

White Paper

UNLOCKING AUTOMATION IN AML INVESTIGATIONS

EXAMINING THE VIABILITY OF AUTOMATING RISK ASSESSMENTS
IN ANTI-MONEY LAUNDERING PROGRAMS AND WHY SOME THINGS
WILL NEVER BE AUTOMATED

Booz Allen's Financial Crime Solutions team has produced this paper to explore the value and the inherent limitations of automation within anti-money laundering. This paper also includes a practical approach to automating aspects of AML investigations.



Rapid expansion of head-count

In lieu of regulatory violations and heightened compliance requirements, AML programs have increased staffing levels to unprecedented levels.

Examining the viability of automation

Due to the nature of AML investigations, human analysis will always be required in assessing potential money laundering risk.

What can be automated?

By examining the sub-processes of AML investigations, we can identify aspects of the investigative process which can be automated.

The future state of AML

As technology continues to advance and automation becomes more of a reality, AML programs will evolve and the role of analysts will change.

RAPID EXPANSION OF AML PROGRAM HEAD COUNT

Increasing bank enforcement actions

In 2014, the total monetary settlements levied by OCC, FDIC, the Federal Reserve, FinCEN, OFAC, and the U.S. Justice Department exceeded \$13.4 Billion¹. This total amount is representative of the increased trend in enforcement actions along with the severity of these actions.

Most large financial institutions have found themselves on the receiving end of these regulatory enforcements despite their efforts to bolster AML programs and controls. These enforcement actions result not only in painful fines, but also reputational damage for the institutions and in some cases personal risk exposure for risk-officers who have stewardship over these programs.

The inclination to hire more analysts

In response to this trend of increasing enforcement actions, most financial institutions have responded by rapidly expanding the head-count within their AML Programs. Headlines in the industry include stories of institutions hiring thousands of analysts. Top financial institutions are engaged in a head-hunting free-for-all trying to find experience AML experts. At Booz Allen, we have witnessed many institutions expanding the size of their head-count by over 500% in the past few years.

This rapid expansion of AML programs has led to many self-perpetuating problems:

- **Lack of Efficiency / Increased Cost of Compliance-** As many programs have grown from hundreds to thousands of analysts, institutions have seen the cost of compliance soar. Companies often resort to looking for ways to control cost, adjusting their risk models through tuning transaction monitoring systems and in the process of doing so, exposing themselves to new risk.
- **Lack of Uniformity-** With large teams of analysts comes large variability in the skill-sets. The mature experience of some analysts allows them to conduct superior investigations while others that lack experience may more likely miss critical risk-indicators. This disparity opens the institution up for risk.
- **Human Error-** Naturally, as AML investigative processes rely so heavily on human investigation, increases in head-count will result in increases in human-error and potentially insider threat exposure.

WITH THESE CHALLENGES IN MIND, WE WILL EXAMINE THE FEASIBILITY OF AUTOMATION WITHIN THE FIELD OF ANTI-MONEY LAUNDERING

EXAMINING THE VIABILITY OF AUTOMATION IN AML INVESTIGATIONS

The difference in the way machines and humans process information

Despite all of the advances in technology and artificial intelligence over the past decade, the human brain still triumphs over the machine when it comes to critical thinking and complex decision making. Computers may be great at calculating the square root of a large number or even helping you find an indexed web page among billions of options, but the types of decisions involved with risk and compliance are different. These decisions require more complex variables and a human element that can contextualize these variables before making a decision.

Why humans are required for AML investigations

Humans will always be required for AML investigations. We will never be in the position to replace an experienced AML expert's risk assessment with some kind of computer decision making algorithm. Even the most complex algorithms cannot account for the lifetime of experiences that AML analysts possess.

An experienced AML analyst has been privy to hundreds of case investigations and has almost a subconscious ability to detect risk typologies. Outside of AML subject matter expertise these analysts understand human nature and behavior and can more easily detect anomalies in that behavior.

For these reasons and more, we assert that human analysis will always be required for AML investigations.

But is it possible to reduce some of the routine activities that these analysts execute as part of these investigations in order to focus them more on this analysis itself? In order to answer this question, we must analyze how these analysts execute investigations. We must see where they spend time.

DUE TO THE NATURE OF AML
INVESTIGATIONS, MANY AML PROCESSES
CANNOT BE AUTOMATED AND WILL
ALWAYS REQUIRE HUMAN INVOLVEMENT



A TIME STUDY INTO HOW AML ANALYSTS SPEND THEIR TIME REVEALS OPPORTUNITY FOR AUTOMATION:

While each financial institution deploys their financial crime program in a different way, there is commonality in the types of processes that most institutions maintain. Most AML programs will have KYC processes, on-boarding processes, monitoring processes, and investigation processes. These processes vary but if we identify a common pattern across the processes, we find that they all typically involve the following steps:

1. Data collection- most financial institutions have defined operating procedures that analysts follow for each investigation or due diligence review. These procedures typically call for the analyst to conduct searches on a variety of data sources and search engines (e.g. Worldcheck, Bridger Insight, Factiva, Google, etc.) The objective of this step is to collect additional information about the subject of the investigation including negative news, watchlist matches, and network risks.

75%
of the
Analyst's Time

2. Organization and data entry - once analysts find the information that they are looking for, there is the matter of data entry. Again, the way that this is done will vary depending on the type of process but in many cases it involves uploading documents to a case management tool, copying and pasting information from a browser, and/or leaving extensive notes. This is an important step for keeping a compliant audit trail.

15%
of the
Analyst's Time

3. Assess risk and compose report- This final step involves synthesizing the collected information, considering possible risk factors, determining the appropriate action or disposition, and composing a final investigation report. This step requires significant training and understanding of AML risk typologies.

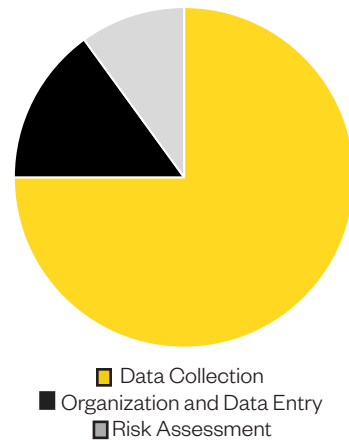
10%
of the
Analyst's Time

KEY TAKE AWAYS FROM THIS TIME STUDY

Once again, the above mentioned steps may over-generalize the steps involved in various financial crime related investigation processes, however, this generalization also helps us to identify areas of inefficiency and opportunities for automation.

From this generalized time study, we can detect that step 1 “Data Collection” and Step 2 “Organization and Data Entry” are relatively redundant exercises driven primarily by operating procedures. These types of processes are ripe for

automation. Inversely, Step 3 “Assess Risk and Compose Report” requires heavy analytical human intervention and therefore would not be a good candidate for automation. Data collection and organization can be automated using currently available technological capabilities. This automation will allow institutions to define their standard procedures for negative news searching, network analysis, and watchlist / PEP screening and then allow the technology to automatically-search and return relevant information.



AUTOMATION IS WITHIN REACH

One of the largest transitions that AML will see in coming years will be a movement away from hiring thousands of analysts in favor of automation. Automation of data collection and data organization is a logical place to begin this optimization as it comprises up to 85% of an analyst's time.

Not only does this automation drive efficiency and cost reduction, but it also creates uniformity in the way that data is collected. It allows institutions to define standard procedures for due diligence collection which in turn becomes the automated collection protocol.

With the automation of the data collection step, analysts will be free to spend more of their time doing what humans excel at- risk analysis. The analyst will simply be able to view the aggregated data on his or her screen and make a risk assessment.

FINANCIAL CRIMES TEAM

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