HONG KONG MONETARY AUTHORITY
香 港 金 融 管 理 局

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5 November 2019

The Chief Executive
All Authorized Institutions

Dear Sir / Madam,

Consumer Protection in respect of Use of Big Data Analytics and Artificial Intelligence by Authorized Institutions

I am writing to provide authorized institutions ("AIs") with a set of guiding principles on consumer protection aspects in respect of the use of big data analytics and artificial intelligence ("BDAI").

Under the Balanced and Responsive Supervision ("BRS") initiative of the Hong Kong Monetary Authority ("HKMA"), BRS Roundtable is held by the HKMA to solicit feedback from the banking industry with a view to identifying possible enhancements to supervisory policies and requirements as well as emerging risks and market trends warranting supervisory attention. As reflected in a recent BRS Roundtable, the banking industry would welcome the HKMA to provide guidance in the form of guiding principles on consumer protection aspects in respect of the use of BDAI, which would be beneficial to banks, customers and the healthy development of BDAI in the banking sector as a whole, especially in enhancing customers' confidence in using banking services adopting BDAI.

In light of the above, the HKMA has developed some guiding principles on consumer protection aspects in respect of the use of BDAI, taking into account feedback from the banking industry and references from the "Updated Effective Approaches for Financial Consumer Protection in the Digital Age" promulgated by the Organisation for Economic Co-operation and Development ("OECD"). These guiding principles focus on four major areas, namely governance and accountability, fairness, transparency and disclosure, and data privacy and protection. AIs should adopt a risk-based approach commensurate with the risks involved in their BDAI applications when applying these guiding principles.

1. Governance and accountability

The board and senior management of AIs should remain accountable for all the BDAI-driven decisions and processes. Accordingly, they should ensure, among others:

(a) appropriate governance, oversight and accountability framework which is established and documented;

(b) appropriate level of explainability of the BDAI models including any algorithms (i.e. no black-box excuse), and that the models can be understood by the AIs;

(c) adherence to the consumer protection principles set out in the Code of Banking Practice, Treat Customers Fairly Charter and other applicable regulatory requirements, as in the case of providing conventional banking products and services. BDAI applications should also be consistent with AIs' corporate values and ethical standards which should include, among others, upholding customer-centric culture and principles; and

(d) proper validation before launch of BDAI applications, and thereafter on-going reviews, to ensure the reliability, fairness, accuracy and relevance of the models, data used and the results.

2. Fairness

AIs should ensure that BDAI models produce objective, consistent, ethical and fair outcomes to customers, which include ensuring, among others:

(a) compliance with the applicable laws, including those relevant to discrimination;

(b) customer access to basic banking services are not denied unjustifiably which will be against the spirit of financial inclusion;

(c) customers' financial capabilities, situation and needs, including their level of digital literacy, are taken into account;

(d) the models used for the BDAI-driven decision are robust and have appropriately weighed all relevant variables; and

(e) the possibility of manual intervention to mitigate irresponsible lending decisions where necessary (e.g. in cases involving higher risks or impacts from the automated decision).

3. Transparency and disclosure

AIs should provide appropriate level of transparency to customers regarding their BDAI applications through proper, accurate and understandable disclosure. Accordingly, they should, among others:

(a) make clear to customers, prior to service provision, that the relevant service is powered by BDAI technology and of the associated risks;

(b) provide proper disclosure to customers so that customers could understand AIs' approach to using customer data;

(c) make available a mechanism for customers to enquire and request reviews on the decisions made by the BDAI applications, and ensure that any related complaint handling and redress mechanism for BDAI-based products and services are accessible and fair;

(d) provide explanations on what types of data are used, and what factors or how the models affect the BDAI-driven decisions, upon customers' request and where appropriate. For the avoidance of doubt, such explanations to customers are not required for systems used for monitoring and prevention of frauds or money laundering / terrorist financing activities;

(e) carry out appropriate consumer education to enhance consumers' understanding on BDAI technology in banking services; and

(f) ensure that relevant customer communications are clear and simple to understand.

4. Data privacy and protection

AIs should implement effective protection measures to safeguard customer data. Accordingly, they should, among others:

(a) if personal data are collected and processed by BDAI applications:
   - ensure compliance with the Personal Data (Privacy) Ordinance ("PDPO") including the 6 Data Protection Principles, any relevant codes of practice issued or approved by the Privacy Commissioner for Personal Data ("PCPD") giving practical guidance on compliance with the PDPO, and any other applicable local and overseas statutory or regulatory requirements;
   - pay regard to the relevant good practices issued by the PCPD related to BDAI and Fintech, including, among others, the "Ethical Accountability Framework" (the "Framework"), the "Data Stewardship

Accountability, Data Impact Assessments and Oversight Models" in support of the Framework, and the "Information Leaflet on Fintech";

(b) consider embedding data protection in the design of a product or system from the outset (i.e. "privacy by design") and collecting and storing only the minimum amount of data for the minimum amount of time (i.e. "data minimisation"); and

(c) where request for consent to the collection and use of personal data in relation to a banking product or service powered by BDAI technology is required, ensure that such consent is as clear and understandable as possible in the interests of ensuring informed consent.

Taking into account the views of the banking industry, the HKMA would welcome the industry to develop worked examples on the application of the above guiding principles and explore joint effort on consumer education as appropriate.

While this circular focuses on consumer protection aspects, AIs should also refer to another circular issued by the HKMA dated 1 November 2019 on "High-level Principles on Artificial Intelligence" in the use of artificial intelligence applications.

Should you have any questions regarding this circular, please feel free to contact Ms Stella Ma on 2878-8601 or Ms Teresa Chu on 2878-1563.

Yours faithfully,

Alan Au
Executive Director (Banking Conduct)