Thematic Review of AI's Transaction Monitoring Systems

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Background

Thematic Review of AI's Transaction Monitoring Systems (TMS)

- **Scope:**
  - Focus on end-to-end process of design, implementation and optimization of TMS
  - Cover data quality, detection scenario and threshold settings of TMS
- **Objective:**
  - To assess the effectiveness and efficiency of the TMS

Observations and good practices

1. **Management oversight and risk assessment**

2. **Data governance and testing**

3. **System design and configuration**

4. **System output testing**

Observations and good practices

1 Management oversight and risk assessment

- **Management oversight**
  - Oversee the lifecycle of TMS, from development, implementation to ongoing enhancements, including Regtech adoption
  - Communication and collaboration between relevant stakeholders

- **Risk coverage assessment**
  - Foundation of risk based approach in TMS
  - Consider ML/TF risks of products and services and emerging ML/TF typologies
  - Determine sufficiency of TMS coverage

- **Key Performance Indicators**
  - Monitor the effectiveness and efficiency of TMS

Observations and good practices

2 Data governance and testing

- **Identification of Critical Data Elements**
  - Fundamental process to implement an effective TMS
  - Identify all key data points such as customer attributes and transaction details from relevant systems

- **Data quality test**
  - Ensure completeness and accuracy of data
  - Conduct regular data reconciliation

Observations and good practices

3 System design and configuration

- **Detection scenario**
  - Based on risk coverage assessment
  - Ensure sufficient coverage of products and services

- **Thresholds setting and tuning**
  - Critical for TMS to identify unusual transaction for further investigation
  - Use quantitative analysis to set the thresholds (e.g. mean, standard deviation and percentile of historical transaction data)
  - Conduct above-the-line and below-the-line tests to fine-tune the thresholds

- **Customer segmentation**
  - Divide customers into groups based on their characteristics or behaviours (e.g. occupation and business nature, transaction volume, geographical location)
  - More targeted monitoring with higher-quality alerts

Observations and good practices

4 System output testing

- **Functional test**
  - Assess whether the TMS are performing as expected
  - Identify potential issues in TMS
  - Conduct as part of TMS regular review

Tips for Regtech Adoption

Tips for Regtech Adoption

- **Plan your Regtech adoption journey**
  - Conduct proper assessment to identify and prioritise opportunities
- **Controls over change management**
  - Project taskforce to oversee the project and facilitate coordination
  - Conduct parallel run to ensure the appropriateness of Regtech solutions
- **Ensure data quality**
  - Accuracy and performance heavily depend on the data used to train the models (e.g. artificial intelligence and machine learning)
- **Post-implementation and ongoing review**
  - Ensure Regtech solutions are working as intended and remain relevant

Thank you