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# Evolving risk management paradigm

Yuki Muroi

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**Yuki Muroi**

Consultant

Financial Service Business  
Development Department

## Executive Summary

*Financial institutions are facing growing difficulty in maintaining and improving administrative quality amid changes in their business environment, including diversification of their services. In response, one leading financial institution has launched a proactive risk management program to discern the risk of prospective employee errors and prevent them from occurring.*

### Administrative risk management's importance and state of administrative risk management at Japanese financial institutions

Improving administrative quality and providing high-quality services to customers are very important issues for Japanese financial institutions. The most important element of improving financial institutions' administrative quality is ensuring accuracy in business processes' execution<sup>1)</sup>. To enable accurate execution of business processes, administrative risk management activities aimed at reducing errors are needed<sup>2)</sup>. As financial institutions' business environment has changed in recent years in the wake of consolidation of back-office operations and diversification of financial service offerings (e.g., tax-advantaged NISAs<sup>3)</sup>, insurance sales), financial institutions' personnel have to perform tasks in which they have no previous experience. Against such a backdrop, administrative risk management activities have become more important.

Meanwhile, administrative risk management at many financial institutions currently seems focused mainly on responding to errors that have already occurred. The typical response is to identify the product and business process involved, determine the causes of the error, ascertain conditions at the branch where it occurred, and implement recurrence prevention measures such as employee training or creation of a checklist. Additionally, the business unit in charge of the product or business process analyzes the error's company-wide incidence and implements fundamental recurrence prevention measures (e.g., IT system controls) with respect to high-risk products and/or business processes. However, regardless of what type of remedial action is taken, such an approach is passive and backward-looking. It does not prevent errors from occurring in the first place.

#### NOTE

- 1) Improving administrative quality could also involve speeding up or streamlining (for the benefit of customers and/or employees) individual business processes, but such efficiency improvements are realized by identifying or improving overly conservative procedures while ensuring accuracy. Their foundation is thus ensuring accuracy.
- 2) The Financial Services Agency's financial inspection manual defines administrative risk as "the risk of financial institutions incurring losses due to their personnel's on-the-job negligence, misconduct, etc."
- 3) NISAs (Nippon Individual Savings Accounts) provide tax-exempt treatment of dividends (distributions) and capital gains from investments in listed equities or investment trusts.

### Example of leading administrative risk management

In contrast to the above, one Japanese financial institution (Bank A) has built a preemptive risk-management model in the aim of improving administrative quality.

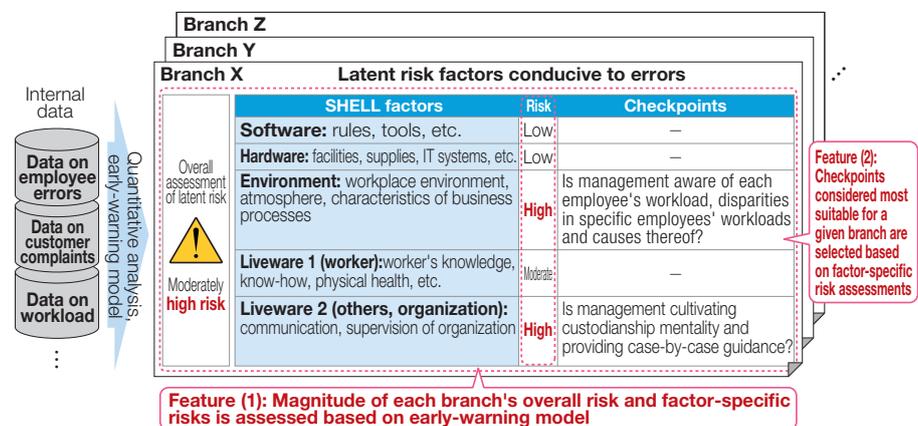
#### <Leading financial institution's early-warning framework>

Bank A has built an early-warning framework that utilizes various internal data to systematically identify portents of errors at the branch level to prevent their occurrence. It built the framework in two stages. First, it constructed model to identify its branches' respective strengths and weaknesses. Second, it devised measures to prevent errors due to the weaknesses.

Bank A first built an early-warning model that assesses escalation of latent risk (changes in conditions) at its branches by comprehensively collecting internal data and quantitatively analyzing the work settings in which errors occur (see diagram). With this model, it quantifies each of its branches' overall latent risk based on pre-categorized metrics (e.g., employee errors, customer complaints). Additionally, by associating each metric with specific factors in advance, Bank A can assess the magnitude of risks associated with each factor and quantify deficiencies (Feature (1) in diagram).

Next, Bank A formulated checkpoints for preventing errors caused by the identified deficiencies based on input from highly experienced employees and created templates incorporating these checkpoints. By so doing, Bank A converted risk management or quality control specialists' intuitive risk assessments into explicit knowledge, enabling

**Exhibit : Monitoring of early-warning signs of administrative risk**



Source: NRI, based on conversations with Bank A

it to provide its personnel with factor-specific checkpoints (Feature (2) in diagram).

### <Implementation>

Although many other financial institutions have previously attempted such a program, none have reported successfully implementing one in practice. In light of such, Bank A's methodology arguably constitutes best practice in administrative risk management. Bank A's success in implementing its framework is attributable to two points.

First, Bank A deprioritized accurately predicting the incidence of errors and focused on quantitatively ascertaining conditions at each branch from the branch manager's standpoint. To do so, it decided to incorporate many metrics into its model and used modeling methods to obtain a stable model even when multiple highly correlated metrics are used. It chose not to use multiple regression analysis<sup>4)</sup>, hitherto the conventional approach.

Second, Bank A used the SHELL<sup>5)</sup> framework to link its model's constituent metrics and error factors with its checkpoint templates. Instead of merely elucidating branch-level risks, it focused on suggesting what actions should be taken. This linked approach has enabled Bank A to use checkpoints that vary based on the metrics' values and formulate and carry out specific front-line prevention activities that minimize the impact of differences in individual employees' experience and skill levels.

### Toward proactive administrative risk management

Customers will continue to expect administrative quality to be the cornerstone of financial institutions' services. To maintain and improve administrative quality amid business expansion and changes in the external environment, financial institutions' administrative risk management must evolve from a passive approach of after-the-fact corrective action in response to errors to a proactive approach revolving around monitoring of early-warning signs.

Financial institutions have much in common with each other in terms of the fundamentals of their operations. The factors that lead to errors likewise do not differ much among different financial institutions. Taking advantage of such commonality, Bank A is reportedly planning to extend its administrative risk management framework's implementation throughout its financial group. Such proactive

4) Multiple regression analysis is not stable when multiple metrics with strong correlations exist. In such cases, one or more of the metrics must be removed from the regression model.

5) SHELL is an acronym for Software, Hardware, Environment, Liveware 1 and Liveware 2, all of which are elements related to people performing their jobs (Liveware 1 refers to the person doing the job and Liveware 2 refers to other people and the organization). The SHELL model is based on the idea that if any of these elements is absent or deficient, business processes will not be performed properly and errors will result. It is used to prevent human errors and analyze their causes in certain industries, including medicine and aviation.

administrative risk management should become the standard among Japanese financial institutions.

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Inquiries to : Financial IT Marketing Department  
Nomura Research Institute, Ltd.  
Marunouchi Kitaguchi Bldg.  
1-6-5 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan  
E-mail : [kyara@nri.co.jp](mailto:kyara@nri.co.jp)

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