AML modernization with AI

Key steps for modernizing KYC, transaction monitoring, and sanctions screening to effectively reduce risk, increase efficiency, and contain costs

Capgemini

Financial institutions have long struggled with the challenge of establishing and maintaining a Financial Crimes Compliance (FCC) program acceptable to supervisors and regulators, while also ensuring that it maximizes productivity and is both cost-efficient and client friendly.

Tapping innovation to counter FinCrime

There are numerous elements required for sufficient anti-money-laundering (AML) and sanctions compliance processes, including a comprehensive, enterprise-wide risk assessment; meeting the traditional four pillars of AML compliance (internal controls, independent testing, training, and sufficient resources for the AML Officer); developing a sound governance framework (such as comprehensive written policies and procedures, risk committees, and metrics), and establishing a proper culture of compliance. But the foundation is comprised of three critical, complex, resource-intensive, and expensive processes—Know-Your-Customer (KYC), Transaction Monitoring (TM), and Sanctions Screening.

Investigative analysts who work on these three processes are forced to deal daily with the arduous, unwieldy task of collecting and entering data from multiple internal and external sources, evaluating the data, assessing risk, disposing of a large number of false positive alerts, and narrative writing. But when the invariable problems and process breakdowns arise, continuously allocating additional human resources is not the answer. Rather, the solution is incorporating advanced AI-based tools, which helps ensure a satisfactory FCC program that keeps up with industry standard and best practices. Automating elements of KYC, TM, or screening alert analysis is like hiring a bevy of employees who are immediately productive, work at high speed, never get tired, and are available 24/7. The degree of automation and reduction of manual processes provides an opportunity to reassess delivery operating models including nearshore, offshore or outsourcing models traditionally utilized by the organizations.

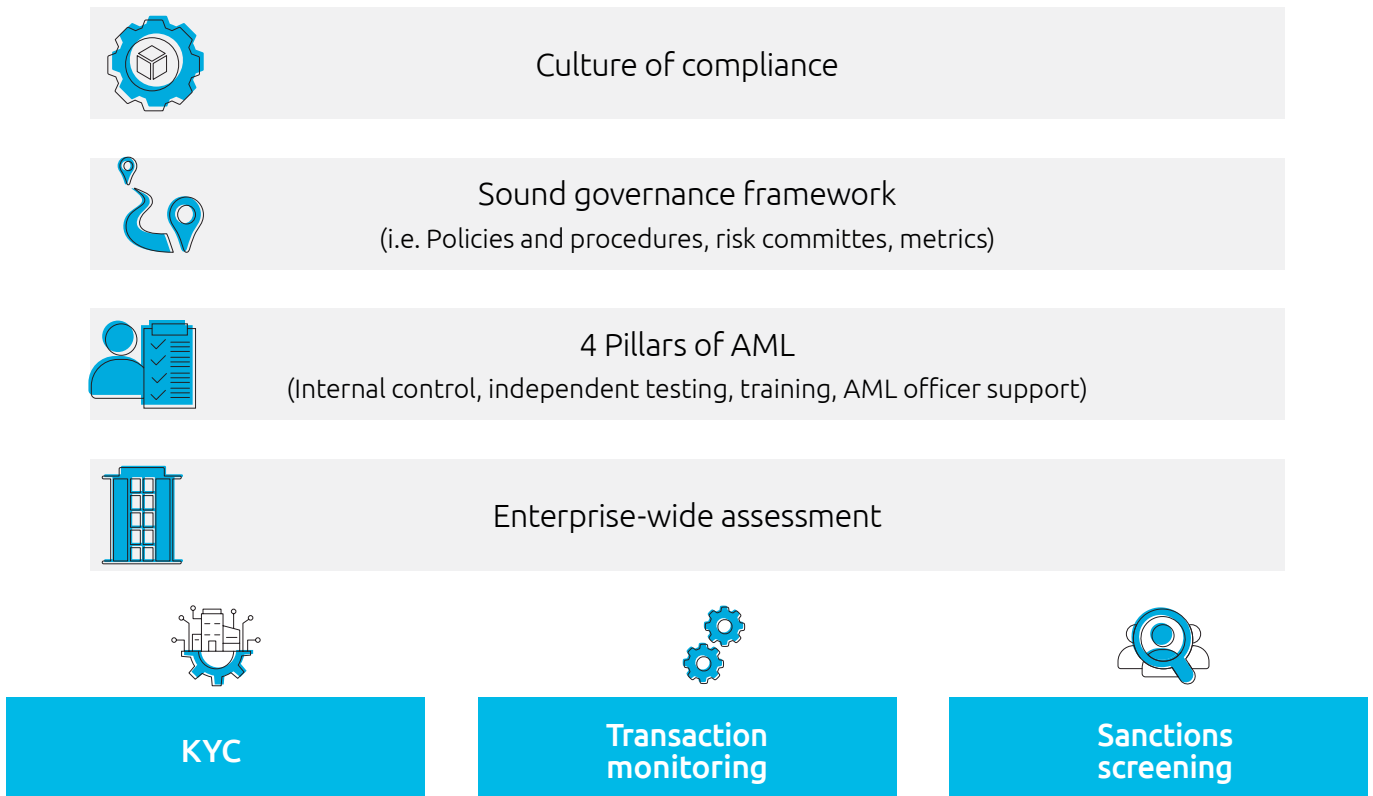Indeed, the potential benefits of modern tech tools are vast, including:

- Greater speed, accuracy, and capacity
- Their continuous, real-time nature
- Expediting document production and retention
- Generation of detailed reports and audit trails that facilitate regulatory compliance and simplify the reporting process to relevant authorities
- Ability to maximize human productivity.

Moreover, generative AI, which refers to a wide range of AI systems that are trained on vast amounts of data to generate new content and encompass various technologies such as large language models, has the potential to create enormous value for FCC systems, particularly when there's a lot of unstructured data to be considered, parsed, and summarized. Indeed, regulators have strongly encouraged financial institutions to embrace innovation in their FCC programs, so long as certain key elements are present such as explainability, accountability, and transparency, and continued satisfaction of regulatory obligations.

In this POV, we briefly review the key aspects of enhancing KYC, TM, and sanctions screening through innovation.

Figure 1: Essential elements of a traditional AML program

Culture of compliance

Sound governance framework
(i.e. Policies and procedures, risk committes, metrics)

4 Pillars of AML
(Internal control, independent testing, training, AML officer support)

Enterprise-wide assessment

KYC

Transaction monitoring

Sanctions screening

Source: Capgemini

Step up to continuous KYC

Traditionally, KYC has been conducted in a static, point in time, "nonintelligent" manner, with financial institutions evaluating customers only periodically, based on risk rating (low, medium, or high) and isolated major trigger events such as a SAR being filed or a Section 314 request being received. These outdated practices carry high operational costs, are plagued with data inconsistencies and manual errors, are rife with poor customer experience, and place the financial institution at risk of alert and SAR backups. Even more importantly, they allow a high-AML-risk situation—in particular, customers who move from low risk to high risk in a short period of time—to remain unnoticed for months or even years, until the next review occurs. Regulators increasingly are challenging banks on the accuracy of their risk ratings, with egregious situations leading to major remediation requirements that are costly and time consuming.

Industry standard has shifted to using AI-based tools, including generative AI, in a number of ways, including conducting sophisticated data searches, seamlessly creating customer profiles with external data enrichment, automating client outreach and the collection of client documents, extracting relevant information for customer identification and adverse media screening (in a manner more "human-like" and advanced than optical character recognition, which has been around for over a half century), condensing extensive data into clear summaries, graph analytics to better understand a complex legal organization for beneficial ownership identification purposes, using models and machine learning to better assess customer risk levels, and analyzing data and transactions to summarize pertinent information for the KYC analyst, who then needs to spend less time performing manual searches for customer data.

Perpetual KYC (pKYC) is becoming the norm

KYC is evolving into a process that's come to be known as perpetual KYC (or "pKYC"). pKYC is the continuous monitoring of customer behavior and any change in reference data regarding a customer using automation, statistical models, and data feeds from many sources to better understand the customer's behavior, re-evaluate it as new information about its activities and associations is accumulated, and at any point in time automatically reassign scores. The pKYC process is triggered when a material change is identified. This allows financial institutions to look beyond static ratings and receive a real-time view of the customer from an FCC risk perspective.

pKYC solutions permit machines to perform repetitive tasks such as routine data entry and collection and simple verifications, reducing human error and freeing up the time of investigators to perform higher value tasks and better identify client risk and patterns of suspicious behavior. Other benefits include: (1) a more streamlined and efficient review process; (2) better clarification of unclear or questionable data; (3) near instantaneous responses to changes in customer information; (4) a better client experience; (5) fewer false positives; and (6) reduced due diligence review backlogs.

pKYC primarily involves the use of dynamic data gathering and resolution together with data analytics. AI comes into play in the handling and screening of large-scale data sets on a continuous basis. AI bots mimic humans in their ability to review screening alerts and make determinations of which ones can be disposed of based on preset conditions and rule sets.

> "While pKYC does not itself involve use of AI in the traditional manner, the melding of AI tech into the pKYC process gives financial institutions greater confidence in their ability to use pKYC in the most productive manner."
>
> **Manish Chopra, Global Risk and FCC Business Leader, Capgemini**

Dynamic TM takes the fore

The traditional static, rules-based TM process also suffers from major deficiencies, which has led banks and fintechs to experiment with using AI and machine learning technology to identify data correlations across their customer base and activity that may be indicative of suspicious behavior. This facilitates an institution's ability to move beyond relying solely on transactional data for detecting unusual activity to also using internal and external data, such as KYC data, open source data, and company listings to make the analysis more meaningful. Leveraging non-traditional, non-transactional data sets can significantly improve risk identification and mitigation.

Capitalizing on internal data pools

AI-enabled digital workers can AI-enabled digital workers can facilitate investigations, automate conclusions for L1 alerts, source data from third parties, and build an information dossier for decisioning. This lessens the need for human analysts to address low-risk activity. For more complex, higher-risk alerts, the digital worker acts as a co-pilot, assisting a human investigator to dynamically gather information from multiple sources and perform ad-hoc analysis.

More sophisticated AI-based tools can train on the financial institution's core banking data and suspicious activity information to allow for a more dynamic and accurate alert and investigation process. Among other things, these tools can use the large volumes of information gathered to identify links between entities, thus assessing risk arising from associations that are difficult for humans to identify.

AI-based tools can identify unusual patterns and behaviors across a number of AML risk typologies. This includes using neural networks that learn from customer data to predict future behavior and, thus, better assess whether such behavior is suspicious or not.

At its core, AI-based TM uses machine learning algorithms and other statistical techniques to assign customer risk scores based on analysis of a range of customer data, including transaction history, account activity, and geographic and IP location. This is a dynamic process that updates scores as new transaction data becomes available, allowing financial institutions to identify and respond to potential risks quickly.

Finally, scalable AI-powered TM systems can effortlessly handle large volumes of data, making them suitable for institutions with extensive customer bases and high transaction volumes.

The end process of the TM function is SAR reporting. This is where generative AI can come into play in a highly useful manner by prepopulating much of the standard template, saving the human analyst time and effort. Instead, the analyst can focus on the more complex aspects of the descriptive narrative unique to the specific SAR.

Accelerating sanctions screening

Sanctions screening uses software systems that apply predefined rules, algorithms, or machine learning techniques to analyze transactional data. Screening can occur in real-time as transactions are processed or in batch mode, where historical data is reviewed periodically.

AI-based tools can greatly assist financial institutions in performing screening functions by retrieving relevant information, executing researches, analyzing data, making decisions on alerts, and generating and publishing detailed reports and an audit trail. Of note is that these tools can be used to derive a very curated matching logic, one far more advanced than the fuzzy logic method that's been used for many years.

Putting highly-curated matching logic to work

Indeed, a number of organizations have replaced first level human review of screening alert hits with purpose-built algorithms for screening names and payments and analyzing them in real time. In complex situations, there's a hand off to a human analyst, with alert review and transaction history provided in one place for efficient and easy review.

Finally, AI allows for a better ranking of the probability that a match is a real one. This results in a lesser number of false positives and more productive investigations by human analysts. There are also digital assist and AI-powered collaboration tools and solutions that help with making the investigation process easier and more time effective.

Key considerations for AI success

Benefits of AI-based tools for KYC, TM, and sanctions screening

- Greater speed, capacity, accuracy, and comprehensiveness

- Less overall risk

- Reduced false positives

- Continuous and real-time analysis

- Linkages between compliance systems

- A complete record and profile including databases and search engines used for transparency and audibility

- Detailed metrics that enable managers to readily keep track of all searches and results of the AI-based analyst

- Maximized human productivity and morale

"A key step in implementing AI technology into an AML/KYC system is to map out the key cognitive components in each process and determine what can machines do better than humans versus what humans do better but can be augmented by automation. The AML SMEs should remain in control, and generative AI makes this collaboration between humans and AI more feasible."

Samar Pratt, FCC Advisory Solutions Leader, Capgemini

However, introducing an AI system into a legacy process—even in a gradual, measured manner—requires significant expertise, careful planning, collaboration between technology, compliance, and business units, and attention to regulatory imperatives.

Of course, a huge consideration always is data, given that AI models rely on comprehensive, quality data. Thus, data accessibility, sourcing, quality, consistency, and security are critical, along with integrating the end-to-end workflows to allow for a seamless stream of information.

Also, it must be kept in mind that complex machine learning models can be difficult to interpret and explain. Transparency must be ensured to allow management, auditors, and regulators to understand how decisions are made.

Other implementation considerations include proper buy-in from senior leadership, sufficient regulatory dialogue, enhanced internal governance, talent skills upgrade, and the retraining of staff. Of course, there's also a need for continuous testing, refinement, and validation of models.

In conclusion

While shifting to modern FCC automation is an imperative for financial institutions, implementing AI tools requires a strategic approach. Starting slowly and using an ecosystem of technology partners each of whom brings specific strengths to the table, often is the optimal path. It's also important to remember that there must always be expert human oversight for AI and GenAI solutions, given the risks associated with them.

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