

lakyara vol.323

P reventing money laundering with network analysis

Kenta Yoshida

11.August.2020

Executive Summary



Kenta Yoshida

Data Analyst

Global Financial Solution
Business Department

Many financial institutions manually screen money-laundering alerts to make final decisions on their validity. Manual screening, however, is inherently prone to oversights due to the sheer volume of data involved. Financial institutions should upgrade their AML/CFT screening processes by using network analysis to identify the ultimate beneficial owner behind the scenes.

AML/CFT landscape and challenges

Money laundering cases involving elaborate subterfuge to conceal the ultimate beneficial owner (UBO) have come to light in recent years. In one instance, a European financial institution ended up being heavily fined for complicity in money laundering for failing to identify UBOs¹⁾. It is no exaggeration that effective UBO identification is a critically important issue for financial institutions going forward.

Currently, many financial institutions manually screen transactions and customers flagged as suspicious by an AML/CFT (anti-money laundering/combating financing of terrorism) system to assess the validity of the system's suspicions. However, UBO identification is practically impossible when the only information available on a customer or transaction is data exchanged between the two financial institutions involved.

Some financial institutions are experimenting with manually vetting and analyzing externally sourced information in addition to their own data, but even if such an approach finds grounds for suspicion in a given transaction, identifying connections among voluminous, diverse data that are remote from the transaction is extremely difficult for humans.

Many financial institutions consequently remain at risk of being penalized like in the example cited above because their screening processes are inadequate to detect money laundering. Such inadequacies may include inability to effectively screen information in the financial institution's possession or oversights due to reliance on manual processes.

NOTE

1) <https://www.ing.com/Newsroom/News/Pressreleases/ING-reaches-settlement-agreementwith-Dutch-authorities-on-regulatory-issues-inthe-ING-Netherlands-business.htm>

Using network analysis to identify UBOs

NRI has found network analysis to be an effective IT-enabled means of better identifying UBOs. Globally, network analysis solutions are garnering growing interest as a way of tracing financial transaction linkages.

Network analysis uses AI technologies such as machine learning to support human decision-making by automatically aggregating data on a given set of individuals and/or entities and displaying a map of their interrelationships gleaned from various data sources. To improve network analysis's accuracy and properly screen and assess suspicious customers and transactions, financial institutions must use external data such as Bureau Van Dijk's²⁾ company information in combination with their own data sources (e.g., customer/transaction data).

²⁾ Bureau Van Dijk is a global database of financial institutions and both listed and unlisted companies.

The diagram next page depicts a specific example of network analysis of a bank's customer (Mr. X) who has been flagged twice by Bank X's AML/CFT system.

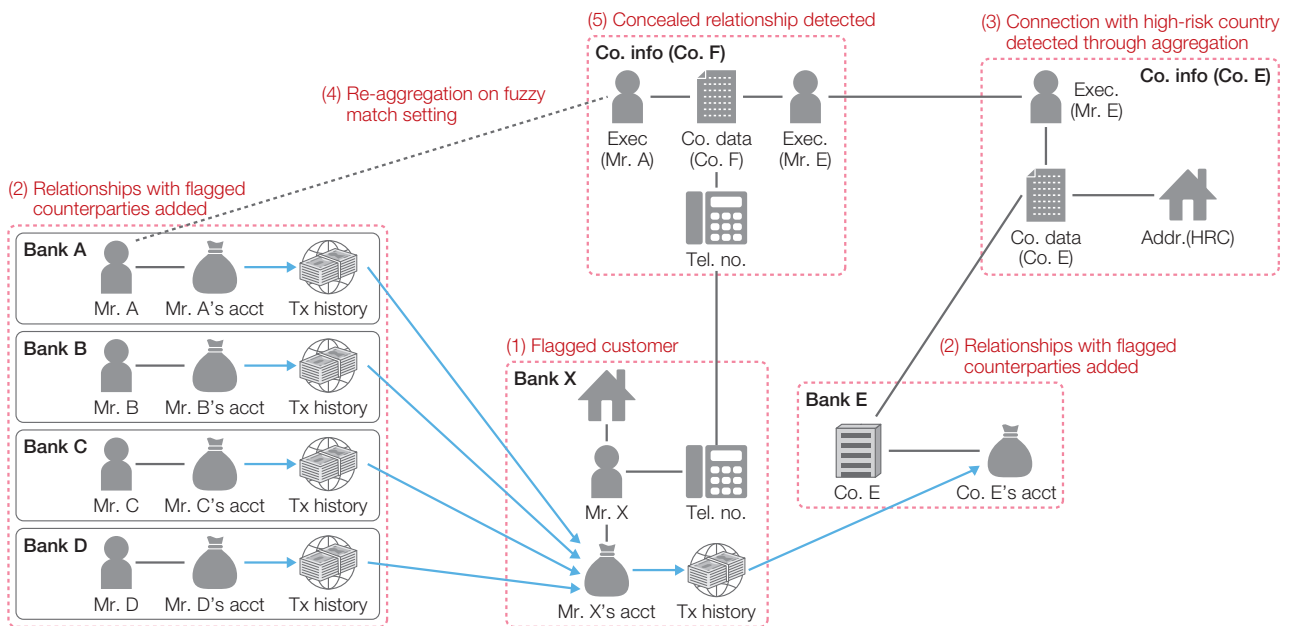
- (1) First, a network generated from Mr. X's personal information (e.g., address, phone number) and account information is displayed on the screen.
- (2) Mr. X's relationships with flagged counterparties are appended to the network by the network analysis system.
- (3) The network analysis system automatically aggregates data on these flagged counterparties, using externally sourced watchlists, company information and Bank X's own information on its corporate customers' senior management and lists of previously flagged customers, including ones with links to organized crime. This step reveals that Company E is headquartered in a high-risk country (HRC) in terms of money laundering.
- (4) To ascertain whether the individuals and companies within the network have any additional relationships of interest, the aggregation process is rerun for each counterparty on a fuzzy match setting. This step reveals that Mr. A is an executive of Company F.
- (5) Upon Company F's addition to the network, the system automatically searches external data sources and the financial institution's own data for connections between Company F's phone number/executives and the other individuals and companies within the network. The search reveals that Company F and Mr. X have the same phone number and Mr. E is an executive of Companies

E and F. As a result, Bank X is now aware of a relationship between Mr. X and the transaction counterparty that was concealed through separate entities.

Regulators globally are holding financial institutions accountable for their IT systems' automated decisions. Such decisions are sometimes difficult to justify to regulators. One advantage of network analysis is that it facilitates accountability because its logic is clear-cut and it offers network visibility that renders the decision-making process transparent.

Use of network analysis is one means of further upgrading AML/CFT compliance, including UBO identification. Network analysis promises to liberate financial institutions from manual screening of suspicious customers and transactions.

Example of network analysis of bank customer flagged by AML/CFT system



Source: NRI

about NRI

Founded in 1965, Nomura Research Institute (NRI) is a leading global provider of system solutions and consulting services with annual sales above \$4.8 billion. NRI offers clients holistic support of all aspects of operations from back- to front-office, with NRI's research expertise and innovative solutions as well as understanding of operational challenges faced by financial services firms. The clients include broker-dealers, asset managers, banks and insurance providers. NRI has its offices globally including New York, London, Tokyo, Hong Kong and Singapore, and over 13,000 employees.

For more information, visit <https://www.nri.com/en>

.....

The entire content of this report is subject to copyright with all rights reserved.
The report is provided solely for informational purposes for our UK and USA readers and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever.
Whilst every effort has been taken to ensure the accuracy of the information, NRI shall have no liability for any loss or damage arising directly or indirectly from the use of the information contained in this report.
Reproduction in whole or in part use for any public purpose is permitted only with the prior written approval of Nomura Research Institute, Ltd.

Inquiries to : Financial Market & Innovation Research Department
Nomura Research Institute, Ltd.
Otemachi Financial City Grand Cube,
1-9-2 Otemachi, Chiyoda-ku, Tokyo 100-0004, Japan
E-mail : kyara@nri.co.jp

<https://www.nri.com/en/knowledge/publication/fis/lakyara/>

.....