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Data governance helps
financial institutions
play both offense and defense

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Executive Summary



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For financial institutions, data utilization is becoming increasingly important in terms of both offense (e.g., data-driven marketing) and defense (e.g., AML/CFT compliance). While analytics tend to attract the lion's share of attention in the data science space, data quality is a critical determinant of analytic outcomes. Data governance is essential to ensuring that companies safely and securely utilize reliable data on an ongoing basis.

How financial institutions utilize data today

The Japanese Financial Services Agency (FSA) is stepping up regulatory defenses against money laundering and financing of terrorism in response to increasingly sophisticated financial crimes abetted by societal changes such as a growing influx of foreign labor and proliferation of crypto-assets. As part of this initiative, the FSA is pushing financial institutions to better manage data related to customer attributes, transaction histories and compliance records and adopt more of a data-centric risk-based approach to AML/CFT.

Meanwhile, financial institutions are plagued by shrinkage in net interest income amid a low-interest-rate, low-growth environment. This trend is driving them to diversify their offerings of payment services and financial products. To maximize fee income and build customer loyalty, they are turning to data-driven marketing that taps into voluminous data on customer attributes and transaction histories.

Both AML/CFT compliance and data-driven marketing require financial institutions to be able to detect meaningful trends in vast datasets and incorporate them into predictive decision-making models. Japanese financial institutions are experimenting with AI, machine learning (ML) and robotic process automation (RPA), but they often find such technologies less effective than initially expected.

Ensuring data accuracy is key to data utilization

When AI/ML/RPA fails to perform as expected, the problem is often a combination of too much focus on analytical methods or AI/ML/RPA solutions' functionality

and not enough attention to the quality of customer data. AML/CFT and data-driven marketing require an iterative PDCA (plan-to-check-act) process involving an exploratory approach and collaboration between front-line practitioners and data scientists. If, pressed for time, a financial institution analyzes whatever data happen to be conveniently available without giving sufficient consideration to terminology or the data's content and/or quality, data shortcomings could lead to flawed analytical results irrespective of the appropriateness of the analytical methods employed. In such an event, the financial institution would be unable to take effective action and may end up filing inaccurate regulatory reports or committing compliance infractions.

Aside from the issue of data accuracy, financial institutions must of course also be careful not to misuse data. A company that conducts marketing using data on customers' personal attributes or histories without the customers' consent risks not only losing customers but also damaging its reputation.

The key to avoiding such risks and maximizing data's value from both a defensive and an offensive standpoint is data governance, defined as an ongoing program for accurately defining data, ascertaining data's substance and safely and securely using reliable data.

Data governance in a nutshell

According to the Data Management Body of Knowledge, data governance encompasses five activities: data cataloging, maintaining a common business glossary, building a stewardship regime, formulating data management policies, and managing and periodically measuring data quality.

Data cataloging involves studying existing operating procedures and IT system design documents, defining key data elements and mapping their interrelationships, and documenting how data are generated and used. Data stewards are appointed to establish standard procedures necessary to continuously maintain such information in the form of a data catalog.

The data catalog is used in conjunction with a business glossary, the compilation of which requires input from personnel knowledgeable about relevant data's content and constraints in the context of the business. Next, data management policies are formulated to ensure data security. They specify how data stewards

seek and grant permission in every stage of the data lifecycle from generation to distribution, use and destruction.

Lastly, a sustainable data governance regime is established by regularly conducting audits using designated metrics to quantitatively and/or qualitatively measure data governance's maturation or progress.

Examples of overseas financial institutions' data governance practices

Since the mid-2000s, overseas financial institutions have been appointing data governance officers to comply with stress testing regulations and the EU's General Data Protection Regulation (GDPR). Following are excerpts from a major overseas bank's data governance officer's job description.

● Establish safe and secure data access

Apply stringent access controls to personal data by linking data management policies with the data catalog. Prevent unauthorized data use and data leaks while keeping data accessible for analysis on short notice.

● Compile business glossary and document its content

Compile hitherto implicitly used terminology for personal data (names, genders, addresses) into a GDPR-compliant business glossary and ensure the terminology therein is thoroughly and correctly used throughout the organization.

● Clarify upstream and downstream data flows

Visualize data lineage (i.e., identification of personal information's source system of record and where the information is ultimately used) and analyze data definition changes' downstream impacts based on lineage information.

● Improve metadata information's searchability

Designate locations of critical data and physical data subject to KPIs and develop and maintain search systems to facilitate data usage in both business and IT settings.

One especially interesting example from overseas is a financial institution that promotes preferential use of high-quality data by customizing its search engines to display data with the highest KPI rankings as the top search results and also

scoring data based on how frequently they are used.

Other financial institutions foster a culture of cooperation across their entire organizations through messages from top management about the importance of data and periodic dialogue sessions between business and IT departments.

Such examples are actively publicized at data governance conferences and shared among financial institutions, consultants and vendors. Overseas, financial institutions are enlisting the assistance of outsiders with hands-on expertise to expedite and streamline data governance's implementation¹⁾. Japanese financial institutions have much to learn from their overseas counterparts as they set up data governance regimes.

NOTE

1) NRI offers a data governance support service (https://www.nri.com/en/news/newsrelease/1st/2019/cc/1107_1).

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