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Introduction
In response to industry demand for an update to the 2014 survey, EY is pleased to present the results of EY 2018 survey on Anti-money laundering (AML) Transaction Monitoring (TM). This survey brings together insight from AML TM professionals across EMEIA financial institutions. While the 2014 survey focused largely on UK banks, this survey includes additional representation from France, Switzerland, the Nordics and MENAT. The survey ran during Q4 of 2017 following a TM roundtable hosted by EY for the participating banks. Interviews were conducted directly with the participants, with comments and discussion topics also captured.

Key Findings
Since the 2014 survey on AML TM, regulatory pressure has been maintained and banks have continued to invest significantly in improving their AML controls, with TM being a priority. From the 2018 survey, four overarching themes emerge:

1. Low SAR filing rates remain prevalent with considerable sector variations

Conversion rates of alerts to Suspicious Activity Reports (SARs) have not improved since 2014. What also emerges is an increasing difference between sectors like Retail Banking and Corporate and Markets sectors. Retail banking on the whole has effective, although inefficient, TM systems compared to the largely ineffective TM systems of the Corporate and Markets sectors. In particular, we have seen that it is common in the Markets sector to have no alerts from a TM system that result in a SAR filing for an entire year. There is a growing view that a fundamentally different approach is needed.

2. Institutions are more methodical in their approach to detection

Compared to 2014, there is now a developing consensus on the standards to be achieved. While there is still variation across organizations, there is now much more methodology underpinning most TM system configurations and TM operations.

3. Maturity varies across institutions, largely due to regulatory scrutiny and levels of investment

While most organizations have matured, there is a growing gap between multinational banks who have experienced direct regulatory scrutiny and invested heavily as a result, and the regional retail banks who are more focused on getting the basics right.

4. Low satisfaction of TM across financial institutions

Overall satisfaction with TM has not improved since the 2014 survey. Despite the investment and the improved maturity, the targets have moved: expectations, both internally and externally, are now higher.
Participation

► The survey was targeted at compliance leaders involved in AML TM. Additional data points were captured from technology and operations representatives.
► A range of business sectors from retail banking to markets were represented (Figure 1).

Some participants were the same as 2014 but, notably, in the 2018 survey, there were significantly more new contributors from different sectors. Where results are comparable, 2014 responses have been included within this report.
► In the majority of cases, responses represent European, rather than global, operations.
2 | Detailed analysis
Detailed analysis

The following pages provide a detailed analysis of the survey responses. They have been categorized into eight overall findings:

**1. Low SAR filing rates remain prevalent with considerable sector variations.**

Between the survey of 2014 and now, overall alert quality generated by monitoring systems remains relatively consistent, albeit poor. Overall, we saw a negligible change in the average SAR rate across all respondents since the 2014 survey. The survey also reviewed the SAR rates split by sector of the participants. Retail institutions showed the highest SAR rate at 14% average, with Markets institutions reporting the lowest at 0.2%. Quality issues were consistently highlighted in survey responses from Markets institutions. Figure 2, which gives a breakdown of alert quality by sector, shows areas where alert quality issues are particularly acute.

![Figure 2: Average alert quality by sector](chart.png)

- Not escalated beyond initial triage investigation and not worthy of being raised
- Alerts incorrectly raised through data errors
- Worthy of investigation, but not escalated further
- Result in a suspicious activity report (SAR)

The responses evidence the unanimous messaging received during the survey that the quality of monitoring output generated from the incumbent generation of TM systems is poor. The general consensus is that rules-based monitoring is largely ineffective for certain sectors, notably Markets.
2. Institutions are more methodical in their approach to detection.

Despite the issues outlined, institutions are becoming more structured and formalized in their approaches to development and maintenance of their detection capability. From the results in Figure 3, we can see that in 2014, the majority of respondents indicated that they had no standard approach for scenario development and maintenance. Since then, institutions have adopted more controlled approaches, with over 70% of respondents indicating that their scenario library is formalized and directly aligned to their inherent AML risk assessment. Over 60% of respondents said they had a dedicated analytics team developing and modifying rules based on identified risks.

**Figure 3 – How are your TM scenarios developed and maintained?**

- Interactive “What-if” analysis available to test scenarios: 20% in 2018, 5% in 2014
- Rapid development and deployment of new detection scenarios based on money laundering intelligence and typology analysis: 47% in 2018, 10% in 2014
- Dedicated analytics team develop and modify rules based on identified and developing risks formalized/recommended by an Financial Intelligence Unit: 68% in 2018, 30% in 2014
- Scenario library formalized and aligned to directly mitigating inherent AML risk assessment: 74% in 2018, 30% in 2014
- No standard approach: 50% in 2018, 16% in 2014
Responses also showed that account-level alerting still dominates monitoring solutions. Consolidated single-customer-view monitoring does occur, however this mainly appears to be limited to relatively smaller institutions without considerable global reach or line of business complexity. Figure 4 shows the breakdown of responses when asked about the level of alerts created.

**Figure 4 — At what level are alerts created in your monitoring system?**

- Alerts are created at an account level: 53%
- Alerts are created for a single customer within the line of business and country: 37%
- Alerts are consolidated for a single customer across business lines within the same country: 21%
- Alerts are consolidated for a single customer across business lines and countries: 42%
- Other: 5%
The industry is also witnessing a growing homogeneity in the selection of detection scenarios and their coverage of typical money laundering typologies. As shown in Figure 5, when we issued participants with a list of common typologies used across the industry, we found that at least 10 typologies were in use by over 50% of the survey respondents.

**Figure 5 — Which of the following scenarios do you use in your TM platform?**

- Sequence of events: 11%
- Unusual use of currency: 11%
- Unusual purchase and/or sale of shares: 16%
- Nested accounts: 16%
- Account used as pass through: 16%
- Use of multiple jurisdictions: 16%
- Frequent changes to client data: 16%
- Redeeming products instantly or within a short period of time with an apparent disregard for fees: 21%
- Unusual use of cheques: 21%
- Unusual use of debit card: 21%
- Excessive use of online payment systems: 26%
- Excessive ATM activity: 32%
- Circulation of funds: 37%
- Use of dormant account: 47%
- Large scale use of cash: 53%
- Excessive cash/cash equivalent transactions: 53%
- Structuring: 53%
- Movement of funds: 53%
- Change in behavior relative to peer: 53%
- Change in account behavior: 53%
- Unexpected account usage: 53%
- Patterns of fund transfers between multiple accounts: 63%
- Branches located in areas associated with terrorism or financial crime: 63%
- Excessive fund transfers: 68%
- High risk factors: 79%
When these responses were broken down further by sector, we found that the top 15 scenarios by number of responses are used fairly evenly between the Retail and Corporate sectors. Wealth and Markets are less consistent with their coverage, however all four sectors provide at least some level of coverage across all 15 scenarios apart from Excessive use of Online Payment Systems and Use of Dormant Account.

Figure 6 — Responses by sector to the question ‘Which of the following scenarios do you use in your TM platform?’
Additionally, there is a growing trend which is witnessing more statistical rigour entering institutions’ approaches to optimization. More formal methods are being adopted, with documented risk tolerances that guide risk management. When asked what tools and techniques are often used to tune and optimize TM scenarios, the most popular responses show a defined commitment to optimization:

- Tuning targeted based on specific customer segments
- Parameters agreed with compliance and business teams
- Dedicated optimization team
- Above the line (ATL) and below the line (BTL) testing and tuning using productivity reports and/or sampled investigations

The biggest difference witnessed in the responses between 2014 and 2018 is the use of statistical analysis to demonstrate effectiveness to third parties. While only 9% of respondents selected this option in 2014, 63% of respondents selected this option in 2018. This reflects the increased regulatory scrutiny under which institutions find themselves and their requirement to evidence the analysis undertaken in order to optimize detection.

**Figure 7 — What tools and techniques do you use to tune and optimize your TM scenarios?**

![Bar chart showing the percentage of respondents using different tools and techniques for tuning and optimizing TM scenarios.](chart)

- Tuned for coverage and alert volumes: 55% (2018) vs 42% (2014)
- Tuning is targeted based on specific customer segments: 55% (2018) vs 74% (2014)
- Parameters agreed with compliance and business teams: 45% (2018) vs 84% (2014)
- Dedicated optimization team: 27% (2018) vs 63% (2014)
- Above and below the line testing and tuning using productivity reports and/or sampled investigations: 36% (2018) vs 74% (2014)
- Statistical analysis to demonstrate the effectiveness to third parties: 9% (2018) vs 63% (2014)
- A documented risk tolerance statement to guide the setting of thresholds: 0% (2018) vs 42% (2014)
- Other (please specify): 5% (2018)
3. Maturity varies across institutions, largely due to regulatory scrutiny and levels of investment.

The majority of institutions have indicated that they will either increase or significantly increase their future expenditure on AML TM over the next year. 74% of respondents, or three in four institutions, will be increasing TM related expenditure in the next financial year. This increased expenditure is indicative of increasing pressure and higher standards being applied by regulatory bodies which is not subsiding as capabilities mature.

**Figure 8 — Excluding operational costs, in the next financial year, do you expect your spending related to TM to increase, decrease or stay the same?**
That said, a number of institutions have indicated that they will maintain current expenditure levels. These institutions have reached a level of maturity which means that maintaining current expenditure levels is appropriate, based on either significant previous or existing expenditure levels. The majority of these organizations have invested in very large transformation programs previously and are moving to a steady state, even as new TM techniques and technologies emerge. Only 5% of respondents indicated that they would be decreasing TM expenditure over the next financial year.

The responses seem to suggest that the current cycle of increasing TM spend shows no sign of passing: we think this is due to increased appetite to invest in more advanced technology as well as ongoing regulatory pressure.

4. Low satisfaction with TM across financial institutions.

Figure 9 shows that overall satisfaction with TM has not improved since the 2014 survey. Feedback collated during an EY roundtable with survey participants centred on the opinion that, despite the investment and the improved maturity of TM capabilities, the targets have moved: expectations, both internally and externally, are now higher.

![Figure 9 - How satisfied are you with the overall effectiveness of your AML Transaction Monitoring (TM) solution(s)?](image-url)
5. Established TM vendors still dominate the technology landscape.

Another finding which arose from EY survey is that the vendor landscape for our respondents still remains dominated by the same suppliers, specifically Nice Actimize, Oracle and BAE Systems. A number of institutions made note of upgrade projects to move onto the latest software versions of these products, however few chose to change vendor.

The constancy of the incumbent TM software vendors is likely due to the considerable cost associated with large transformation programs that have large data extraction and mapping elements, resulting in a high barrier to change.

As shown in Figure 10, internally developed monitoring systems remain a popular choice.

The balance of other vendors in the monitoring space is predominantly made up of software vendors who supply industry specific solutions or solutions that are mandated by a specific jurisdiction.

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**Figure 10 – What vendor TM system(s) do you use?**

- NICE Actimize (SAM) 20%
- NICE Actimize (Monitor) 20%
- Oracle (Mantas) 20%
- Internally developed system 13%
- SAS AML 3%
- Other 17%
- BAE Systems (Norkom) 3%
- BAE Systems (Net Reveal) 3%
6. Considerable and growing investment in other non-rules based technologies, such as advanced analytics.

Some institutions are beginning to implement detection mechanisms using alternative approaches to rules-based monitoring. Some of these approaches are specific to a certain typology or detection pattern, for example, upstream custom analytics for money mule detection. However, a minority have developed more generalized anomaly detection mechanisms that are more broadly applied.

When questioned about the use of other advanced techniques, respondents’ answers suggest that permanent or mature solutions are not yet in place, with several respondents suggesting pilot phases were still ongoing.

Figure 11 – Are you using any other advanced techniques to detect money laundering beyond the use of traditional rules?
We saw good coverage of the technologies we listed in EY’s survey, with a consistently high level of investments prevalent throughout. As can be seen from Figure 12, five out of the six technologies listed are being invested in by at least 58% of respondents. As could be expected, larger institutions with significant resources and funding are investing across all areas in order to improve efficiency and effectiveness gains from a combination of technologies and techniques. The majority of smaller institutions on the other hand, are more targeted in their technology investments, often investing in no more than two of the listed technologies. This suggests that there is a correlation between the maturity and scale of an organization, and the technology investment strategy which is deployed to improve efficiency and effectiveness of TM systems.

The technologies which are being most heavily invested in are focused on improving alert investigation efficiency, with over two thirds of respondents investing in Robotic Process Automation (RPA), secondary analytics and decision support. There are a number of factors behind this, with the most compelling reason being that cost-saving continues to be the key driver behind spend in the financial crime domain, with many respondents actively managing increased spend.

**Figure 12 – Have you, or are you planning to, invest in any of the following technologies?**

- **Robotic Process Automation**: 68%
- **Secondary analytics (i.e., using additional analytics on top of your existing TM system to risk score or auto-close alerts)**: 74%
- **Decision support (i.e., providing additional information and risk analysis to enable alert investigators to make quicker decisions)**: 68%
- **Detection using non-standard rule-based solutions**: 58%
- **Entity resolution (i.e., using matching algorithms to create a single customer view)**: 58%
- **Social Network Analytics used to support investigations**: 42%
- **Other [free text]**: 26%
7. Increasing consistency in the investigation process.

The investigation process that institutions apply to the output of their monitoring solutions appears more consistent, with many elements of the investigation process becoming more common. In comparison with the 2014 survey, all survey respondents now have a standardized investigation process.

The use of a tiered investigation process is increasingly popular with many participants delineating a Level 1 or initial process to filter out any obvious false positives, followed by a more detailed Level 2 process where more interesting cases are investigated further.

Figure 13 shows an increasing use of Financial Intelligence Units (FIUs) in specialist cases. This has increased significantly from 2014, which is likely due to more institutions establishing these specialized units.

Of particular interest is the number of institutions now attempting to automate parts of their investigation process. In their responses, a number of institutions identified initiatives in Robotic Process Automation (RPA) to assist investigators procuring data more quickly and consistently.

**Figure 13** Which of the following best describe your investigation process/workflow?

- **Financial Intelligence Unit involvement in specialist cases**
  - 2014: 0%
  - 2018: 45%

- **Parts of the investigation process/workflow are automated (if yes, then please describe)**
  - 2014: 0%
  - 2018: 42%

- **Suspicious cases passed back to individual lines of business for further analysis, e.g., Relationship Managers**
  - 2014: 0%
  - 2018: 20%

- **Suspicious cases passed on to specialist Level 2 team for further analysis**
  - 2014: 0%
  - 2018: 47%

- **Alerts initially investigated by generalist Level 1 team to gather information and filter obvious false positives**
  - 2014: 0%
  - 2018: 73%

- **End to end investigation by a single investigator**
  - 2014: 0%
  - 2018: 26%

- **No standardized investigation process**
  - 2014: 0%
  - 2018: 18%
The distribution of activities amongst investigation teams showed that the majority of investigators performed initial review processes in order to eliminate obvious false positives. This activity represents a considerable portion of time spent, leaving just 22% of activities on investigations into suspicious activities and 7% on supporting regulatory filings where necessary.
Another trend identified in the survey results is the tendency to adopt more integrated investigation platforms and a significant reduction in manual investigations being performed, from 50% to 5%. Figure 15 below shows that the use of disparate investigation platforms across geographies and divisions has dropped from 33% to 16%, with 26% of institutions using a single platform for Transaction Monitoring. It is interesting to note that there has been a large increase of institutions using a TM investigation platform with no case management, indicating increasing reliance on dedicated TM platforms.

Figure 15 – Which of the following describe your investigation platform for AML alerts?

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual investigations</td>
<td>50%</td>
<td>5%</td>
</tr>
<tr>
<td>TM investigation platform with no case management</td>
<td>17%</td>
<td>42%</td>
</tr>
<tr>
<td>Disparate investigation platforms in use across geographies and divisions</td>
<td>33%</td>
<td>16%</td>
</tr>
<tr>
<td>Automated case creation from high priority alert sources</td>
<td>25%</td>
<td>16%</td>
</tr>
<tr>
<td>AML alert data ingested into integrated investigation platform e.g., TM, sanctions and filtering</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>Single case investigation platform for all Financial Crime activity</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>Single case investigation platform for Transaction Monitoring (*question not asked in 2014)</td>
<td>0%</td>
<td>26%</td>
</tr>
</tbody>
</table>
8. Regulator interaction varies depending on the size of the financial institution and the level of scrutiny applied.

Over 90% of respondents have some level of interaction with their local regulator and this varies from occasional interaction to leading in TM-related regulator interactions.

Figure 16 shows that 24% of respondents, some of the largest who participated in this survey, lead the debate around TM in their jurisdiction. It is clear that the largest and most influential organizations are heavily engaged with their regulator, which is a natural development given the scale, breadth and maturity of these organizations.

Forty four percent of organizations are less engaged with their regulator, but do reach out occasionally when guidance and support is required. This grouping is a mixture of small and large organizations, with large organizations taking a less prominent role in TM-related discussions with their regulator than might be expected.
3 | Conclusion
Conclusion

In summary, the results of the 2018 survey show that our respondents believe they are progressing in their journey to more efficient and effective automated monitoring. However, the fundamental challenges of current approaches are now better understood: rules-based monitoring and the subsequent high-volume investigations, is not an effective way to manage financial crime risk.

In the 2014 survey, we observed respondents making investments in resource and technology to support their rules-based systems, e.g. creating rules libraries and optimization methodologies. The 2018 survey sees increased focus on the use and application of advanced analytical approaches in order to drive improvements.

Glancing forward, we anticipate this trend of investment in alternatives and enhancements to continue. Today we see that institutions are more methodical in the way they manage their TM systems. We expect this to expand to the application of advanced analytics, with improved model risk management techniques forming a more canonical approach.

The lifecycle of maturity

The conclusion of the 2014 survey introduced the concept of a lifecycle of maturity. It proposed six stages of maturity (see Figure 17 below), of which most institutions that responded aligned to Stage 3.

We took another look at the maturity lifecycle for the 2018 survey, asking our respondents to place themselves on the maturity lifecycle. Interestingly, the majority of respondents placed themselves at Stage 3 in the model, with slightly fewer placing themselves at Stage 4. This would appear to suggest that many institutions are observing considerable increases in operational costs, what we would typify as Stage 3.

Over the next few years, there is set to be substantial continued investment in TM. We look forward to seeing the results of this in our next survey.

Figure 17 – Where would you place your TM on the following maturity model?
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For readers with further questions or interest in understanding the more detailed aspects of EY survey, please contact Matt Reed or Becky Marvell.
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