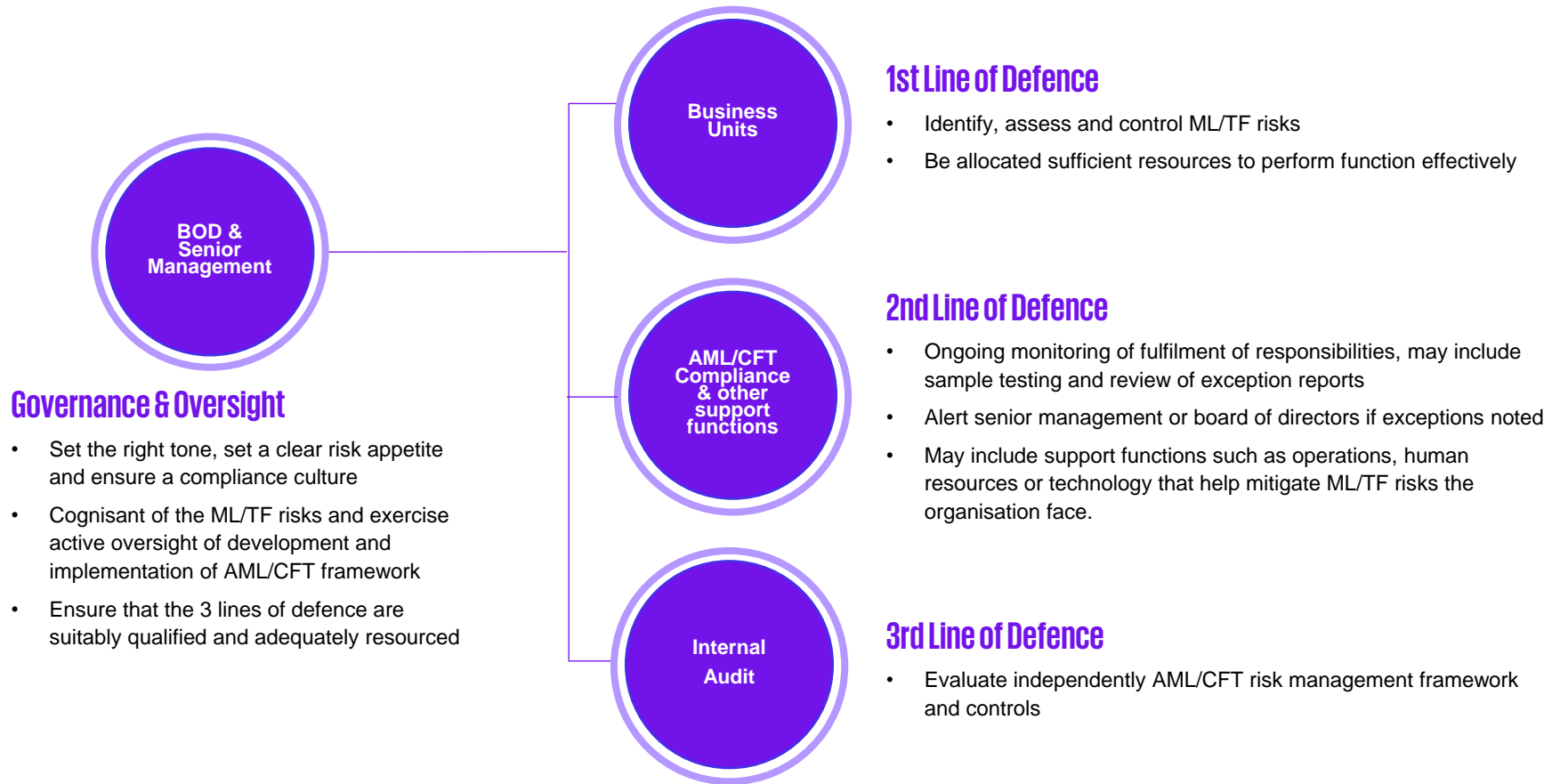
- Understanding of key risks
- Handling of basic and complex issues
- Accountability
- Compliance voice
- Entrenchment of practice and culture



## Implementation

- Alignment of policies and procedures to Notice
- Adherence to internal P&Ps
- Effectiveness of risk assessment and mitigation measures
- Escalation and resolution of red flags
- Resolution of past issues

# Governance and Oversight



# Regulatory Trends / Hotspots for AML/CTF

## FINANCIAL CRIME COMPLIANCE WILL BE PURPOSE-LED

Drive effective outcomes by being purpose led disrupting criminal activity for the good of the organisation customers, and community.

01

## EFFECTIVENESS RATHER THAN TICK BOX COMPLIANCE

Define what success looks like, with flexibility to focus on agreed threats under a risk-based approach.

02

## DEEPER PUBLIC-PRIVATE PARTNERSHIP (“PPS”)

Deliver greater results and disruption of criminal through strategic data sharing using PPS.

03

## NEW WAYS TO KNOW YOUR CUSTOMERS

KYC and CDD remain a core pillar, with shifts towards perpetual-KYC and data-driven real time monitoring.

04

## NEXT-GENERATION FINANCIAL CRIME DETECTION SYSTEMS

Deployment of machine learning and artificial intelligence for complex decision making.

05

## DATA AND TECHNOLOGY WILL UNDERPIN THE FINANCIAL CRIME COMPLIANCE EVOLUTION

Complete, accurate and timely data, with integrated technology solutions supported by a clear strategy.

06

Source: A Paradigm Shift – November 2022

# Machine Learning in Transaction Monitoring

## Transaction Monitoring

FULL LICENSE BANK

# 98.6%

Reduction in false positive alerts  
100% recall

## Client Challenge

❖ The client was facing **high volumes of false positive alerts** in the area of **transaction monitoring**.

## Approach

❖ Use of both **supervised** (based on past STR filed) and **unsupervised Machine Learning (“ML”) models** (clustering and anomaly detection) to detect unusual transactions in customer activities.

## Outcomes

- ❖ **100% recall** of past STRs via supervised ML model.
- ❖ **98.6% overall reduction** of false positive alerts (100k alerts reduced to 1.4k alerts).
- ❖ **Flagged out additional** suspicious customers that were subsequently filed by the bank.
- ❖ Flagged out **almost 50% of the bank’s manual STRs**.
- ❖ In the process of implementation ML models in production environment.

# Machine Learning in Transaction Monitoring

## Full Licensed Bank in Singapore

---

**95%**

Reduction in false positive alerts (112k to 5k alerts)

---

**93%**

Recall of past STRs from TM via supervised ML model (141 of 152 STRs)

---

**140**

Additional suspicious customers flagged by the ML models (1.8x more than current TMS)

## Private Bank in Singapore

---

**86.5%**

Reduction in false positive alerts (average 897 alerts/month to 148 alerts/month)

---

**100%**

Recall of past STRs from TM via supervised ML model

---

**100%**

STR from KYC Review were flagged by the supervised ML model

## Insurance Company in Singapore

---

**85.96%**

Reduction in false positive alerts

---

**100%**

Recall of past STRs from TM via supervised ML model (185 of 185 STRs)

# Machine Learning in Transaction Monitoring

## Client Challenge

- ❖ The client was facing **high volumes of false positive alerts** in the area of **sanctions/transaction screening**.

## Approach

- ❖ KPMG's full ML approach model developed by KPMG to classify sanction alerts generated from payment filtering systems.
- ❖ Developed more than 50 features, trained and tested multiple supervised machine learning models.

## Outcomes

- ❖ The model was able to classify false positive with high accuracy and potentially replace the first level alert reviewer of the bank.
- ❖ At **99.95% confidence level**, the ML model was able to achieve an **accuracy score of 99.99%** to correctly classify **72.9% of alerts**.

**Sanctions**

FULL LICENSE BANK

**830,000/year**

Alerts accurately classified by the model



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

The KPMG name and logo are trademarks used under license by the independent member firms of the KPMG global organization.

© 2024 KPMG Services Pte. Ltd. (Registration No: 200003956G), a Singapore incorporated company and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

**Document Classification: KPMG Confidential**