High-level Summary: "Report on the State of IT Governance at Financial Institutions"

June 2022







I. Special Topics for BY 2021



O The "Report on the State of IT Governance at Financial Institutions," published June 30, 2021, describes findings from the survey on IT governance and the dialogues with financial institutions that took place in Business Year (BY) 2020 (July 2020-June 2021) on the three thematic topics listed below.

| Topics | | Background | | |
|--------|---|--|--|--|
| 1. | State of DX at financial institutions | ✓ Financial institutions are trying to achieve digital transformation (DX) of their businesses and operations. The FSA held dialogues with the Japanese megabanks and local banks that are advanced in terms of DX. The Report summarizes findings and observations on the latest trends in DX in these banks. | | |
| 2. | Retaining and developing IT human resources | ✓ The BY 2020 IT governance survey found that financial institutions have difficulties in retaining and developing IT human resources. ✓ In BY 2021, the FSA looked into financial institutions' initiatives on how they are addressing such difficulties. | | |
| 3. | Next-generation shared data center scheme | ✓ The BY 2020 Report observed that shinkin banks are more cost-effective than local banks in terms of IT expenses. One of the reasons behind this may be because the IT systems of local banks are larger and more complex than those of shinkin banks. ✓ In BY 2021, the FSA focused on how these financial institutions take actions to cut costs and address complicated and bloated IT systems. The BY Report also explores the views of local banks on how the next generation of their shared-data center for core banking systems is supposed to be. | | |

Note: In June 2019, the FSA published the "Discussion Paper on Issues for Dialogue on IT Governance at Financial Institutions*3 (Discussion Paper)." Since then, the FSA maintains dialogues with financial institutions on IT governance.

^{*1} June 30, 2021:[https://www.fsa.go.jp/news/r2/20210630/20210630.html].

^{*2} The dialogues were held based on the results of a survey to financial institutions that were jointly conducted with the Center for Financial Industry Information Systems (reference date: March 31, 2021).

^{*3} June 21, 2019:[https://www.fsa.go.jp/news/30/20190621-3.html].

1. The State of DX at Financial Institutions



- O The Report divided financial institutions by digital transformation (DX) status into four different generations from the first generation, which took an initial step to launch DX, to the fourth generation, which provides platforms for digital financial services. Some leading regional banks reached the second generation. In addition, some further advanced local banks and megabanks that achieved the digitalization of internal business operations reached the third generation.
- O Financial institutions in the second and third generations made strategic investment in DX based on the medium to long-term strategies and achieved organizational reforms to promote DX. At present, no regional banks or megabanks have yet reached the fourth generation, where they would benefit from DX to expand their businesses and cultivate new markets. Even leading banks are still exploring how they could benefit from DX and what new business models could be, such as being a provider of financial platforms.

Traditional banking businesses

- Use of paper and seals in procedures
- Face-to-face services oriented
- Dependent on vendors for IT

First generation launching DX

- Establishment of a DX division
- Digitalization of some operations
- Proof of concept investment tests

Second generation promoting DX

- Development of DX promotion arrangements
- Provision of nonface-to-face services
- Independent system development

Third generation DX realized in services

- · Digital transformation of services, business operations and personnel management
- Enhancement of IT and digital human resources
- API infrastructure development

Fourth generation financial platform providers, etc.

- Embedded finance
- Digital securities/assets
- System architecture supporting DX

| Discussion points | Relevant items | | |
|----------------------------|--|--|--|
| DX strategy | | | |
| Arrangements to promote DX | ⇒Internal development or outsourcing | | |
| Investment in DX | ◇Investment value ◇Strategic and nonstrategic domains ◇Investment control process ◇Investment effects | | |
| DX initiatives | ♦ Customer services ♦ Operational reform ♦ Digitalization of branches ♦ Regional alliance | | |



Discussion points

Digital shift



2. Retaining and Developing IT Human Resources



O The overall trend in the survey results (2021) is similar to that of the previous year (2020).

See Table A

O The active engagement of the management team and organization-wide efforts are important for retaining and developing IT human resources because they require long-term efforts.

See Table B

O Some financial institutions are developing "digital human resources" to promote DX, including raising awareness and motivation. Financial institutions should clearly set their strategies for DX and develop digital human resources to support the implementation of their strategies.

See Table C

Survey results on IT human resources (the numbers show the percentages of respondents answering "yes" to respective questions):

| Table A | Regional banks | | Shinkin banks | |
|--|----------------|---------------|---------------|---------------|
| Questions | BY 2020 (%) | BY 2021 (%) | BY 2020 (%) | BY 2021 (%) |
| Have you formulated a medium to long-term plan to secure and develop IT human resources | 53.4 | 58.0 | 20.5 | 19.3 |
| Have you formulated a career path for IT human resources? | 42.7 | 48.0 | 4.3 | 5.9 |
| Have you developed standards and methods for assessing the skills of IT human resources? | 45.6 | 47.0 | 8.3 | 9.8 |
| Have you established a training system to develop IT human resources? | 43.7 | 46.0 | 7.9 | 7.9 |
| Have you established any recruitment system to secure IT human resources? | 55.3 | 60.0 | 16.1 | 18.5 |
| Have you established any system to encourage employees to acquire IT-related qualifications? | 89.3 | - (No survey) | 35.4 | - (No survey) |
| Have you implemented measures to all staff to improve their IT and digital literacy? | 59.2 | 79.0 | 28.0 | 36.2 |
| Have you implemented any other initiatives to secure and develop IT human resources? | 35.9 | 47.0 | 12.2 | 13.4 |

Comments submitted by financial institutions on the retention and development of IT human resources:

Leadership, organization-wide initiatives

- ✓ Management teams should proactively (i) clarify future IT strategy directions, (ii) identify the human resources required for executing IT strategies and (iii) provide opportunities for staff with IT skills to exercise their capabilities.
- ✓ The IT department should work with HR and a corporate strategy department in <u>formulating plans to retain and develop IT</u> human resources in an organization-wide manner.

Awareness-raising for innovation, boosting

Table C

motivation

- ✓ Unless employees at banks gain a good understanding of IT and DX, there will be no added value that has an impact on their businesses.
- ✓ <u>To promote the development of IT human resources, financial institutions should give clear roles and responsibilities to staff, maintain and boost their motivation, and increase satisfaction among the staff.</u>



3. Next-Generation Shared Data Centers



O In response to the questionnaire, regional banks indicated that they are trying to improve the cost effectiveness of IT systems by developing slimmer IT systems that are more open at shared data centers that would reduce costs and restructure complicated and bloated IT systems.

Trend toward open IT systems

According to the survey results, 80% of core IT systems used by regional banks are expected to migrate to open IT systems (including fully open or partly open IT systems) in 10 years.

Advantages of open IT systems

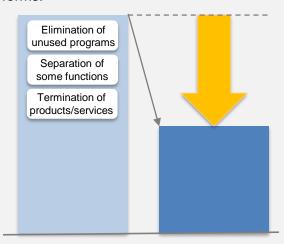
- Reduction in maintenance cost
- ✓ More options of hardware/software

✓ Easier to recruit engineers for system development

Examples of approaches to addressing complex and bloated IT systems

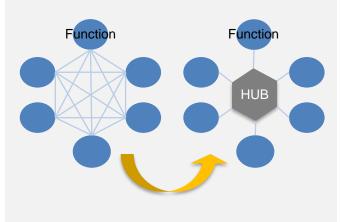
Streamlining

Banks can streamline their IT systems by eliminating of unused programs, separating some functions, terminating products/services, and eliminating unnecessary templates and forms.



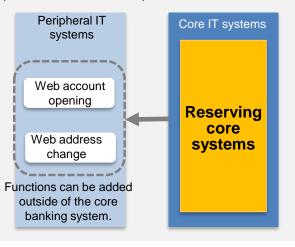
Decomposing

Banks could avoid having a tightly coupled system by decomposing functions/services into components that help to make system refurbishment more efficient.



Preserving

Banks can avoid having complicated and bloated IT systems by developing new functions outside of the core IT systems, which would make IT system development quicker and more inexpensive.





II. Trends in Regional and Shinkin Banks - Cost Effectiveness and IT talent



- O The cost effectiveness of expenditures related to IT systems over the total amount of deposits declined by 0.01% both for regional banks and shinkin banks.
 - ✓ The increase in the total amount of deposits of regional banks as a whole is larger than that of the cost related to IT systems.

See Table A

- ✓ At shinkin banks, system-related costs declined while the total amount of deposits increased.
- O With respect to IT governance, the trend remains similar to the survey results of the last year.
 - The percentage of regional banks that answered "yes" to the question of whether or not they took any initiative to improve IT literacy for employees increased by approximately 20 points. The percentage of shinkin banks that answered "yes" to the question of whether or not they appointed staff responsible for digital business promotion increased by approximately 10 points.

 See Chart A & Table B
- O With respect to initiatives for new IT and digital technologies, both regional and shinkin banks made progress on the use of cloud services and data utilization, such as the use of artificial intelligence and robotic process automation (Al/RPA). Particularly, shares for regional and shinkin banks that introduced Al increased by more than 5 points from BY 2020 (by 10.6 points for regional banks and by 5.9 points for shinkin banks).

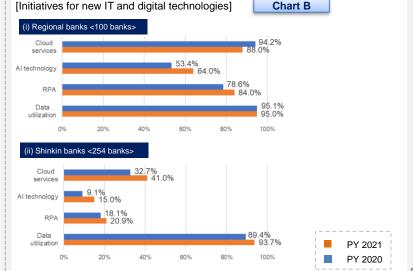
 See Chart B

| [Efficiency of IT system-related costs] Table A | | | | | | |
|---|------------------------|------------------------|------------------------|-----------------------|--|--|
| | Regional banks | | Shinkin banks | | | |
| | PY 2020 (103 banks) | PY 2021 (100 banks) | PY 2020 (254 banks) | PY2021 (254 banks) | | |
| BS Deposits (average) | 3.4 trillion yen | 3.9 trillion yen | 571.9 billion yen | 612.6 billion yen | | |
| P/L System costs (average) | 4.9 billion yen | 5.2 billion yen | 610 million yen | 600 million yen | | |
| Indicator System costs / deposits | 0.17% | <u>0.16%</u> | 0.11% | <u>0.10%</u> | | |

| [Ourvey results on 11 governance] | | | Tubic B | | |
|-----------------------------------|-------------------------------|---|----------------------|---------|--------|
| | Question | | "Yes"-response share | | |
| | Concept/p oint to check | Question (overview) | PY 2020 | PY 2021 | Gap |
| Regional banks | IT resources | Is there any initiative to improve IT literacy for all employees? | 59.2% | 79.0% | +19.8% |
| Shinkin banks | IT strategy | Have you appointed responsible persons for digital business promotion? | 40.9% | 52.0% | +11.1% |

[Survey results on IT governance]

[Percentage shares for respondents answering "yes" to questions on whether specific initiatives are implemented, by point to check regarding IT governance] Chart A (i) Regional banks <100 banks> (ii) Shinkin banks <254 banks> % of "yes" (average): about 74% in PY 2021, about 74% in PY 2020 % of "yes" (average): about 47% in PY 2021, about 47% in PY 2020 [Management's [Management's leadership] leadership] [IT risks] [IT strategy] [IT risks] [IT strategy] [IT investment IIT investment organization] organization1 PY 2021 PY 2020 [IT resources] [IT resources]



Major findings from the survey



III. Future FSA Initiatives



- O The results of the 2021 survey indicate that structural transformation requires the development of human resources with digitalization skills. In this context, the FSA added questions on DX to the 2022 questionnaire.*4 In Business Year (BY) 2022, the FSA will continue dialogues with the industry to monitor the further development and effectiveness of initiatives related to digital transformation and IT governance at financial institutions.
- O In BY 2022, the FSA will update the "Discussion Paper on IT Governance," published in June 2019, to incorporate the recent developments on digital transformation in the financial industry based on the 2021 survey results. The FSA will also update a compendium of case studies, which is attached to the Discussion Paper, based on the survey results.

FSA's plan

Development of supervisory viewpoints on digital transformation as part of IT governance

✓ In the survey on DX initiatives, the FSA held constructive talks with financial institutions based on the four points to check - "DX strategy," "DX promotion arrangements," "DX investment" and "DX initiatives" - and identified relevant trends at megabanks and regional banks and key factors for successful DX initiatives. The FSA will consider incorporating the 2021 DX survey results into the "IT Governance Discussion Paper" to establish supervisory viewpoints on DX.

> Providing support at the "Support Desk" for financial institutions that are front runners on IT systems

✓ The FSA expanded the scope of the Support Desk for Front Runners on Core IT Systems*5 by transforming it into Support Desk for Front Runners on IT Systems in Financial Institutions to cover not only core systems but also other IT systems. The FSA will continue providing support from the early stages of system development from the viewpoints of compliance and supervision, including IT governance and IT risk management.

> Promoting use of case studies

✓ From BY 2019 to BY 2021, the FSA collected and published case studies*6 on IT governance in accordance with the supervisory viewpoints described in the "IT Governance Discussion Paper." The FSA will update those case studies based on the knowledge obtained through dialogues with financial institutions and experts. In addition, the FSA will promote an understanding of IT governance among financial institutions and use of case studies by communicating with the financial industry.

^{*4} Questions were added to Financial Industry Information Systems' (FISC's) survey.

^{*5} Through the revamp, the requirement for financial institutions to file prior applications for support was abolished for easier consultations. At the same time, support was enhanced to accept consultations not only on enterprise systems but also on information systems, as well as API interaction/linkage with external systems.

^{*6} Collection of case studies on financial institutions' IT governance (reference guide) (published on June 30, 2022)