



THOUGHT LEADERSHIP BRIEF

Redefining Regulation: The Power of Regtech in Driving Financial Innovation in Hong Kong

Kar Yan Tam, Christy Yeung

KEY POINTS

- ▶ RegTech refers to the utilization of technology in managing regulatory monitoring, reporting, and compliance in the financial industry.
- ▶ Regtech is promoted by the Hong Kong Government as a part of the overall fintech strategy to advance the city as a global financial and fintech hub.
- ▶ We organized four focus groups to gather insights from regtech practitioners on key trends and challenges faced by the Hong Kong regtech sector.
- ▶ To address these challenges we suggest: creating a friendly regulatory environment that encourages innovation; building a connected, inclusive, and vibrant regtech ecosystem; facilitating the sharing of data & technology in the regtech community; facilitating KYC processes and cross-border data access.

ISSUE

Regtech provides transparency and flexibility in modern regulatory practices and marks the shift from a reactive regulatory system to a dynamic approach. Regtech's purpose is to improve outcomes, minimize risks and reduce costs.¹ In the past decade, the global trend in stricter compliance, data security and Anti-Money Laundering (AML) has driven the importance of regtech in Hong Kong. An industry spearheaded by the Hong Kong Monetary Authority (HKMA), regtech solution providers are actively serving commercial and virtual banks, stockbrokers, asset management firms, insurance companies, and other industries that require identity management.

Graphic generated using Midjourney by @_catitude

¹ World Economic Forum (2022). What is RegTech and what does it mean for policymakers?.
<https://www.weforum.org/agenda/2022/06/what-is-regtech-and-what-does-it-mean-for-policymakers/>



In November 2020, the HKMA announced a two-year regtech promotion roadmap to encourage adoption. Also in 2020 was a boom in local regtech startups riding on the rise of fintech and the wave of digitalization spurred by COVID-19 measures. However, contrary to expectation this boom has slowed significantly. In 2022, local regtech startups continue to develop their technologies despite diminishing regtech talent. However, some of the smaller players have already left the market due to the slowdown in local business as a result of COVID-19. At the same time, most established overseas and regional regtech solution providers have yet to customize standardized solutions for local regulation and business needs despite their more mature technology.

ASSESSMENT

Four focus groups were conducted by HKUST Business School in July 2022 to gather insights from regtech practitioners on key trends and challenges faced by the Hong Kong regtech sector. 20 participants consisting of management and senior executives were divided into two groups: regtech solution providers and regtech users. Overall, regtech practitioners are facing major challenges and limitations in the following areas: verifying data; verifying cross-border identity and accessing cross-border data; sharing of technology with other regtech users and solution providers; recruiting and retaining talent.

Verifying Data

There is an absence of a comprehensive database for regtech solution providers in identity and management control to verify personal or company data in Hong Kong. While financial institutions can acquire data from third parties and credit firms, they do not cover all records. Additionally, current regulatory guidelines lack clarity, which lead to different standards of privacy requirements from one bank to another, or even within the same bank.

Verifying Cross-Border Identity and Data

In Hong Kong, regtech service providers have readily available Know Your Customer (KYC) solutions for account opening. Limitations in verifying the validity of the information and accessing data from foreign governments lead to delays in the account opening process for overseas customers. A local branch of a global bank group found it difficult to expand its own regtech solutions to different jurisdictions because of the challenge of meeting Hong Kong's Privacy Commissioner for Personal Data (PCPD) requirements for

carrying out data analytics and data processing. Because there are multiple governing units overseeing data and privacy, it is simply too time and resource consuming for banks to provide these services.

Sharing of Technology With Other Regtech Users and Solution Providers

The general consensus is that the government and regulators must take the lead in building stable infrastructure and a centralized platform for technology transfer. While efforts have been made, there needs to be increased drive in connecting different players within the ecosystem on initiatives that would help build the infrastructure needed for applying regtech. For example, the Commercial Data Interchange (CDI) launched by the HKMA enables more efficient financial intermediation in the banking system. However, CDI usage is in the preliminary phase. According to a regtech service provider, a bank's API building process may require nine months or more to develop, test and approve before it can join the CDI and become a successful use case. This process requires time, effort, and more importantly, the exploration with different open API standards to make things work. Other major concerns that inhibit the adoption of CDI are data privacy and data sharing among banks and data providers while passing through a public platform.

The Know-Your-Customer Utilities (KYCU) project is a joint venture established by local financial institutions to centralize collection, verification, storage, and sharing of clients' data and documents to comply with each financial institution's KYC procedures. The development of the KYCU platform is delayed because of compliance, data privacy and other issues. Some banks are unclear on why and how to share with others, while three of the largest commercial banks in Hong Kong did not participate in KYCU.

There has been an increase in cases in AML and scams online and offline in Hong Kong which involve illegitimate funds transferred through dummy bank accounts. Very often, after a lengthy period of investigation, suspects are already gone and the police cannot trace the funds for the victims.

Some virtual banks are already using Electronic Identity Verification (eIDV) for individual ID verification when opening bank accounts. The local industry's false acceptance rate is 2%, which is lower than other countries. But even at a 2% acceptance rate, the HKMA does not allow any false acceptance and therefore sets a very high standard with zero tolerance for error.



Recruiting and Retaining Talent

Hong Kong faces insufficient talent to fulfill its regtech needs. Hong Kong must address the lack of awareness about regtech's value, low ecosystem participation, and talent shortage. Regtech has low appeal to top talent due to lower salaries, less career stability, a label as back office staff in the financial industry, and lower perceived career satisfaction. Stakeholders must address these issues to make regtech a more desirable career for people with outstanding skill sets.

Through these focus groups, we identified other specific problems that need to be addressed with top priority including: low regtech adoption beyond banks; mismatch between available local solutions and user demands; ambiguity of regulations and long approval process of regtech projects; organizations and government units slow to adopt digitalization; duplication of resources on the same technologies.

RECOMMENDATIONS

To address these challenges, we mapped out four objectives with ten recommendations for Hong Kong to increase its regtech capabilities.

Objective 1: Create a Friendly Regulatory Environment that Encourages Innovation

1. Establish clear guidelines with notes on interpretation and provide prompt feedback during the screening and approval process. Regulators can expedite the process by reevaluating the standards and requirements needed for different types of Financial Institutions. For example, virtual banks may need a set of updated standards different from the standards for traditional banks.

2. Provide more incentives instead of using penalties. Subsidies can be provided to banks and regtech providers when they launch sandbox projects at HKMA. Funding to support regtech startups to help build the ecosystem would also be welcomed.

Objective 2: Build a Connected, Inclusive, and Vibrant Regtech Ecosystem

3. Regulators should take the lead in technology development by conducting annual surveys to learn about the market and demands of regtech users, and to follow up with KPIs to measure achievements. A regtech lab can be set up where financial institutions can contribute their needs and pain points and the

regulator can share in some of the costs for AI modelling in delivering effective solutions. Another example is to assign a single KYCU service provider to support all banks' API on the KYCU platform. To avoid head-to-head competition and duplicating resources, the government can act as a facilitator to decide which type of regtech services are to be provided by each local service provider.

4. Build an inclusive regtech network by organizing regular forums and events to allow regtech stakeholders and potential clients to connect. In this vein, the RegTech Association of Hong Kong is developing a platform that will match regtech users with service providers.

5. Granting accreditation of regtech solution providers tied with their related field of expertise would encourage financial institutions to engage suitable third parties, alleviate concerns in data security, and expedite their internal approval procedures on vendor selection. The Multiple Credit Reference Agencies (MRCA) could be a source of reference for the accreditation list of regtech solution providers.

Objective 3: Facilitate the Sharing of Data & Technology in the Regtech Community

6. Standardize the API to enable different banks to share data. Central regulation is important to facilitate and monitor the customization of applications for different banks' requirements. We suggest that a group of banks share costs in engaging an HKMA accredited regtech service provider to build the API. To support this, some of the focus group participants representing the banks expressed their willingness to share these costs. A final suggestion is to require banks to share specific but not comprehensive information. Once the required standards are met, banks can connect through the CDI which can be further developed to streamline and centralize data exchange.

7. Provide shared databases and platforms to be accessed by different regtech stakeholders. A comprehensive database for individual names, HKID and verified phone numbers would allow financial institutions to accurately match data using automated processes. It would also be efficient for the comprehensive database to be equipped with an open API. Furthermore, banks and stockbrokers require a shared database for suspicious data and blacklists of account holders, in addition to the requested information by the Hong Kong Police or other law enforcement units.

8. Allow successful sandbox projects that have mature technology to centralize and standardize solutions for the market.



Objective 4: Facilitate KYC Processes and Cross-Border Data Access

9. Establish a set of clear protocols for releasing government data to verify documents and to update data privacy laws. Financial institutions should also have legal access to the data required for their KYC needs. The Government is recommended to digitalize their data and to adopt technologies to retrieve data from government documents.

10. Collaborate with Mainland China to offer standardized identity management and control, KYC account opening procedures, and updated data privacy regulations for accessing Mainland China's database.



Kar Yan Tam is Dean of the Business School and Chair Professor of Information Systems, Business Statistics and Operations Management at The Hong Kong University of Science and Technology (HKUST). He is currently the Acting Director of HKUST Institute for Emerging Market Studies. Prof Tam received his PhD from Purdue University and started off his academic career at the University of Texas (Austin). As a researcher, Prof Tam is well known for his contributions in information systems and the diffusion of innovations in organisations. He is currently serving on several regulatory bodies and councils of tertiary institutions, such as the Exchange Fund Advisory Committee of the Hong Kong Monetary Authority, the Anti-money Laundering and Counter-Terrorist Financing Review Tribunal and the Metropolitan University of Hong Kong (MUHK) and Technological and Higher Education Institute of Hong Kong (THEi). He is a member of the Hong Kong Academy of Finance.



Christy Yeung is Head of Fintech and Green Finance Projects of The Hong Kong University of Science and Technology, overseeing research projects, talent development initiatives, and industry engagement in the areas of fintech and green finance. Her research interests include fintech and green finance policies and talent development with a focus on filling the talent gaps for Hong Kong's financial sector.

This Thought Leadership Brief is adapted from the report *"RegTech Development in Hong Kong: Challenges and Recommendations,"* published by HKUST Business School in 2023.

Read all HKUST IEMS
Thought Leadership Briefs
at <http://iems.ust.hk/tlb>



T: (852) 3469 2215
E: iems@ust.hk
W: <http://iems.ust.hk>
A: Lo Ka Chung Building, The Hong Kong
University of Science and Technology,
Clear Water Bay, Kowloon

With Support from

