HONG KONG MONETARY AUTHORITY
香港金融管理局

AML/CFT Supervision in the Age of Digital Innovation

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What Must Change?

As an integral part of its Digitalisation Programme, the Hong Kong Monetary Authority (HKMA) has worked with Deloitte to address a pertinent question: how does AML/CFT supervisory work need to change in the age of digital innovation?

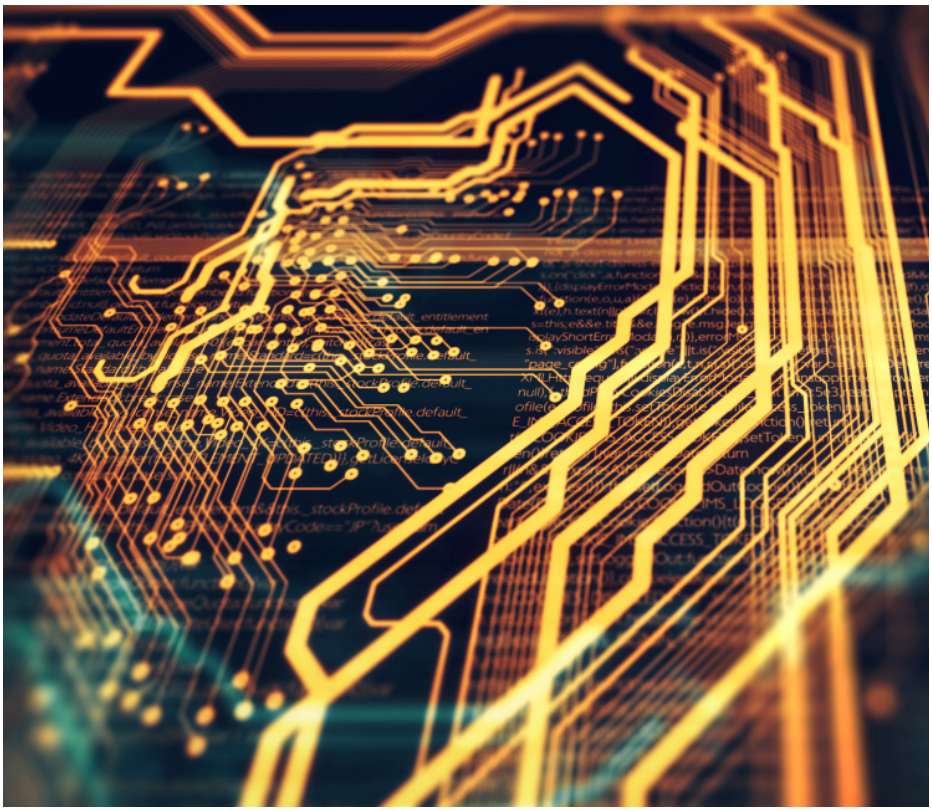
To place this question into context, in the past few years, we have produced more data than throughout all of human history. This exponential growth, coupled with advances in data storage, network science and cognitive technologies, has led us to a place where virtually all industry sectors are reimagining their business models, customer journeys and ways of working.

In most instances, the reimagining driven by digital innovation has produced positive outcomes—convenient access to products and services, as well as more accurate and efficient processes supporting businesses. Remote customer on-boarding and digital channels in banking, for example, have made it more convenient for customers in Hong Kong to access financial services.

While technologies undoubtedly bring benefits and opportunities, unfortunately these can also have unintended consequences. Put simply: the speed, scale and mobility gains realised by legitimate businesses, could also be potentially abused by criminal syndicates that are rapidly adapting to this new landscape.

Money launderers, fraudsters and other bad actors seeking to exploit the financial system are increasingly borderless and fast moving. The fight against financial crime has become asymmetric, with criminals having relatively modest resources being able to present significant threats to the world's financial institutions using new and emerging technologies and techniques.

The question therefore is no longer one of choice, but necessity. To remain ready and able to meet these emerging threats, the HKMA and the broader AML/CFT ecosystem in Hong Kong should respond: what must change?



Since the AML/CFT RegTech Forum in 2019, with COVID-19 acting as an additional accelerant, **85% of retail banks have launched or are planning remote on-boarding initiatives.**

Insights from the Consultancy Study

One aspect of the consultancy study addressing this question was to identify emerging international trends based on the experiences of the HKMA's overseas peers pursuing digital transformation and embedding Supervisory Technologies (Suptech) into their AML/CFT supervisory work. Another was to assess the current level of Regulatory Technology (Regtech) adoption by Authorized Institutions (AI) and Stored Value Facility (SVF) licensees in Hong Kong.

The review generated three main observations that then informed the recommendations that were made for the HKMA's digital transformation around AML/CFT supervision:

I. There is significant potential for AML/CFT supervision to become more proactive and targeted.

Data analytics will facilitate enhancements to the HKMA's existing risk-based approach to AML/CFT supervision, increasing its effectiveness and driving better outcomes from the AML/CFT efforts of AIs and SVF licensees. The study of over 20 overseas peer agencies found that data analytics very much remains a key to advancing risk-based supervision of AML/CFT programmes.

Overview of the Consultancy Study

Enhancement of Macro Analytics
How can the HKMA enhance analysis on money laundering and financial crime risk trends at a "macro" or sector level?

Regtech and Suptech Adoption Trends
How are the banking industry and other overseas supervisors adopting new and emerging technologies into their AML/CFT programmes?

Suptech Enabled Process Enhancement
How can these new technologies automate and enhance the analysis of data collected by the HKMA?

More than half of the peer agencies reviewed are building richer data environments, often on secure cloud platforms, and improving their awareness of emerging sector-level threats by implementing or experimenting with analytic techniques involving web-scraping, natural language processing, clustering and automated content categorisation.

By leveraging these advances in data collection, storage and processing, AML/CFT supervisors including the HKMA can enhance their risk-based supervision by becoming more adept at anticipating emerging threats, prioritising them within the broader AML/CFT ecosystem, and making supervisory activities more proactive, targeted and relevant.

II. Talent and culture must evolve alongside the technology.

Experience of overseas peers have also shown that developing the future of AML/CFT supervision is as much about people and culture as it is about data, analytic tools and infrastructure.

This means those embarking on digital transformation journeys are actively engaging and consulting their team members throughout the journey, not just at the end. It means equipping individuals with knowledge and skills specifically tailored to themselves and their roles, encouraging them through appropriate motivators and incentives, and providing meaningful opportunities to put their newfound skills to use.

III. Deepen collaboration across the AML/CFT ecosystem.

There is increasing recognition among stakeholders that, only by working together and sharing our expertise, will we see more good examples that lead to the right outcomes.

The international standard setting body, the Financial Action Task Force, as well as peer regulators, all promote public-private partnership and the use of technology in the fight against financial crime. Such efforts emphasise establishing common objectives, prioritising threats, facilitating close engagement and dialogue, encouraging responsible innovation, and working together to establish clear and consistent regulatory expectations and guidelines that are technology neutral, and balance risk management with innovation.

The review of peer agencies found many are using digital tools, such as APIs (Application Programming Interface) and cloud-based analytics platforms, to build upon existing partnerships, focus collective efforts and operate as a network to move the needle on AML/CFT.

Evolving AML/CFT Supervision at the HKMA

With these observations as guides, the HKMA is now beginning to implement a series of changes which will not only apply current technology solutions to its risk-based AML/CFT supervision, but also allow the HKMA to sustainably monitor for opportunities to adopt future technologies and techniques. The capabilities that result from these changes will also help the HKMA stay aligned with changes from the industry's adoption of Regtech, so that collectively all stakeholders in the AML/CFT ecosystem can continue to protect the integrity of Hong Kong's financial system from abuse by bad actors.

Following the conclusion of the consultancy study, priorities over the coming years will include:

Enhancing the capability to proactively identify and manage emerging risks.

Anticipating emerging ML/TF risks for the banking and SVF sectors will become an increasingly important aspect of supervisory work. Techniques, such as horizon scanning, which are often adopted by governments for the purpose of anticipatory policy making, will become a core feature of the HKMA's AML/CFT supervisory process.

By developing a dedicated horizon scanning capability alongside existing collaboration with public- and private-sector partners on threat mitigation, the HKMA will increasingly be able to provide supervisory responses to emerging ML/TF threats in a more proactive and contextualized manner and to better support the efforts of AIs and SVF licensees in effective risk management and compliance.

Proactive and Targeted
Use of horizon scanning and other techniques to proactively identify and deliver targeted responses to threats that could impact Hong Kong's banking industry.

Data-Driven
Upgrade data collection, storage and processing methods to decrease friction, improve data quality and further enhance the HKMA's risk-based AML/CFT supervision.

Collaborative
Continue to engage and help all AIs and SVF licensees accelerate their adoption of AML/CFT Regtech, enable responsible innovation, and foster meaningful, results-oriented collaboration on AML/CFT efforts.

People Focused
Getting the most out of technology by investing in our people, encouraging them through the right culture, and empowering them with relevant, practical opportunities.

Pursuing data-driven AML/CFT supervision.

In keeping with international trends in AML/CFT supervision, the HKMA will significantly enhance its ability to source, capture, store and process data across the full spectrum of its AML/CFT supervisory activities.

To realize the full potential of this richer data environment, the HKMA will also continue to explore ways to augment the supervisory skills of its existing AML/CFT specialists with the right analytic tools and technologies.

While headlines often focus on analytics and the newest technologies on the market, we have found that investing early and continuously on data and practical, outcomes-based tools, are some of the most common attributes of sustainable digital transformation journeys across the public and private sectors.

In the near term, as part of the wider HKMA Digitalisation Programme, we will be upgrading our data governance and structured data storage, as well as the schemas, templates and tools around our enhanced AML/CFT supervisory processes. These upgrades will lead to changes in the interface between the HKMA and supervised entities, improve the flow and quality of data, and further develop the HKMA's ability to apply more dynamic and targeted AML/CFT supervisory activities.

Additionally, the HKMA's AML/CFT specialists will become more efficient and effective in their supervisory activities by gaining access to cloud-based applications that facilitate real-time collaboration and case management, automation tools that reduce the risk of human error while increasing resource capacity in areas such as data ingestion, and analytic tools built on open-source programming languages to not only query the growing pool of AML/CFT data to which specialists have access, but also to visualise their findings in a way that facilitates meaningful discussion and engagement with industry stakeholders.

Engaging the ecosystem.

It is important to stay engaged with the local and international members of the AML/CFT ecosystem through consultations, information sharing, joint learning and partnerships.

Following the vision shared during the inaugural AML/CFT RegTech Forum last November, we will continue to engage and help all AIs and SVF licensees under the HKMA's supervision to accelerate their adoption of AML/CFT Regtech, enable responsible innovation, and foster meaningful, outcomes-oriented collaboration on AML/CFT efforts.[1]

Investing in people.

Change is difficult and often intimidating. Learning new habits can be just as challenging as unlearning old ones.

Investing in people is about more than just providing them with training opportunities and flexible working arrangements. It is about helping them develop the required competence, encouraging them through the right culture, and empowering them with relevant opportunities.

AML/CFT supervision will continue to be an integral part of the HKMA mandate, with team members ready to make the most of these new technologies and techniques to contribute to the AML/CFT ecosystem in Hong Kong.

[1] For further details, please refer to the following press release which contains a link to the Record of Discussion of the AML/CFT RegTech Forum in November 2019: https://www.hkma.gov.hk/eng/news-and-media/press-releases/2019/11/20191122-4/

The Path Ahead

The journey ahead, however, will not be without its challenges. From the experience of overseas peers, making these changes will be neither easy nor fast, particularly where people and culture are concerned.

But as challenging as it may be to make progress and advance toward these goals, "the risk for all of us is being complacent, of carrying on as we have been and not confronting the barriers that may stand between us and progress."[2]

This transformation will help advance the HKMA's enduring commitment to applying a risk-based approach to AML/CFT supervision. To progress, the HKMA needs the support from as well as active participation of all stakeholders in Hong Kong's AML/CFT ecosystem. This includes AIs and SVF licensees exploring the adoption of relevant Regtech solutions into their AML/CFT programmes, as well as technology providers continuing to offer innovative solutions to the industry's challenges.

Since the AML/CFT RegTech Forum last November, where three work streams were formed, we are already seeing significant results: 80% of "Accelerators"—those banks at an early stage of the adoption cycle—are now using or planning to use Regtech solutions in AML/CFT work; 77% of "Enablers"—which explored implementing machine learning in transaction monitoring and screening—are now either using, conducting proof of concepts, or have other advanced concrete plans to do so; and for "Collaborators"—those involved in public-private partnership in intelligence sharing—Regtech solutions have led to a significant increase in the sharing of strategic, tactical and operational intelligence on COVID-19 criminal threats, such as face mask scams.

Ultimately, by strengthening collaboration, the HKMA can help foster a more diversified ecosystem for AML/CFT Suptech and Regtech, and help raise the effectiveness of the collective, ongoing contributions to AML/CFT by AIs and SVF licensees in Hong Kong.

Accelerators

80% of banks that were part of the "Accelerators" group in November 2019 are now using or planning to use Regtech solutions in AML/CFT work.

Enablers

77% of banks that were part of the "Enablers" group are now either using, experimenting with, or planning to adopt machine learning tools into their transaction monitoring and screening processes.

Collaborators

Banks that were part of the "Collaborators" group have leveraged Regtech solutions for the **sharing of intelligence on COVID-19 criminal threats, such as face mask scams**.

[2] Opening remarks by Mr. Arthur Yuen, Deputy Chief Executive of the HKMA at the first AML/CFT RegTech Forum in November 2019.

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