Survey on Household Accounting Services

April 2020

Japan Fair Trade Commission

Table of Contents

Chapter 1 Purpose/Method of Survey

1. Purpose of Survey

These days, the finance sector sees the entry of businesses using FinTech[1] (hereinafter "FinTech Enterprises") to provide household accounting services[2] for individuals and accounting services for small and medium-sized enterprises and one-person businesses. These services use new technology to provide users with new value by helping them manage financial assets and analyzing the condition of the holding of financial assets to provide advice according to user needs.

When more FinTech Enterprises enter the sector, promoting active competition, convenience for users will be improved, and account information and other various data kept in banks will be accumulated in FinTech Enterprises, so that the creation of new services using such data will be expected. However, if there are factors interfering with the new entry of FinTech Enterprises or post-entry business activities, it may preclude the expected improvement in convenience and other results from being fully attained.

For that reason, the Japan Fair Trade Commission decided to conduct a survey into the field of household accounting services and accounting services provided using FinTech from the perspective of whether there are any business practices or regulations interfering with new entry or post-entry business activities and grasp the actual conditions of transactions across the field and summarize issues under the antimonopoly act and market competition policies from the viewpoint of maintaining a competitive environment.

2. Survey Subjects and Survey Method

The survey was conducted through interview surveys or questionnaires to businesses and consumers[3] as stated in the following (1) and (2).

(1) Interview surveys (performance period: Oct. 2019 to Mar. 2020)

Bank[4]: 26 banks

FinTech Enterprise providing household accounting services or accounting

---

[1] FinTech is a coined term that combines "finance" and "technology" and refers to a new financial service created by combining financial services and information technology.

[2] While the services are sometimes called asset management services, they are referred to as household accounting services in this survey.

[3] The term "Interview surveys" or "questionnaires" used hereinafter in this report refer to the interview surveys or questionnaires under this paragraph.

[4] This survey was conducted on Japanese banks.

services (electronic payment service provider[5]): 7 companies

System vendor: 8 companies

Industrial association: 1 organization

Total: 42 entities

(2) Questionnaires (performance period: Nov. 12, 2019 to Jan. 31, 2020)

(i) Businesses

Bank: 137 banks (responses: 129)

Electronic payment service provider: 60 companies[6] (responses: 44)

System vendor: 8 companies (responses: 7)

Total: 205 businesses (responses: 180; return: 88%)

(ii) Consumers

Two thousand consumers using household accounting services

	10s	20s	30s	40s	50s	60s	70s and older	Total
Man	47	112	228	281	244	295	79	1,286
Woman	40	131	186	133	114	87	23	714

Chapter 2 Basic Structure of Household Accounting Services

1. Outline of Household Accounting Services

As stated in Chapter 1, section 1, above, this survey was conducted on household accounting services for individuals and accounting services for small and medium-sized enterprises and one-person businesses. While the features of household accounting services and accounting services vary by service as described in the following (1) and (2), their principal characteristic is that when a user registers a savings account, credit card number, etc., in the application downloaded on a smartphone, tablet, etc., multiple pieces of information (including information on account activities, such as withdrawal and depositing of money and the use of credit cards) will be automatically recorded enabling the user to check their conditions in an integrated fashion. As seen above, while both services are provided to different users, they equally acquire account information from a bank and provide services to

[5] Meaning the "electronic payment service provider" under paragraph 18 of Article 2 of the Banking Act (Act No. 59 of 1981)

[6] The questionnaires were conducted on those registered as electronic payment service providers at the time of their commencement (November 13, 2019).

the user by using it, so that in this survey, they are collectively called household accounting services.

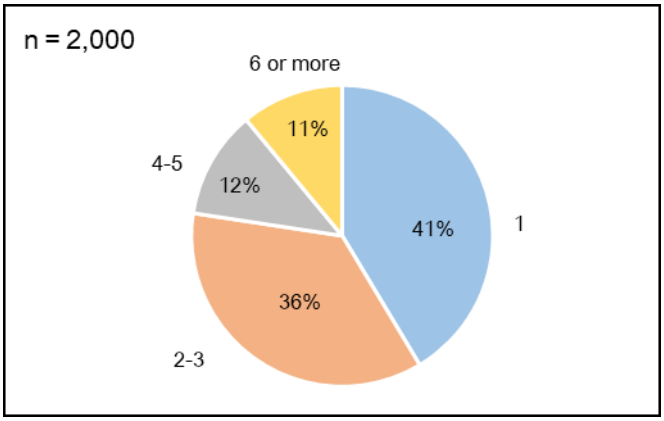
The account information acquired by a business providing household accounting services and information created using the account information may be also used by the bank for its loan business.

(1) Household accounting services

The household accounting service means a service where income and expenditures with multiple savings accounts, credit cards, etc., are automatically recorded in the application downloaded on a smartphone, tablet, etc., and a household account book is created. When a user registers the information on personal savings accounts, credit cards, etc., the amounts of income and expenditures will be automatically reflected on a daily basis in the household account book and recorded as assorted for such relevant items as food expenses and utility charges. This enables the user to check in one household accounting service the withdrawal and depositing of money with multiple savings accounts, shopping history with credit cards, and other information. The service may also provide, for example, a feature by which the user can take images of receipts with the smartphone's camera, so that the information on cash payments will be automatically recorded in the household account book.

In the questionnaires to consumers, more than half of the users of household accounting services responded that they have registered more than one savings account in the application of one household accounting service (Fig. 1).

Fig. 1: Number of savings accounts registered in a household accounting service

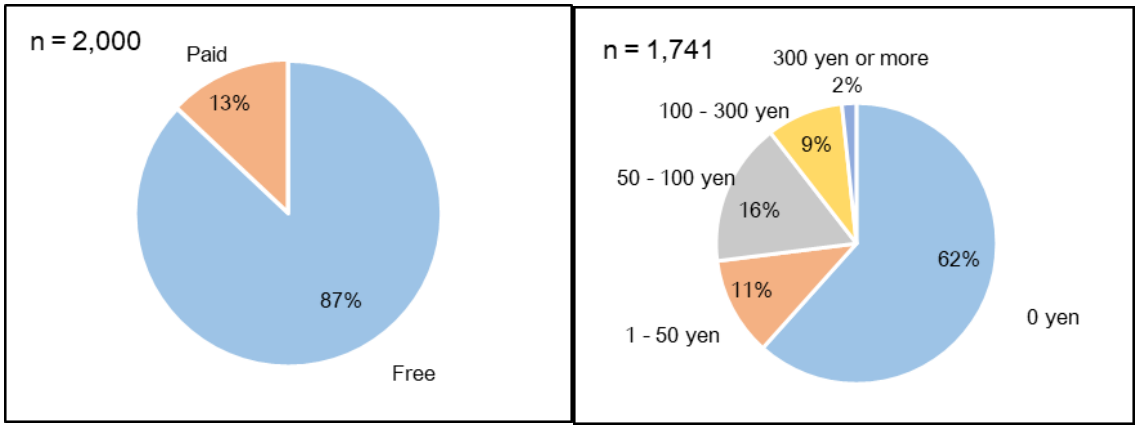


Source: Results of questionnaires to consumers

Currently, there are five major businesses providing such household accounting services,[7] and the number of users registering savings accounts reached approximately 5,000,000 in aggregate.[8] Many household accounting services provide a free version and a paid version, and the paid version provides, in addition to the above basic features of household accounting services, for example, a feature to analyze the conditions of household finances based on the information from the created household account book and suggest improvements in finances or to notify the expiration date of points. Moreover, the paid service provides no advertising on the screen. The fee for a paid service is about 300 through 500 yen per month for all companies. In this respect, approximately 90% of the users of household accounting services responded in the questionnaires to consumers that they were using free-version services, and that approximately 60% of the users of free-version services would not use the services they currently use were they not free (Fig. 2 and Fig. 3). More than 60% of the users believe that the services should be free of charge in the first place because "they just enable them to check their own information" (Fig. 4).

Fig. 2: Which of free plans or paid plans users use (left)

Fig. 3: Monthly fee users are willing to pay for service contents equivalent to the one they are using (for free members) (right)

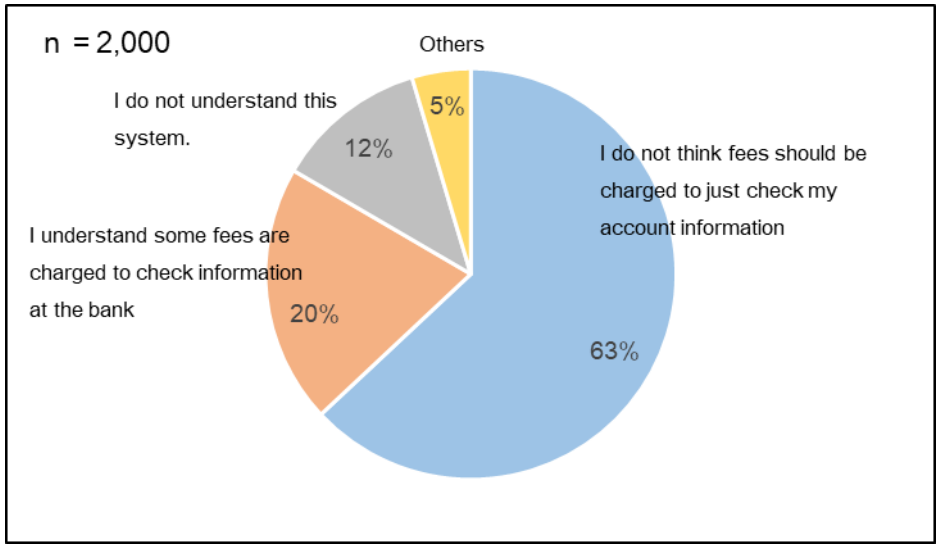


Source: Results of questionnaires to consumers

[7] The figure was obtained by summing up responses to questionnaires and from interview surveys of businesses.

[8] The figure was obtained by summing up responses to questionnaires.

Fig. 4: What users would think if a fee is charged when they check their own account information



Source: Results of questionnaires to consumers

The businesses providing household accounting services earn their income mainly from charging fees for paid services and charges for advertising placed in the application.

(2) Accounting services

The accounting service means a service assisting small and medium-sized enterprises and one-person businesses in accounting and tax returns. The basic features are the same as a household accounting service, which uses information on the savings accounts etc., of small and medium-sized enterprises or one-person businesses to automatically record account activities, such as the withdrawal and depositing of money in the account books assorting them into the respective accounts or automatically create financial statements.

The data on account activities, such as the withdrawal and depositing of money, may also be used for the loan procedure of banks and other institutions. This enables a small and medium-sized enterprise or one-person business using the service to omit such as the submission of documents showing their financial standing to banks and other institutions as usually required when getting a loan, so that the time required for the loan procedure will be shortened.

Currently, there are six major businesses providing such accounting services,[9] and the users registering savings accounts reached approximately 500,000 in the aggregate.[10] The accounting services are mostly paid services, and the usual monthly fee is several thousand yen. The businesses providing such accounting services earn income mainly from the prices for service provision.

2. Acquisition of Account Information

(1) System for information acquisition

As described in the preceding section 1, in order to provide services, a business providing household accounting services needs to acquire information on users' bank accounts. Account information kept at a bank is managed in a core banking system (described in the following section 3(2)), which carries the transaction function for deposits, financing, fund transfer, and the like in the bank. Accordingly, to acquire account information, the service needs to access the core banking system. The core banking system is also accessed when the bank balance is checked or money is transferred in an ATM or internet banking (IB) service[11] (hereinafter the "IB service").

Businesses providing household accounting services have hitherto provided household accounting services for users of an IB service, and when acquiring account information for the IB service, they used a method called web scraping, which receives the password and other information related to the IB service from the user and accesses, on behalf of the user, the core banking system to acquire the information. Until May 31, 2018, a business providing household accounting services had not been required to be registered under the act but could engage in the business without restrictions.

(2) Amendment of the Banking Act

As described in the foregoing (1), user had entrusted passwords and other information to the business providing household accounting services using the method called web scraping, so that a concern had been raised over information security. Moreover, there was not any contractual relationship between a business

---

[9] The figure was obtained by summing up responses to questionnaires and from interview surveys of businesses. One of the businesses also provides household accounting services.

[10] The figure was obtained by summing up responses to questionnaires.

[11] The internet banking service enables the user of a bank adopting an internet banking system, upon application for the service, to access the system of the financial institution by connecting a PC, smartphone, or other terminal to the Internet to check the bank balance or transfer funds. The service is separated for those for individual accounts and those for corporate accounts.

providing household accounting services and the bank; accordingly, it was not clear where liability would lie if a user incurred damage. And, it was difficult for a bank to judge from the appearance whether the IB service was accessed by the user or web scraping by a business providing household accounting services, which makes the management of such connections impossible.

Considering those issues, the Banking Act was amended in 2017 [12] to develop an institutional framework for promoting open innovation (meaning innovation through collaboration and cooperation) with FinTech Enterprises, which include businesses providing household accounting services while securing the protection of users. As a result, businesses providing household accounting services came to be required, in order to engage in their business, to be registered as electronic payment service providers and conclude contracts with banks concerning the electronic payment services. On the other hand, banks were required to strive to develop a system by which electronic payment service providers may acquire account information without web scraping.[13] Since then, electronic payment service providers have used, as a rule, technology called APIs when acquiring account information.

API is the abbreviation for application programming interface and refers to an access system for safely using functions and data of another system. By using an API, an electronic payment service provider may access a core banking system without the user's password and other information on the IB service (hereinafter, accessing a core banking system with the use of an API is referred to as "API connection," and releasing an API for other enterprises to enable them to access is referred to as "open API").

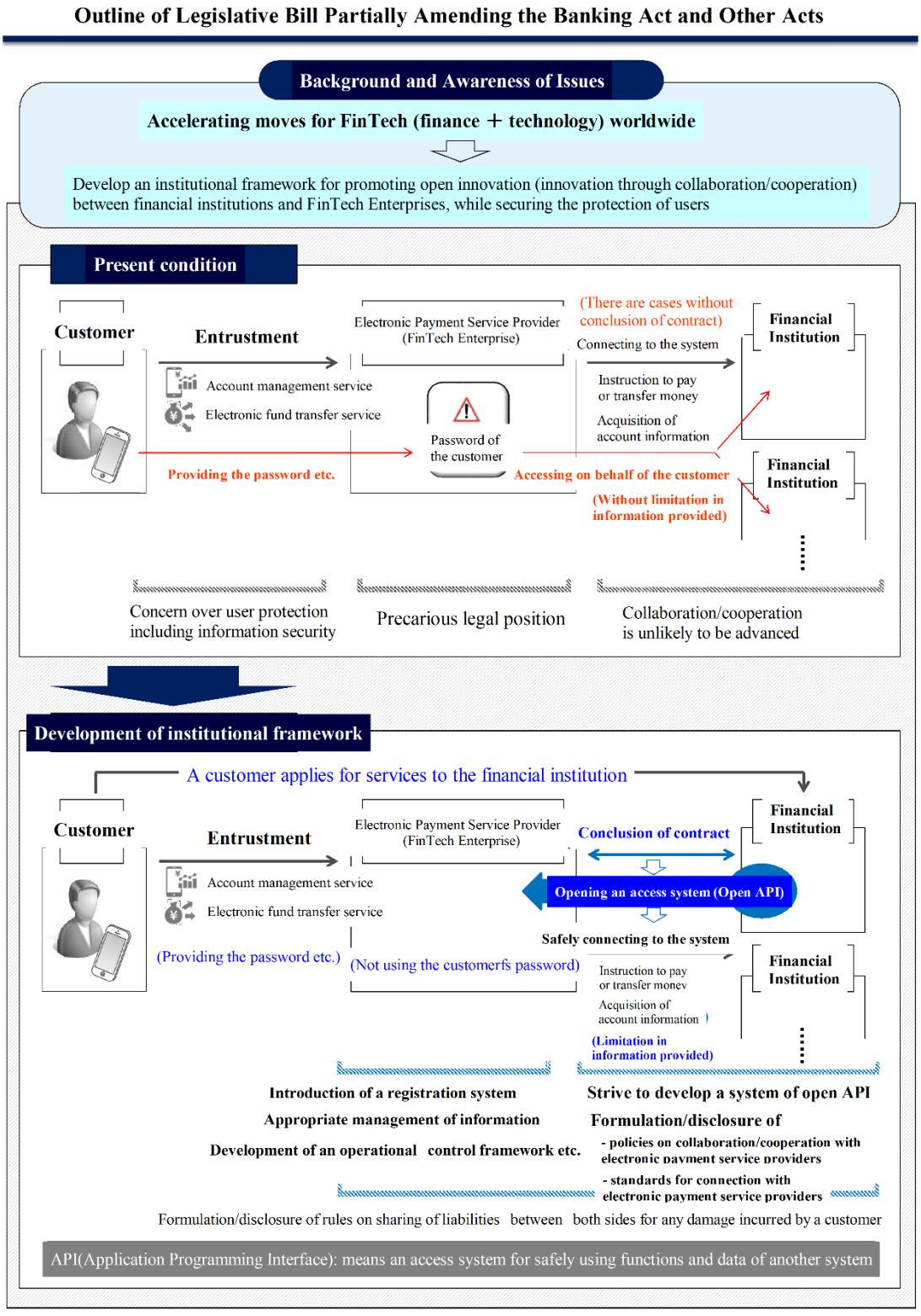
Previously, with web scraping, any information that could be referred to in the IB service became accessible, and in some instances, it was even possible to acquire not only information on ordinary savings accounts but also that on accounts in foreign currencies, investment trust accounts, etc. However, the Banking Act does not provide any specific stipulation regarding the scope of information that may be acquired by an API connection, and it is left to each bank to decide what information may be accessed.

---

[12] The Act Partially Amending the Banking Act and Other Acts (Act No. 49 of 2017; hereinafter the "Act Amending Banking Act")

[13] Article 11 of Supplementary Provisions of the Act Amending Banking Act

Fig. 5: Outline of the Act Amending Banking Act



Source: Created by the Japan Fair Trade Commission based on FSA's website

(3) Procedure under the Banking Act

A. Registration of electronic payment service providers

Under the Banking Act, electronic payment services are classified into (i) the services to communicate, upon a depositor's entrustment, the direction for transfer or other transactions to the bank (services under item 1) and (ii) the services to acquire, upon a depositor's entrustment, account information kept by the bank to provide it to the depositor (services under item 2).[14] Out of those services, household accounting services fall under the services under item 2. As described in (2), those engaged in the business are required to be registered as electronic payment service providers.

To be registered as an electronic payment service provider, a business needs to develop a system to perform electronic payment services in an appropriate and secure fashion, including proper handling and security management of users' information acquired in connection with the electronic payment services.

B. Conclusion of contracts with banks

Under the Banking Act, an electronic payment service provider needs to conclude a contract concerning electronic payment services with each bank to acquire account information kept by the bank and set forth the following particulars in the contract[15]:

(i) Particulars concerning the sharing of liability between the bank and the

---

[14] The legal definition:

○The Banking Act (Act No. 59 of 1981) (excerpt)

(Definitions)

Article 2

17 The term "electronic payment services" as used in this Act means the business of performing any of the following activities (excluding the activities set forth in item (i) that are performed in order to enable a depositor as prescribed in that item to make periodic payments to a specific person and any other activities specified by Cabinet Office Order as those that are found to be less likely to result in insufficient user protection):

(i) Upon entrustment (including entrustment at two or more degrees of separation from the original entrustment) from a depositor that has opened an account for deposits with a bank, receiving a communication of an instruction addressed to the bank (including the content of the instruction alone) to execute a fund transfer transaction for transferring funds in that account and communicating the instruction to the bank by a means that employs an electronic data processing system (limited to a communication made by a method specified by Cabinet Office Order, in the case of a communication of the content of the instruction alone)

(ii) Upon entrustment (including entrustment at two or more degrees of separation from the original entrustment) from a depositor that has opened an account for deposits or installment savings with a bank, acquiring information on that account from the bank and providing it to the depositor (including provision of that information via another person and provision of information created by processing that information) by a means that employs an electronic data processing system

[15] Paragraph 2 of Article 52- 61-10 of the Banking Act

electronic payment service provider for any loss or damage caused to a user in connection with electronic payment services

(ii) Particulars concerning measures to be implemented by the electronic payment service provider for proper handling and security management of users' information acquired in connection with the services and measures that may be implemented by the bank when the electronic payment service provider fails to implement the above measures.

The bank is required to prepare and disclose standards for particulars asked of an electronic payment service provider as concerns its entry into a contract.[16] The standards must include matters concerning measures for proper handling and security management of users' information acquired by the electronic payment service provider in connection with its services and matters concerning a system to be developed to secure proper execution of the services.

C. Time limit for conclusion of contracts

The Act Amending the Banking Act provides for transitional measures for businesses that have provided household accounting services before the amendment of the Banking Act (hereinafter "existing businesses"), which requires them, in order to continue their services, to apply for the registration within six months from the date of enforcement of the Act (June 1, 2018),[17] and by May 31, 2020,[18] to conclude contracts with banks concerning electronic payment services.[19]

3. System for API Connection

(1) Development of API connection infrastructure in banks

For API connections, a bank needs to develop a system called the API connection infrastructure to enable electronic payment service providers to access its core banking system through the internet network.[20] The bank must also give

---

16 Article 52- 61-11 of the Banking Act

17 Paragraph 1 of Article 2 of Supplementary Provisions of the Act Amending Banking Act

18 The Financial Services Agency announced on April 14, 2020, that the time limit for conclusion of contracts would be put off to September 30, 2020, in that case, despite manifestation of an intent by both banks and electronic payment service providers to conclude contracts by May 31, 2020, that could not actually conclude contracts by the date because of the spread of COVID-19 infection. (https://www.fsa.go.jp/ordinary/coronavirus202001/press_20200414.html).

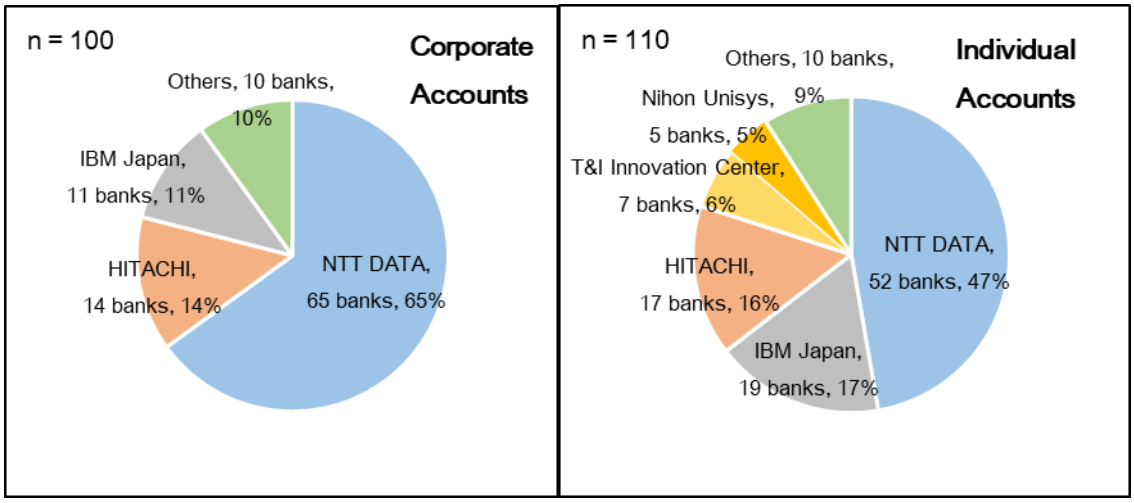
19 Paragraph 4 of Article 2 of Supplementary Provisions of the Act Amending Banking Act

20 The API connection infrastructure is separated for those for corporate accounts and those for individual accounts

consideration to the scope of account information that may be acquired with the API connection, and the API connection infrastructure will be developed based on it. Generally, a bank entrusts the development and operations to an enterprise engaging in the development, manufacture, sale, maintenance, and the like of software and hardware (system vendors[21]).

There are currently at least 12 companies of system vendors[22] to whom banks entrust the development and operation of the API connection infrastructure. The top three companies of system vendors currently develop the API connection infrastructure of banks for approximately 90% of corporate accounts and approximately 80% of individual accounts (Fig. 6).

Fig. 6: System vendors to whom banks entrust development and operation of API connection infrastructure (left: corporate accounts; right: individual accounts)



Source: Results of questionnaires to banks

APIs are classified into two types depending on their function; one is update-line APIs for updating account information (including updates for transfer) and reference-line APIs for referring to account information (including reference to account balance). Out of those, the reference-line API is required by electronic

depending on the classification of subject accounts, and it needs to be developed for each classification of accounts.

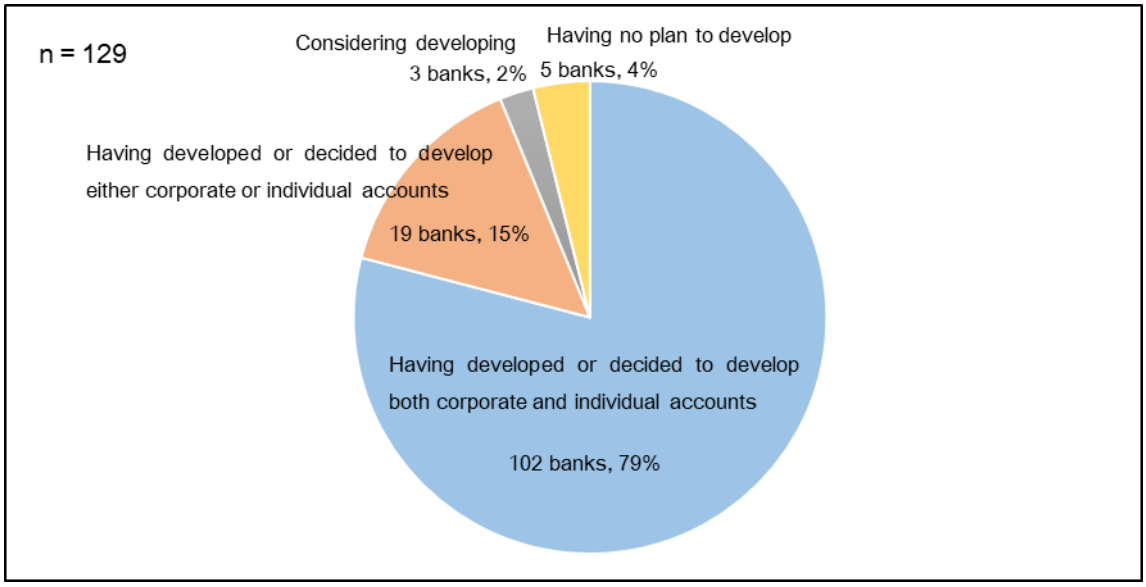
[21] The system vendors handling bank systems include major domestic IT system companies and computer-related companies.

[22] The figure was obtained by summing up responses to the questionnaires.

payment service providers to provide household accounting services.[23] For the development of the API connection infrastructure, Follow-up on the Growth Strategy (approved by the Cabinet on June 21, 2019) states that "it is aimed that by June 2020, open APIs will have been introduced in at least about 80 banks." In this respect, 102 banks responded in November 2019 that they had developed, or decided to develop, the API connection infrastructure both for corporate accounts and individual accounts (Fig. 7).

[23] The APIs hereinafter refers to reference-line APIs.

Fig. 7: Condition of development of API connection infrastructure in banks



Source: Results of questionnaires to banks

(2) Core banking systems

A core banking system in a bank is a mission-critical system carrying the transaction function for deposits, financing, fund transfer, and similar functions. The core banking system requires a large investment for its development and operations; the amount of the initial investment reaches several tens of billions to several hundreds of billions of yen for a so-called city bank, and the amount of operating expenses reaches several tens of billions per year. Since the last half of the 1990s, there have been moves for the common use of a core banking system among regional banks[24] mainly from the viewpoint of cost reduction, where multiple banks jointly entrust a single system vendor with all development and operation of their system, and jointly use one core banking system. As of June 2019, about 90% of regional banks used a system in common use.[25]

For banks, a system in common use has the benefit of reducing system expenditures, including personnel expenses, because multiple banks jointly bear expenses for operations and revamping of the system and allowances for personnel with knowledge of the system.

On the other hand, as a disadvantage of common use, changes of system

[24] So-called local banks that are members of the Regional Banks Association of Japan and so-called second-tier local banks that are members of the Second Association of Regional Banks are hereinafter collectively referred to as regional banks.

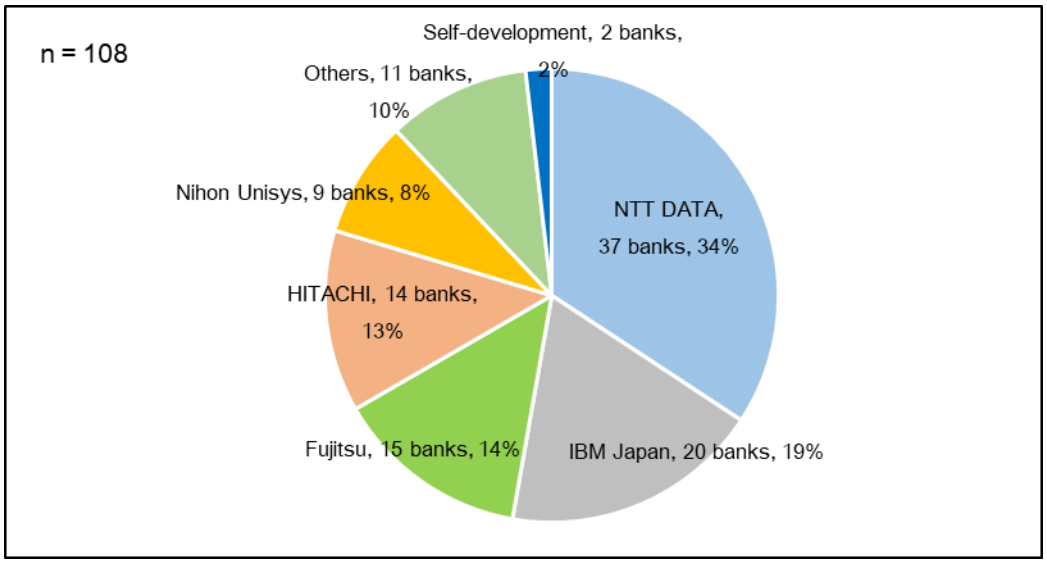
[25] *White Paper on Financial Information Systems* (2020 Edition) compiled by the Center for Financial Industry Information (p. 134)

specifications are restricted. Changing specifications of a system in common use usually necessitates coordination of opinions with other banks.

Regardless of whether a core banking system is used by one bank or jointly used by more than one bank, banks rarely switch the system vendor of a core banking system, and the questionnaires to banks found that about 10% of the banks have ever switched system vendors of their core banking systems (excluding banks that stated, as the reason, participation in common use or business integration). In the interview surveys of banks, they stated, as reasons why they did not switch system vendors, the necessity for costly initial costs and effects on customers, including the necessity for partial suspension of the services during the transitional period.

The questionnaires to banks found that the system vendors to whom the responding banks entrusted the development and operation of their core banking systems were as shown in Fig. 8, and the top three companies performed the development and operation of core banking systems for approximately 70% of the banks and the top five companies for approximately 90% of the banks.

Fig. 8: System vendors to whom banks entrust the development and operation of core banking systems



Source: Results of questionnaires to banks

(3) Connection scheme with a core banking system

In developing the API connection infrastructure, it is necessary to connect the API connection infrastructure to the core banking system, and there are roughly

two schemes for it. One is a scheme that newly build a system called a gateway[26] to connect the API connection infrastructure to the core banking system, by which both are directly connected (hereinafter the "direct connection scheme") (Fig. 9-1), and the other is a scheme to develop the API connection infrastructure in an existing internet banking system[27] (hereinafter an "IB system") to use the gateway already built between the core banking system and the IB system or the personal authentication function provided in the IB system (hereinafter the "IB-use scheme") (Fig. 9-2). The following discusses the characteristics of both connection schemes.

Fig. 9-1: Conceptual diagram of API connection (direct connection scheme)

Source: Created by the Japan Fair Trade Commission based on interview surveys of businesses, etc.

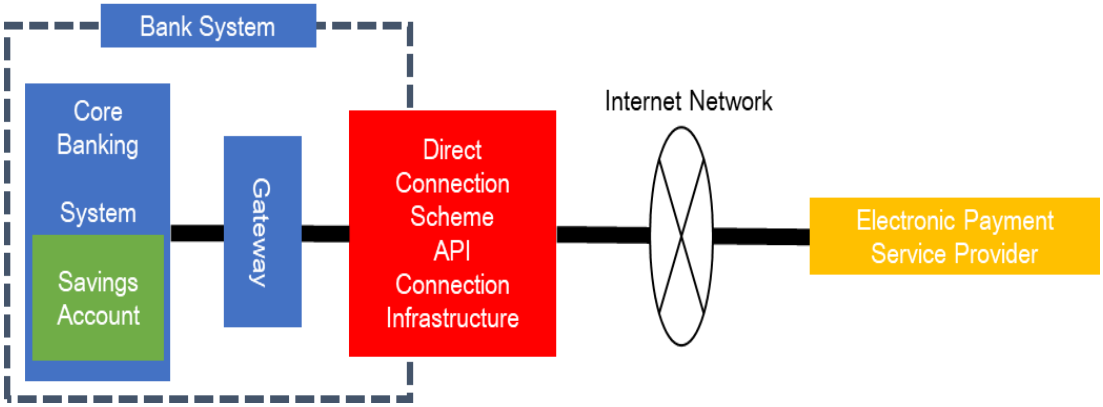
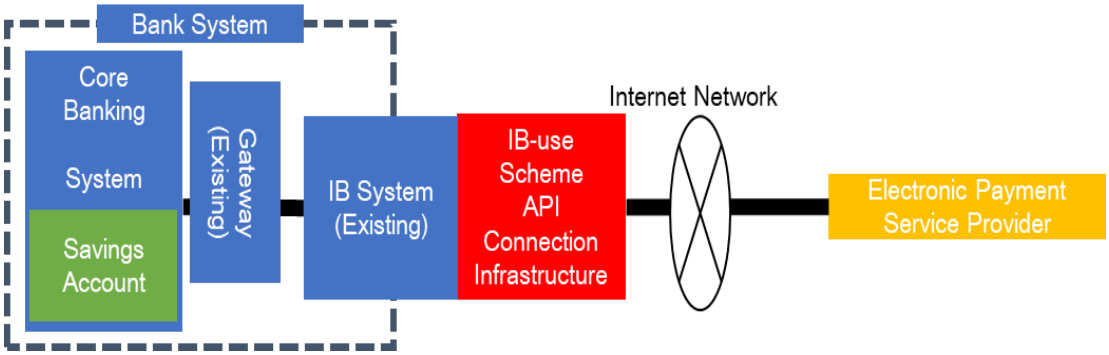


Fig. 9-2: Conceptual diagram of API connection (IB-use scheme)



Source: Created by the Japan Fair Trade Commission based on interview surveys of businesses, etc.

[26] It is a system to exchange information between a core banking system and API connection infrastructure, and sometimes called API adapter or internal API. Systems required for connecting different systems are hereinafter referred to as gateways.

[27] A system required for providing an IB service to bank users

A. Direct Connection Scheme

The direct connection scheme requires build-out of a gateway, and thus the work of developing the API infrastructure takes longer than the IB-use scheme described in B below result in higher initial costs. Generally, the running costs charged every month in using the system (including usage fees and maintenance fees), which the bank pays to the system vendor, are often a fixed amount.

In the case of the direct connection scheme, not only users of the IB service but all persons with savings accounts in the bank may receive services using the API connection. It is also beneficial to the bank because the bank may provide users with various services using an API depending on its ingenious ideas by revamping the API connection infrastructure.

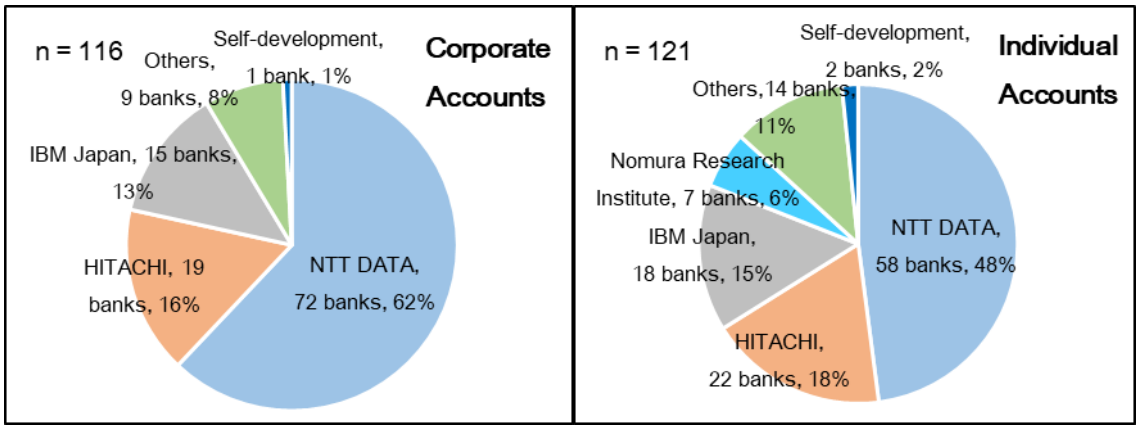
B. IB-use Scheme

(A) IB System

An IB system is a system that enables a user, for example, to check the account balance through the internet, where there is already a gateway between the system and the core banking system, and it is also provided with a personal authentication function from a viewpoint of security. IB systems have been introduced in banks since the last half of the 1990s, and they are generally maintained and operated by system vendors.

According to the questionnaires to banks, the responding banks entrust the development and operation of their IB systems to the system vendors shown in Fig. 10, and the top three companies perform the development and operation of IB Systems for approximately 90% of the corporate accounts and approximately 80% of the individual accounts.

Fig. 10: System vendors to whom banks entrust development and operation of IB systems (left: corporate accounts; right: individual accounts)



Source: Results of questionnaires to banks

Technically, an IB system may be also developed by any system vendor other than the system vendor that has developed the core banking system. In fact, the questionnaires to banks found that at least 30% of the banks provided with an IB system entrusted the development and operation of either the IB system for corporate or individual accounts to a different system vendor than the one to whom the development of the core banking system had been entrusted.

A pay-for-use system (fees are charged per access or based on the number of accesses during a given period) is applied to running costs of an IB system, especially among regional banks. In this case, the more users access the system, the higher the cost that a bank pays to the system vendor will become.

In the interview surveys of banks and system vendors, it was pointed out that a system vendor of the IB system is rarely switched in light of the initial costs and effects on customers as in the case of core banking systems.

(B) Characteristics of the IB-use Scheme

When developing the API connection infrastructure under the IB-use scheme, an existing gateway and personal authentication function are used, and thus it involves fewer revamping tasks for the system than the direct connection scheme, resulting in a shorter work period and lower initial costs. On the other hand, since it uses the IB system, if the running cost of the IB system is determined under a charge system in which fees are charged on a pay-for-access basis or according to the upper limit of accesses per month, the

bank will be required to pay the system vendor higher amount according to an increase in the number of user accesses with the API connection.

With the IB-use scheme, only users of the IB service of the bank may use services with API connection.[28] Moreover, the information available to an electronic payment service provider with the API connection is limited to the information used in the IB service, so that when it becomes necessary to acquire other information, it will require revamping of the IB system in addition to the API connection infrastructure.

C. Summary

Fig. 11-1 and 11-2 summarize characteristics of both connection schemes. The questionnaires found that the banks that have developed, or decided to develop, the API connection infrastructure selected the IB-use scheme for more than 80% of the corporate accounts and more than 60% of the individual accounts (Fig. 12).

As shown in Fig. 11-2, the amounts of initial costs and running costs for the API connection infrastructure vary from bank to bank. The reason for this is that the initial costs and running costs of the API connection infrastructure generally differ depending on its functions and system performance, such as the maximum number of accesses per second. For example, in the same classification as regional banks, there are differences between large regional banks and small and medium-sized regional banks in terms of the number of depositors, the size of assets deposited, etc., and thus it is likely that there is also a significant gap in the costs for the API connection infrastructure. Moreover, if fees are charged under a pay-for-use system, the initial costs and monthly fixed costs tend to be relatively low.

[28] The interview surveys of banks found that the subscription rate of IB services is approximately between 10% and 40%.

Fig. 11-1: Comparison of connection schemes

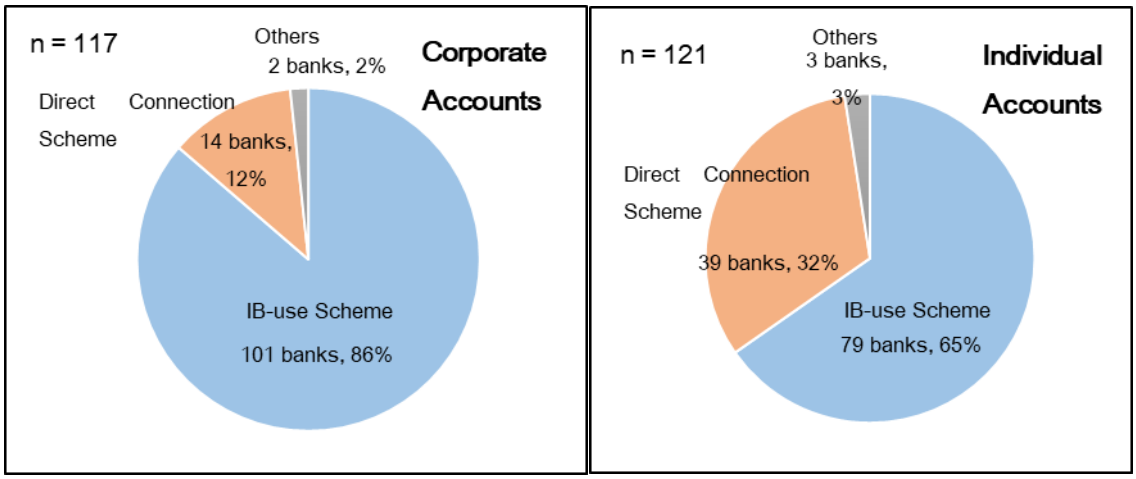
	Work Period	Initial costs (Fig. 11-2)	Persons who can use services with API Connection	Functional Scalability
Direct Connection Scheme	Long	Expensive	All depositors	High
IB-use Scheme	Short	Cheap	Only users of IB service	Low

Fig. 11-2: Expenses for API connection infrastructure in regional banks

	Initial costs	Running Costs	
		Monthly fixed cost	Pay-for-use cost (per access; including costs for IB System)
Regional Banks (Direct Connection Scheme)	several million yen – several 100 million yen	several 100,000 yen - several million yen	-
	Approximately 10 million yen	several 100,000 yen	several yen
Regional Banks (IB-use Scheme)	several million yen - tens of millions of yen	tens of thousands of yen - several 100,000 yen	-
	several 100,000 yen - several million yen	0 yen - several 100,000 yen	0 yen – dozens of yen
[Reference] Other Banks (IB-use Scheme)	tens of millions of yen - several 100 million yen	several 100,000 yen - tens of millions of yen	-

Source: Created by the Japan Fair Trade Commission based on questionnaires to and interview surveys of banks

Fig. 12: Schemes for development of API connection infrastructure adopted by banks (left: corporate accounts; right: individual accounts)



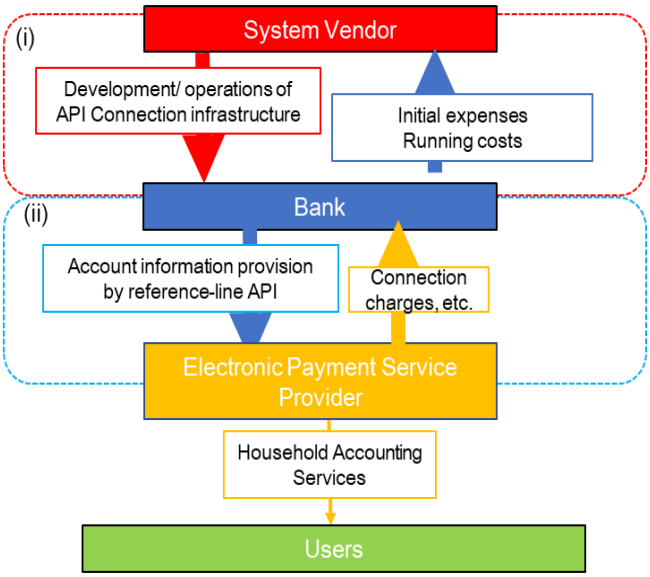
Source: Results of questionnaires to banks

4. Outline of Transactions for Providing Household Accounting Services

As described in the foregoing section 2, web scraping and the API connection are the methods by which an electronic payment service provider acquires account information from a bank to provide household accounting services. In this respect, the API connection should be used in light of the guarantee of security and other purports of the Act Amending Banking Act. The interview surveys of banks also found that banks recognized web scraping as merely a provisional alternative measure used when they could not develop the API connection infrastructure by the time it is needed.

To make the API connection, a bank needs to develop the API connection infrastructure as described in the preceding section 3. Accordingly, as to transactions for providing household accounting services, there are two transactions to be taken into consideration: (i) a transaction between a bank and a system vendor concerning the development and operation of the API connection infrastructure; and (ii) a transaction between a bank and an electronic payment service provider concerning acquisition of account information (Fig. 13).

Fig. 13: Transaction structure for Household Accounting Services



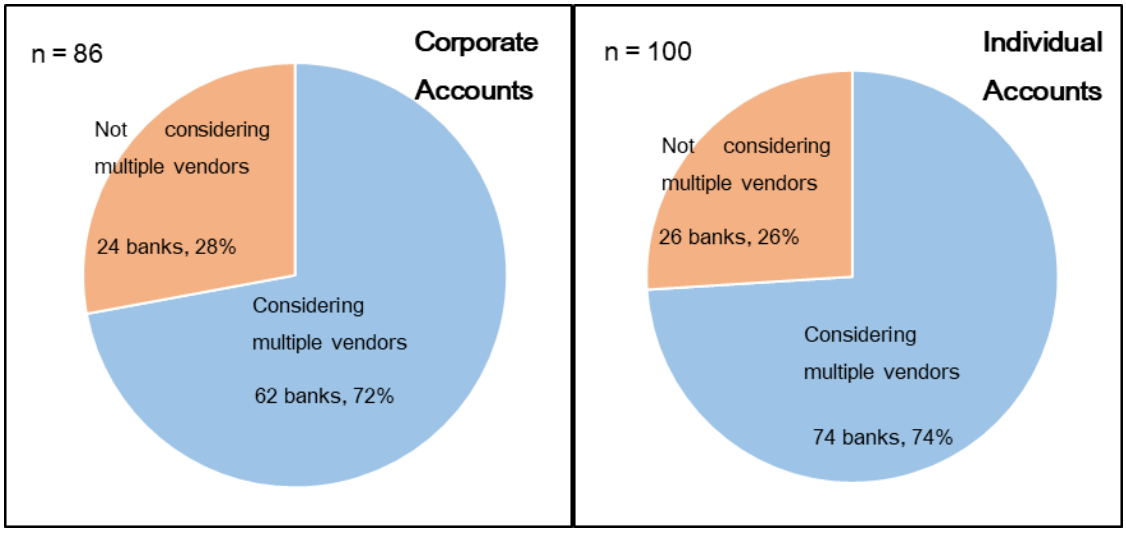
Source: Created by the Japan Fair Trade Commission based on interview surveys of businesses, etc.

(1) Transaction between a bank and a system vendor

A. Selection of a system vendor by a bank

Regardless of the direct connection scheme or the IB-use scheme, the API connection infrastructure technically can be developed also by a different system vendor (hereinafter an "outside vendor") than the one who has developed the core banking system or IB System to which the API connection infrastructure is to be connected (hereinafter an "existing vendor"). Accordingly, a bank can freely select a system vendor, including outside vendors, to whom the development of the API connection infrastructure is entrusted. The questionnaires to banks found that when developing the API connection infrastructure, whether for corporate accounts or individual accounts, approximately 70% of the banks in fact considered more than one system vendor, including outside vendors to entrust system development (Fig. 14).

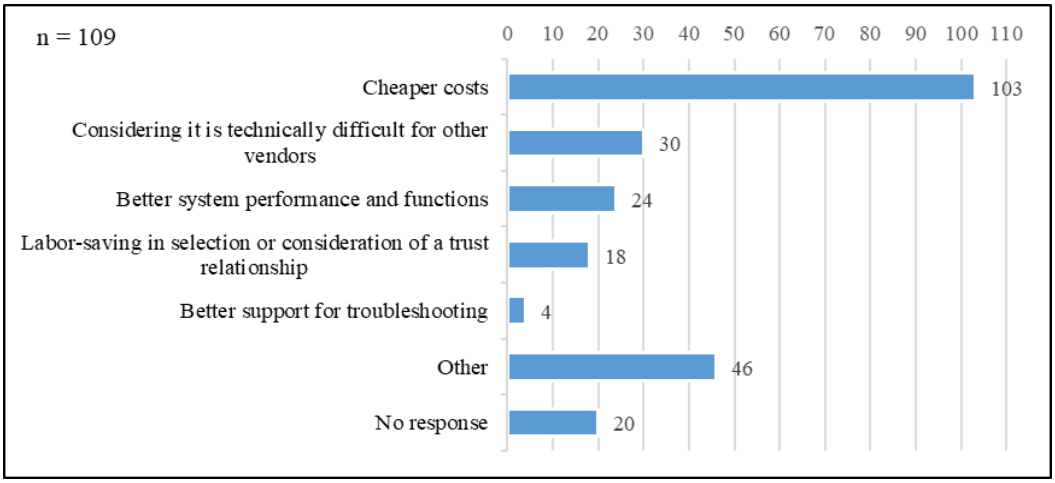
Fig. 14: Condition of banks' consideration of system vendors for development of API connection infrastructure (left: corporate accounts; right: individual accounts)



Source: Results of questionnaires to banks

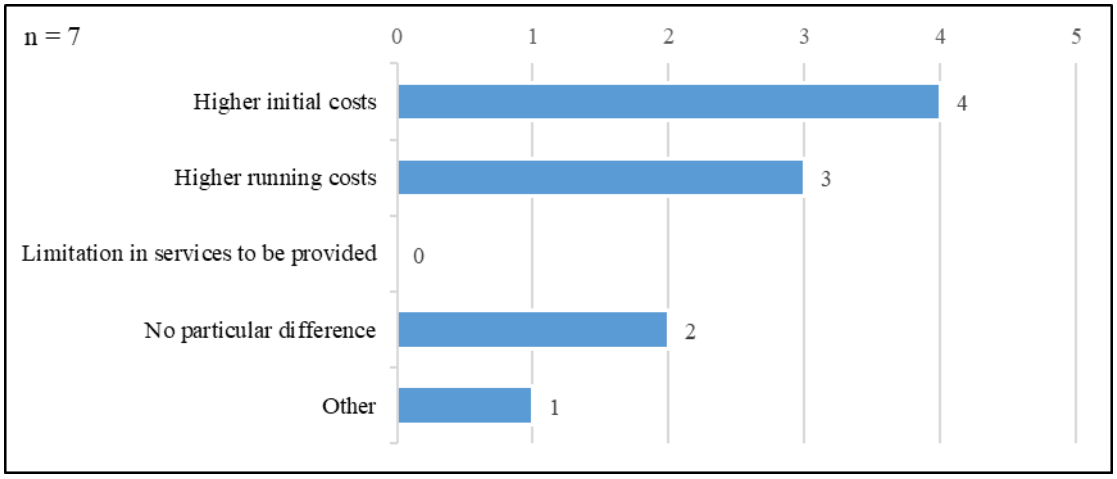
However, only a few banks actually entrusted the development of the API connection infrastructure to outside vendors (eight banks for corporate accounts and 17 banks for individual accounts), and many banks selected existing vendors mainly due to lower charges (Fig. 15). In the questionnaires to system vendors, many responded that initial costs and running costs were lower when it was entrusted to an existing vendor (Fig. 16).

Fig. 15: Reasons why banks selected existing vendors for development of API connection infrastructure (multiple answers)



Source: Results of questionnaires to banks

Fig. 16: Differences for system vendors when they develop API connection infrastructure connected to a core banking system developed by another company not to their own core banking system (multiple answers)



Source: Results of questionnaires to system vendors

The period of a contract between a bank and a system vendor concerning the development and operation of the API connection infrastructure is several years at maximum, and thus it is unlikely that the length of a contract period impedes changing the system vendor after the API connection infrastructure has developed.

In addition to the differences in costs required for development, if the development of the API connection infrastructure is entrusted to an outside vendor (whether the direct connection scheme or the IB-use scheme), a system of the outside vendor should be connected to the core banking system or IB System developed by the existing vendor, so that the outside vendor needs to understand the specifications of the system developed by the existing vendor. Therefore, the outside vendor must ask the bank to instruct the existing vendor to disclose the specifications.

B. Time pressure for development of API connection infrastructure

As described in the foregoing section 2 (2), a bank is required to strive to develop a system by which electronic payment service providers may acquire the bank's account information without web scraping. Moreover, an existing business that has engaged in electronic payment services is required, in order to continue the services, to conclude contracts with banks by the end of May 2020.

Accordingly, if it does not wish connection with web scraping, a bank needs to develop the API connection infrastructure by the end of May 2020.

(2) Transaction between a bank and an electronic payment service provider

A. Connection with banks from the viewpoint of electronic payment service providers

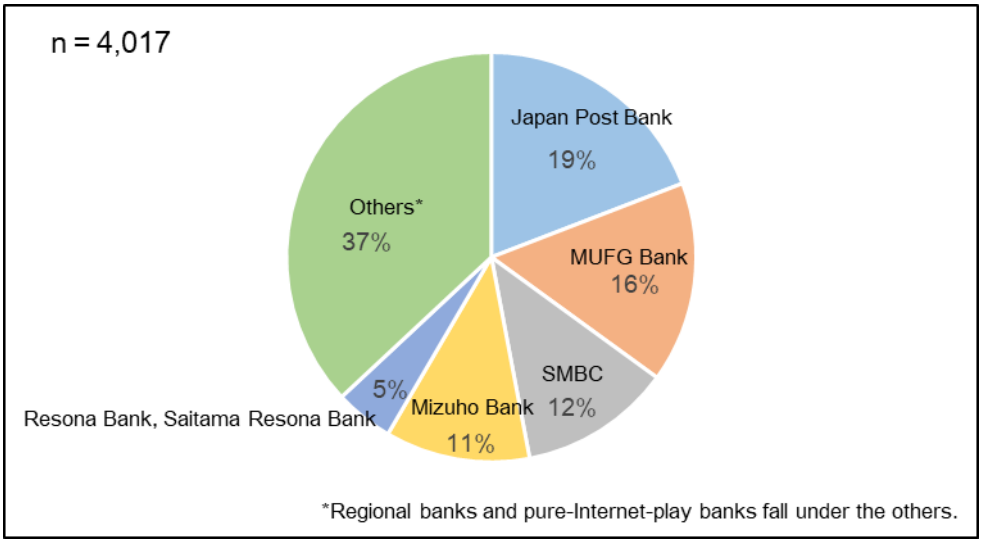
As understood also from the definition in the Banking Act stating that electronic payment services are services where a service provider acquires, upon a depositor's entrustment with an account in a bank, information on the account from the bank and provides it to the depositor, it is indispensable for an electronic payment service provider to access the bank in engaging in the services.

If an electronic payment service provider fails to reach an agreement on contractual terms with a bank, and thus it cannot access the bank, the provider would not be able to acquire account information from that bank, so that it is possible that users of the bank could not use household accounting services on which their account information is not reflected. In particular, a user who registers only one bank account with household accounting services (as shown in Fig. 1 in the foregoing section 1(1)) is very likely to discontinue using the household accounting services if the account information of his/her bank is not reflected in them. Accordingly, for the continuation of services, it must be important for an electronic payment service provider to access a bank having a large share among users of household accounting services.

In fact, in the interview surveys of electronic payment service providers, it was pointed out that if it is no longer able to access a bank, many of its users would not continue using their household accounting service by bothering to open an account in another bank to which the household accounting service could be connected, but they would rather switch to another household accounting service that could access their bank, and thus that electronic payment service provider would lose users of that bank.

The questionnaires to consumers found that proportions of the banks registered by users in their household accounting services were as shown in Fig. 17. There was more than one bank that exceeded 10%, and the bank with the largest portion represented approximately 20%.

Fig. 17: Banks registered by users in their household accounting services (multiple answers)



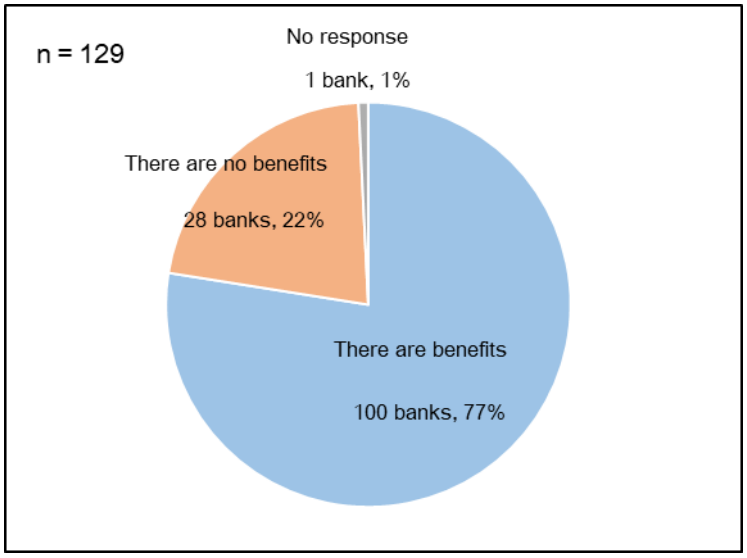
Source: Results of questionnaires to consumers

B. Connection with electronic payment service providers from the viewpoint of banks

In the questionnaires to banks, many banks responded that there were benefits in connecting with electronic payment service providers (Fig. 18-1). In the questionnaires and interview surveys of banks, banks mentioned, as specific benefits, improvement in the convenience for their users through creation of new services in cooperation with electronic payment service providers, as well as an increase, incidental to this, of new users of their own banks. As premises for users' consent to the use of their information, it was expected that a bank could use, for its marketing, other banks' account information related to its own users that electronic payment service providers collected through household accounting services, so that it would become possible to propose timely services meeting precisely the users' needs regarding loans, or that a bank could grasp as data the real-time asset situation of individuals and corporations so that loan screening would be streamlined (Fig. 18-2).

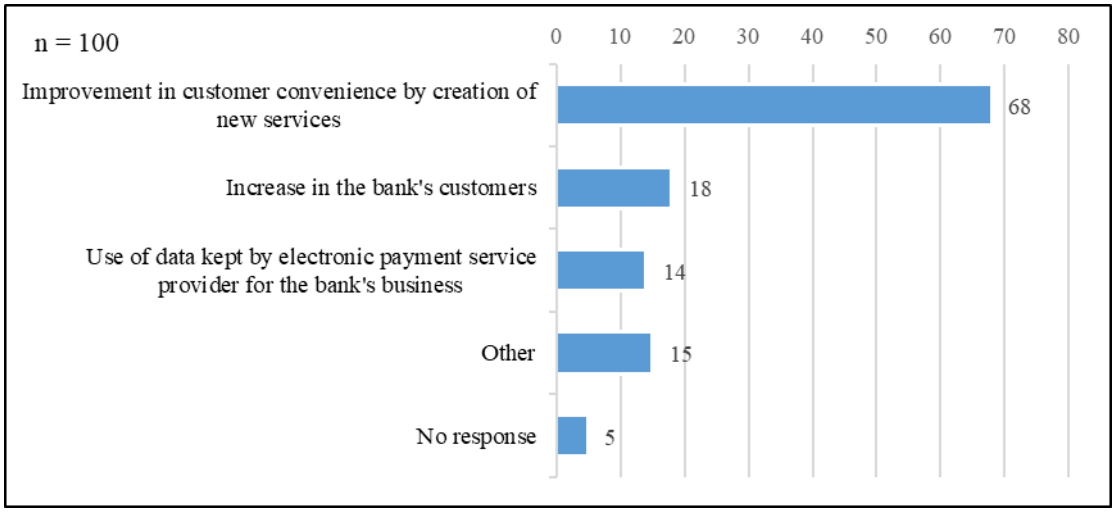
On the other hand, there were opinions that while they did not deny future possibilities, they could not find any benefit at present.

Fig. 18-1: Whether there are benefits for banks in connecting with electronic payment service providers



Source: Results of questionnaires to banks

Fig. 18-2: Specific contents of benefits (based on free-form responses)



Source: Results of questionnaires to banks

C. Contract negotiations between a bank and an electronic payment service provider

As described in the foregoing section 2 (3) B, an electronic payment service provider needs to conclude a contract with each bank to acquire account information kept by the bank. While the Banking Act provides that the contract should stipulate the sharing of liability in the event of any damage, measures

for proper handling of information, and other matters, the bank and the electronic payment service provider must agree, in addition to their particulars, other relevant matters through negotiations.

When entering into a contract, a bank also checks the information security system of the electronic payment service provider from a viewpoint of securing the stability of bank systems and user protection. The electronic payment service provider has had its security system checked by the authorities at the time of registration. However, in the interview surveys, the banks responded that they believed that even in the case of information leakage due to negligence on the part of an electronic payment service provider, a bank may be held accountable because it has approved the connection with the electronic payment service provider, and thus it needs to check the information security system of electronic payment service providers.

There are also the following efforts to reduce the burden of contract negotiations of both sides:

(A) Preparation of model clauses

If contractual matters and their wording differ by individual contract, both a bank and an electronic payment service provider incur a considerable clerical cost to scrutinize its contents etc. For that reason, to streamline the clerical work for the conclusion of a contract, the Japanese Bankers Association has compiled and published the *Model Clauses of API Usage Contract under the Banking Act* (hereinafter the "Model Clauses") for reference for contract negotiations. While this does not preclude the parties from agreeing on different contents than the Model Clauses, contract negotiations are advanced based on the Model Clauses.

Usage fees for the API connection (hereinafter "connection charges") are not provided in the Model Clauses but agreed through negotiations between each bank and electronic payment service provider.

(B) Preparation of checklist

If each bank provides different examination standards and items for confirmation regarding information security, the examination cost for both sides would increase, so that the Center for Financial Industry Information Systems (FISC) has compiled and published the *API Connection Checklist*. Examination, in practice also, is carried out roughly based on the checklist.

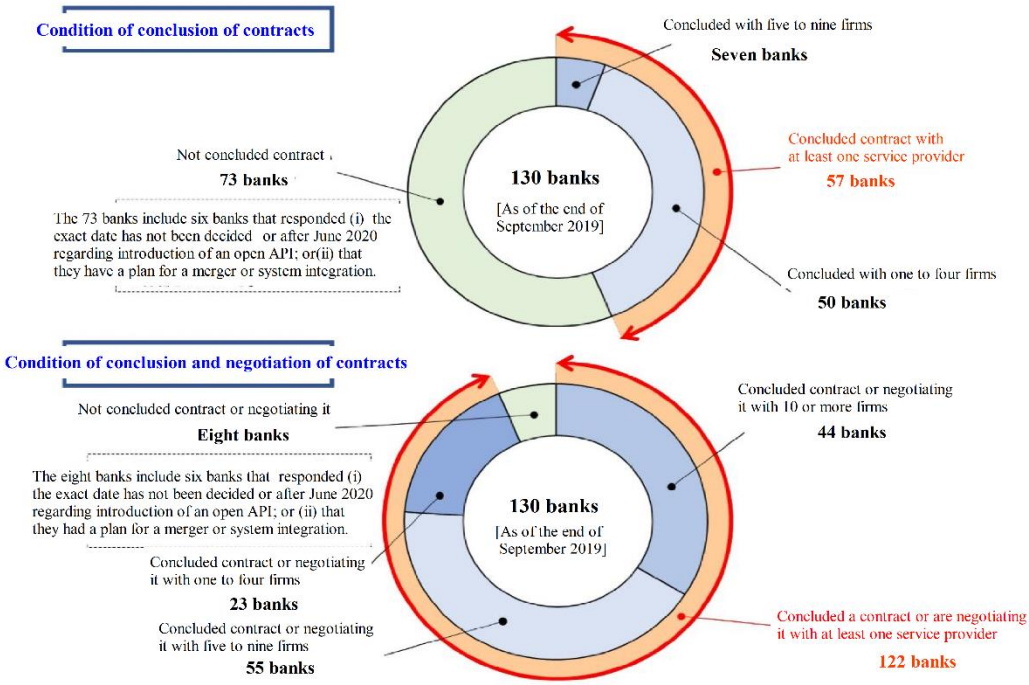
There are also businesses that provide a service to examine the information security systems of electronic payment service providers on behalf of banks to provide results of the examination to multiple banks to reduce the burden on both sides.

Chapter 3 Situation of Transactions in Field of Household Accounting Services

1. Situation of Contract Negotiations

At the beginning of this survey, while contract negotiations were carried out between banks and electronic payment service providers toward the API connection, according to the *About the Situation of the Conclusion of Contracts between Banks and Electronic Payment Service Providers* (November 15, 2019), the survey of the Financial Services Agency, however, as of the end of September 2019, nearly 60% of the banks have not yet concluded contracts, and most of the banks that have concluded contracts did so with no more than four electronic payment service providers (Fig. 19).

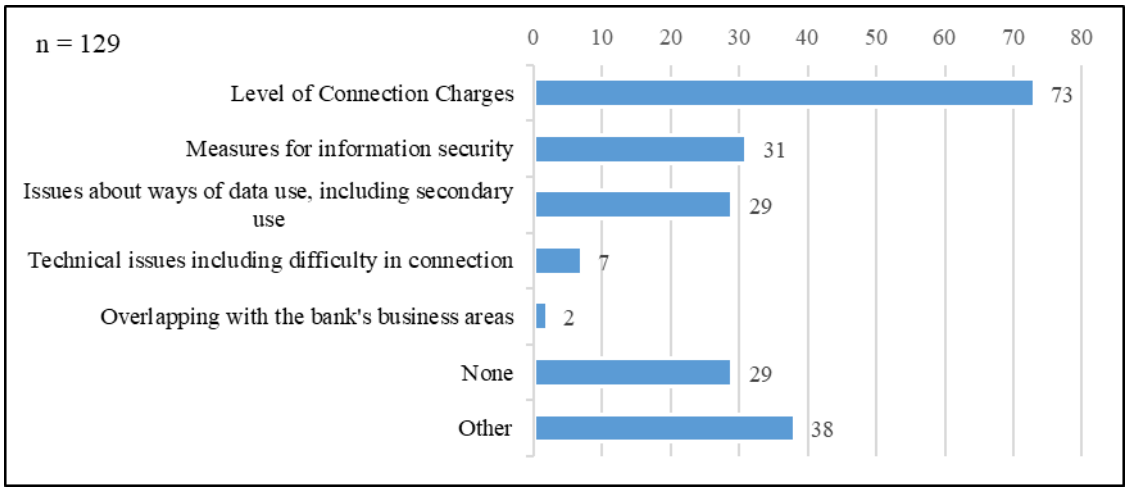
Fig. 19: The Situation of the Conclusion of Contracts between Banks and Electronic Payment Service Providers (November 15, 2019)



Source: Created by the Japan Fair Trade Commission based on FSA's website

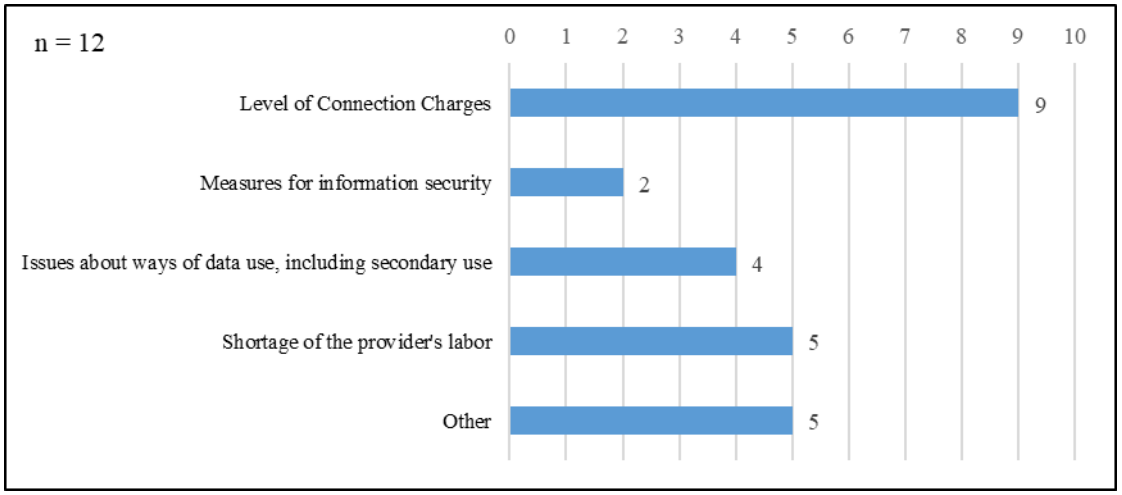
In the questionnaires to banks and the questionnaires to electronic payment service providers, both of them pointed out, as main concerns in negotiating for contracts, (i) the level of connection charges, (ii) arrangements for secondary use of data acquired, and (iii) measures for information security at electronic payment service providers (Fig. 20 and Fig. 21).

Fig. 20: Concerns banks have in negotiating with electronic payment service providers (multiple answers)



Source: Results of questionnaires to banks

Fig. 21: Concerns electronic payment service providers have in negotiating with banks (based on free-form responses)



Source: Results of questionnaires to electronic payment service providers

(1) Level of Connection Charges

A. Banks' point of view

As shown in Fig. 11-2 in Chapter 2, section 3(3) C above, banks pay initial costs and running costs to system vendors to conduct the development and operation of the API connection infrastructure. Accordingly, based on those costs a bank should bear, the bank decides on the level of connection charges

claimed from an electronic payment service provider while also taking into account the benefits of the API connection for the bank.

(A) The level of connection charges claimed from electronic payment service providers

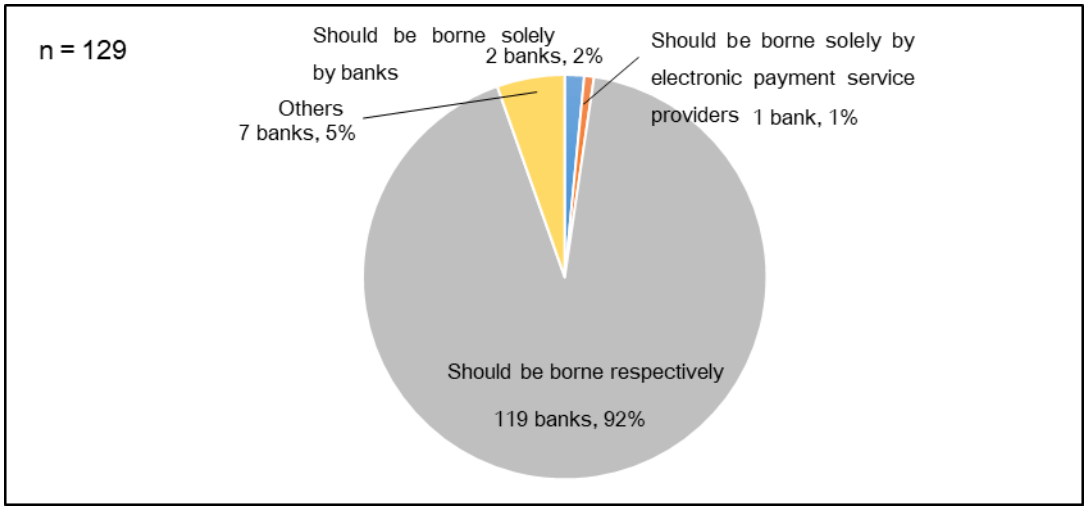
The questionnaires to banks found that almost all banks deemed that costs for the development and operation of the API connection infrastructure should not be borne solely by either party but shared by both parties in light of the fact that the API connection would contribute to the improvement in convenience for customers of their own banks; the purports of the Act Amending Banking Act, including the promotion of open innovation; and the fact that there were benefits both for banks and electronic payment service providers (Fig. 22-1).

The interview surveys of banks and electronic payment service providers found that, regarding desirable connection charges at the beginning of negotiations, there were some cases where a bank presents several million yen of initial expenses, well over a hundred thousand yen for monthly expenses and several yen per access as a pay-for-use charge or where a bank claims about ten yen per access as a pay-for-use charge while initial expenses and monthly expenses are low. On the other hand, the interview surveys of banks showed that there were not any banks that expected to profit from income of connection charges on electronic payment service providers.

The specific share of the costs is often decided for each electronic payment service provider by taking into consideration individual circumstances including the benefits for the bank described in Chapter 2, section 4 (2) B above. For example, there are also banks that do not charge connection charges as part of mutual cooperation, where a bank holds seminars jointly for small and medium-sized enterprise in the region with an electronic payment service provider, or a bank entrusts an electronic payment service provider with the development of apps for the IB services of the bank. There are also cases where a bank reduced the amount of connection charges in exchange for a measure where advertising for the bank was placed in the application of household accounting services, or household accounting services were provided free of charge to specific users of the bank for a given period of time.[29]

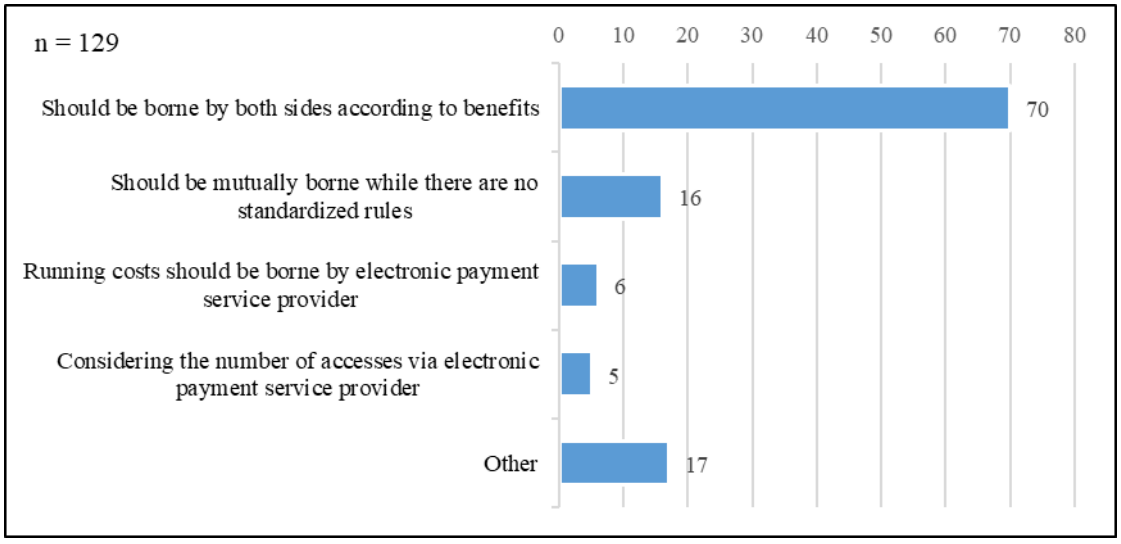
[29] It helps a bank to increase opening of new accounts and an electronic payment service provider to increase the number of users.

Fig. 22-1: Banks' point of view regarding burden of costs for development and operation of API connection infrastructure



Source: Results of questionnaires to banks

Fig. 22-2: Banks' point of view regarding burden of costs (graph created based on free-form responses)



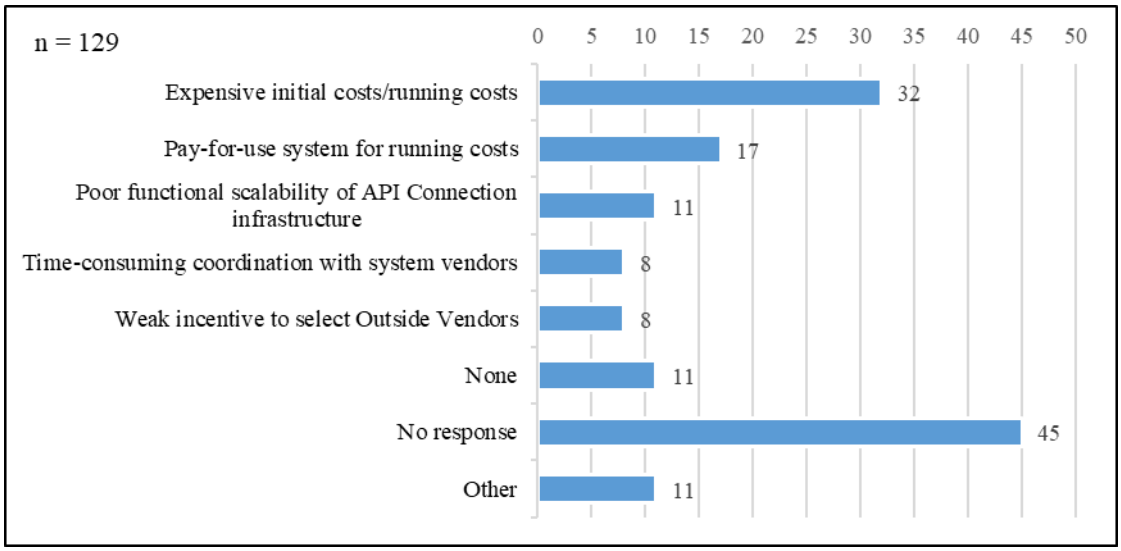
Source: Results of questionnaires to banks

(B) Situation of transactions between banks and system vendors

As shown in Fig. 11-2 above, a bank incurs some costs for the development and operation of the API connection infrastructure. However, the questionnaires to banks showed that many banks did not have any concerns about negotiations with system vendors for the development and operation of

the API connection infrastructure, including costs, as “none” or “no response” represented a large proportion of the response. However, some banks responded that they had a concerns about the level of costs to pay to system vendors (Fig. 23).

Fig. 23: Issues about negotiations with system vendors regarding API connection infrastructure (graph created based on free-form responses)



Source: Results of questionnaires to banks

In the interview surveys of banks, some banks said that they might reconsider which system vendor to entrust by including outside vendors, or, depending on future changes in the circumstances, it was necessary to negotiate a reduction in the amount of running costs.

[Examples of interview surveys of banks]

○ If we become aware in the future that the burden is heavy under a pay-for-use system, we may not hesitate to switch a system vendor to entrust the API connection infrastructure.

○ If there is a better option for the API connection infrastructure in terms of charges or convenience, it is quite possible to switch a system vendor.

○ Under a pay-for-use system, the more a bank is accessed through the API connection, the heavier its burden of costs become, so that we are negotiating with an existing vendor, recognizing needs for review of the fee system.

○ As we expect a future increase in the number of partners and accesses, we need to

reconsider and renegotiate costs.

In this respect, when entrusting development of the API connection infrastructure and build-out of a gateway to an outside vendor, as stated in Chapter 2, section 4 (1) A above, the outside vendor needs to understand the specifications of the existing system to connect to the system of another system vendor. When entrusting build-out of a gateway to an existing vendor and development of the API connection infrastructure to an outside vendor, it is indispensable to get cooperation of the existing vendor to have the gateway compatible with the API connection infrastructure developed by the outside vendor. If it cannot get the cooperation of the existing vendor for disclosure of specifications and in the build-out of a gateway, it becomes difficult for the bank to switch to the outside vendor.

In the questionnaires to system vendors, there were responses to the effect that they cannot receive orders for new cases because they cannot get cooperation from an existing vendor. The interview surveys of system vendors also found that there was a case where a system vendor heard, from a bank that considered entrusting the vendor with the development and operation of the API connection infrastructure, that the existing vendor of the bank had suggested to the bank that if the bank had the API connection infrastructure developed by an outside vendor, the existing vendor would discontinue providing its IB system.

[Examples of interview surveys of system vendors]

○ When we attempted to introduce our API connection infrastructure to a bank with the core banking system developed by another system vendor, the system vendor responded through the bank that it could not disclose specifications for business reasons.

○ There are core banking systems whose specifications are not disclosed, or connecting to which would require extensive development, alteration, and revamping, which consequently suggest that their system vendors attempt to keep out the API connection infrastructure of another system vendor that has not provided the core banking systems.

○ There are cases where an existing vendor is not cooperative in disclosing specifications to connect the API connection infrastructure to the core banking system.

○ When a bank attempted to adopt our API connection infrastructure, we heard from the bank that the existing vendor had said if the bank used the API connection infrastructure of another firm, the vendor would discontinue providing the IB system it was providing.

The interview surveys of banks found that there were cases where a bank gives up entrustment to an outside vendor because of expensive costs for the existing vendor to build a gateway or the time pressure described in Chapter 2, section 4 (1) B above.

[Examples of interview surveys of banks]

○ While we considered system vendors, including outside vendors, on the grounds of the cost structure of running costs and issues with expandability of the IB-use scheme, we selected the existing vendor in the end because of the expensive costs of the build-out of a gateway and the pressing time limit for contracts with electronic payment service providers because we thought that we could not develop a system in time if we further considered outside vendors.

○ While we requested an estimate for costs of the build-out of a gateway from the existing vendor to adopt an outside vendor, we gave up entrustment to the outside vendor because it would take time, and the estimated cost was expensive.

○ We entrusted a system to the existing vendor because we did not have time to consider outside vendors due to the time limit of the end of May 2020. Without the time pressure, we could have considered options from outside vendors.

○ We were told by the existing vendor that if we used the API connection infrastructure of an outside vendor, it would cost hundreds of millions of yen to build a gateway. We were also told that a gateway would not be built by May 2020, and thus we selected the existing vendor because of the amount of costs and work period.

In the interview surveys of banks, there were also opinions regarding negotiations with system vendors over fees that due to the lack of system personnel with sufficient knowledge of their own system, they could not sufficiently examine estimates and had difficulty in negotiating with system vendors on an equal footing.

[Examples of interview surveys of banks]

○ We want to negotiate a price reduction, but we are not aware what kind of and how

much costs are spent. So, it is difficult for us to negotiate advantageously.

○ When we have entrusted systems to the same vendor for years, we tend to leave everything about systems to it. As such, there have been gradually fewer personnel with knowledge of systems, and we cannot confirm something about systems internally if we want to know it.

○ As we do not have personnel who are knowledgeable with the systems, while we understand, only vaguely, whether an estimate is reasonable or not, it is impossible to deeply examine the period or the number of personnel required for works.

In the questionnaires to and interview surveys of banks, some banks stated that as described in Chapter 2, section 2 (2) above, the Banking Act does not provide the scope of information provided through the API connection, so that they had developed the API connection infrastructure by limiting it to the minimum functions necessary as a tentative measure based on the Act Amending Banking Act to save on costs for the development and operation of the API connection infrastructure. With such banks, the information that may be acquired by an electronic payment service provider through the API connection is limited to that on the balances of ordinary savings accounts, and withdrawal and depositing of money. Among such banks, there were opinions that they concern that when they expand the functions of the API connection infrastructure in the future, they may incur additional costs.

[Examples of interview surveys of banks]

○ Our bank has developed the API connection infrastructure with the minimum functions necessary with which only the balances of ordinary savings accounts can be checked, in light of the stipulations of the Banking Act and needs of electronic payment service providers. While, currently, information on the foreign currency deposits or other can be also checked by web scraping, such information will no longer be available with the API connection.

○ There is a concern that additional costs will be required when adding information to be checked through the reference-line API other than the information on balances or account activities, such as the withdrawal and depositing of money.

○ There is a concern that, revamp of the core banking system or IB system will be required whenever additional kinds of information, other than information which are provided at the time of the initial build-out of the API connection infrastructure, needs to be provided.

B. Electronic payment service providers' point of view

In the interview surveys of electronic payment service providers, there were many opinions that, basically, since a bank incurs costs for the API connection infrastructure, an electronic payment service provider also must bear some costs. Regarding the level of connection charges, there were many opinions that a household accounting service, for example, is basically provided free of charge and the amount of monthly sale per user is less than 50 yen at maximum, or electronic payment service providers need to access many banks, so that the providers desire that burden of costs, at maximum, be within 1,000,000 yen for initial expenses and about within 100,000 yen for monthly fixed costs. There were also opinions that it is hard for the electronic service payment providers to accept a pay-for-use charge system where costs would increase without limitation. Even if so, in light of a business model of household accounting services in which account information is acquired frequently,[30] it is difficult to stay in business unless connection charges are less than one yen per access.

C. Compromises in contract negotiations

Through negotiations between banks and electronic payment service providers, both sides have been increasingly aware of the cost structure of the others, and views of reasonable connection charges have been gradually made among them. Coupled with that, there have been compromises to conclude a contract, including cases where a bank recognizes benefits for the bank in cooperative work with electronic payment service providers, and thus presents a lower level of connection charges than ever or where an electronic payment service provider limits, in its systems, the number of API accesses during a given period to reduce running costs for banks.

On the other hand, as it is the highest priority for them to connect from June 2020 onward, when there is a substantial gap in connection charge desired by both sides, they, in some case, conclude a provisional contract and, after June, they will renegotiate other terms including connection charges.

[Examples of interview surveys of electronic payment service providers and banks]

○ We understand that competent authorities requested banks to be flexible in

[30] The questionnaires to electronic payment service providers found that currently, one account is accessed 20 or 30 times a month.

determining connection charges, and some banks have significantly reduced connection charges. There are some banks that askes us whether we have beneficial information for the banks instead of connection charges.

○ As banks have negotiated with multiple electronic payment service providers, they have accumulated knowledge about a level of connection charges acceptable to electronic payment service providers, and they now present estimates the level of which seem to be acceptable for both sides.

○ There are compromises regarding the level of connection charges. For example, a bank has given us a price reduction for connection charges in exchange on a condition that our household accounting services place advertising for the bank, or on a condition that we reduce the number of accesses from us.

○ We have made connection charges free on a condition that we implemented a measure for us to limit the frequency of updating account information in our household accounting services.

(2) Secondary use of account information

Some electronic payment service providers provide services where they create data from account information acquired from banks and provide them to the banks and other enterprises, complying with the personal information protection legislation as the premise for business, including in terms of the acquisition of depositors' consent. In particular, an electronic payment service provider may prepare accounting books of an enterprise based on the bank's information on withdrawal and depositing of money to provide them to the bank, for example, to be used for loan screening.

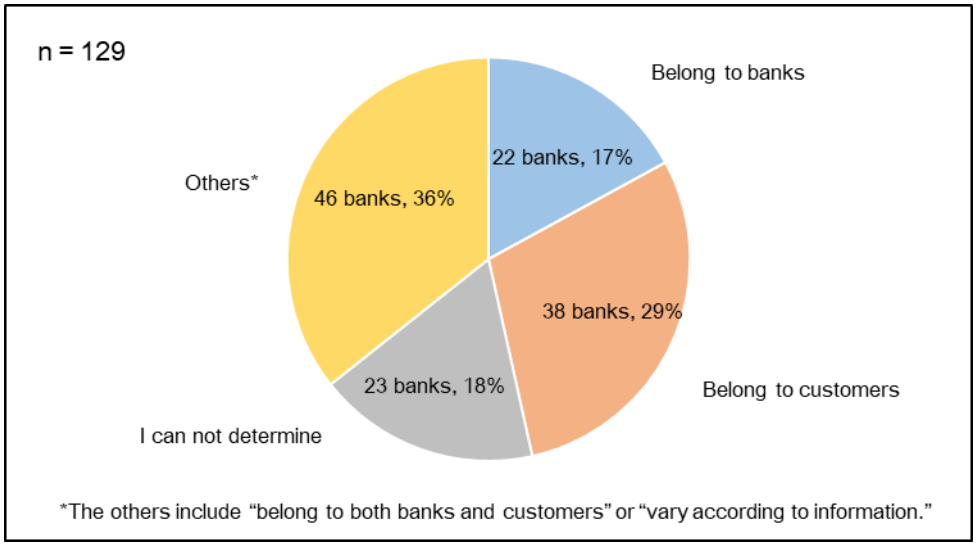
A. Banks' point of view

Under the Banking Act, an electronic payment service provider is required to agree with a bank in a contract on the measures to be implemented for proper handling and security management of the information from users acquired by the electronic payment service provider, and, according to the view of the Financial Services Agency, the information from users includes processed information.[31] In the questionnaires to banks, while some banks responded that account information belongs to customers, some banks recognize that the

[31] About Results of Public Comments on the Cabinet Order for Partial Amendment of the Enforcement Order of the Banking Act (draft) (*) (Outline of Comments and the Financial Services Agency's Views on the Comments, No. 171) (https://www.fsa.go.jp/news/30/ginkou/20180530/01.pdf)
*Cabinet Order Accompanying the Enforcement of the Act Amending Banking Act

account information belongs to the banks (Fig. 24), and some banks believe it should be managed by banks, including against risks of information leakage by parties engaging in secondary use.

Fig. 24: What banks think about attribution of bank account information kept by them



Source: Results of questionnaires to banks

Under those views, multiple banks adopt a cautious attitude toward the secondary use of account information in negotiating contracts with electronic payment service providers. The interview surveys of banks and electronic payment service providers found that there were cases where, for the secondary use of account information, some banks required electronic payment service providers to obtain the banks' advance consent to the recipient of the information and its contents.

B. Electronic payment service providers' point of view

On the other hand, in the interview surveys of electronic payment service providers, there were opinions that it was difficult, in practice, to obtain the consent of the respective banks every time they provided data to a third party, or that since account information belonged to users, they would not need to obtain banks' consent to the transfer of information if they obtained users' consent and otherwise complied with the personal information protection legislation.

Some electronic payment service providers suspect that the reason banks imposed stringent conditions on secondary use of information was that they wanted to avoid the transfer of information to other banks.

In the interview surveys of electronic payment service providers, there were opinions that the rights to information on savings accounts (to whom rights to information on savings accounts belong) was not clear in Japan,[32] so that there was often a perception gap between banks and electronic payment service providers (users) regarding how to use the information.

In this regard, with respect to the attribution of information on savings accounts, in the questionnaires to banks, nearly 30% of the banks responded that the information on bank account information belongs to customers, and nearly 20% of the banks responded that the bank account information belongs to the bank as shown in Fig. 24 above. On the other hand, the questionnaires to consumers found, as shown in Fig. 4 in Chapter 2, section 1 (1) above, that more than 60% of the users believed that household accounting services should be free of charge because they just enable them to check their own account information.

C. Compromises in contract negotiations

There have been compromises to conclude a contract since banks and electronic payment service providers have developed a common understanding about the handling of account information through negotiations between them, and there are opinions among electronic payment service providers that there is a tendency that banks do not impose limits in secondary use of information by clearly agreeing with electronic payment service providers on the scope of liability to be borne in the event of leakage of account information or other accidents at parties engaging in secondary use.

[Examples of interview surveys of electronic payment service providers]

○ There is not any bank with whom secondary use of information becomes an issue. We believe that account information belongs to the customers of the bank, and the consent of the information subject suffices for providing personal information to third parties under the Personal Information Protection Act, and to the extent this condition is cleared, it should not be limited by the bank. In this regard, while there

[32] In the EU, the 2016 General Data Protection Regulation (GDPR) clearly stipulates the general rights to personal information, including rights to transfer personal information containing account information to third parties.

have been banks with different views, we explained our understanding and were understood by them.

○ While banks appear to still believe, as of the year 2020, that we must obtain the consent of banks in addition to that of customers; however, with the impending due date for conclusion of contracts, they agree that we do not have to obtain their consent by agreeing that we bear responsibilities for information leakage and other accidents at parties engaging in secondary use.

○ Formerly, there are banks that do not even negotiate with us if we make secondary use of information, but that is not the case anymore.

○ Formerly, there are banks that do not accept any form of secondary use of data, but that is not the case anymore, and we have concluded contracts providing that we do not have to obtain advance consent of the bank, provided that in the event of any information leakage or any other issues at parties engaging in secondary use, we will bear the responsibility.

(3) Security systems in electronic payment service providers

In the interview surveys of banks, there were opinions that while each bank examines the information security system of an electronic payment service provider regarding such point as their security management supervisors or entrance control over offices according to standards prepared based on the *API Connection Checklist* set forth in Chapter 2, section 4 (2) C (B) above. However, some electronic payment service providers do not have the necessary systems in place in light of the bank's standards. It was also pointed out that they incur substantial clerical costs for supporting development of information security systems of electronic payment service providers or confirming the development condition, which is one of the reasons that contract negotiations take time.

While some electronic payment service providers pointed out that banks also check matters not contained in the *API Connection Checklist*, which results in the increase of clerical costs, there was not an opinion, however, that the contents of the checklist are excessively rigorous.

There are also increasingly cases where the security system of an electronic payment service provider is examined efficiently with practical ideas such as those described in Chapter 2, section 4 (2) C (B) above.

2. Progress of Contract Negotiations

In the questionnaires in November 2019, when contract negotiations faced rough

going, concerns were expressed by both banks and electronic payment service providers regarding contract negotiations. In fact, some electronic payment service providers judged that it was difficult to conclude contracts with all banks by the end of May 2020 due to clerical costs for contract negotiations and the level of connection charges, and they gave up on the services after that.

However, as negotiations have been advanced, concerns have almost been resolved as described in the preceding section 1. The interview surveys of electronic payment service providers during and after January 2020 also found that while they still faced difficulty with some banks, there were opinions that through negotiations, they had gradually reached an agreement on the whole, so that they expected that contracts could be concluded with the necessary banks for continuation of household accounting services by the end of May of the year, the time limit for conclusion.

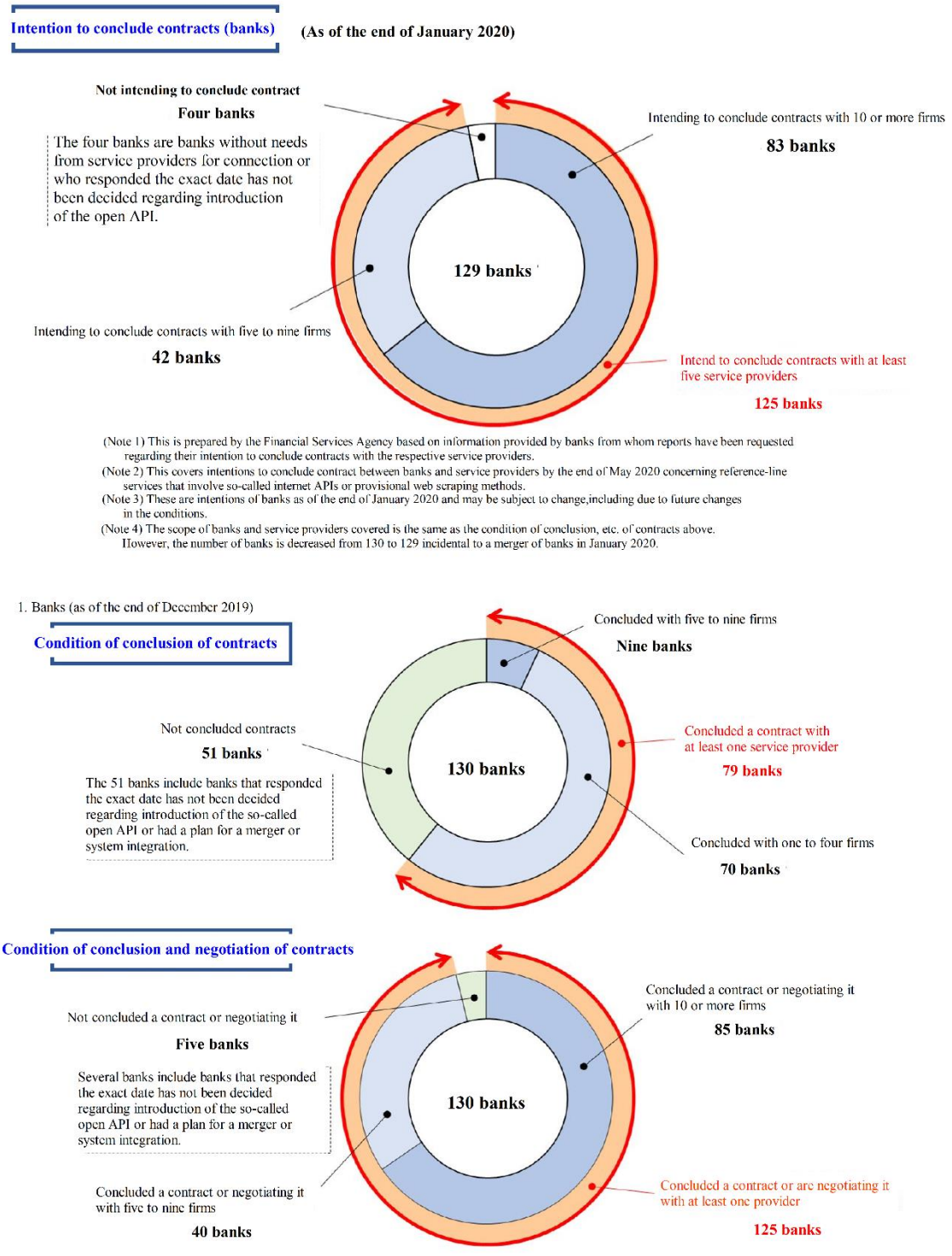
The *About the Situation of the Conclusion of Contracts between Banks and Electronic Payment Service Providers* (February 25, 2020), the survey of the Financial Services Agency, shows that, comparing conditions between the end of September 2019 and the end of December of the same year, cases of the actual conclusion of contracts have gradually increased as shown, for example, by the fact the number of banks that have concluded contracts with at least one electronic payment service provider increased from 57 to 79 (Fig. 25).

In the survey, all banks (except four banks with special circumstances, including cases where there were not needs for connection on the part of electronic payment service providers) responded that as of the end of January 2020, they had the intention to conclude contracts with at least five electronic payment service providers.

[Examples of interview surveys of electronic payment service providers]

○ Except for some banks, our negotiations for contracts are in the final stages, and for the moment, we are advancing to the conclusion of contracts anyway.
○ Many banks give us positive consideration toward conclusion of contracts.
○ Compared to the end of 2019, situations have become considerably favorable. The banks and our institution share the opinion that we should not cause inconvenience to users of household accounting services, and we both want to conclude an API connection contract anyway by the end of May 2020.

Fig. 25: About the Situation of the Conclusion of Contracts between Banks and Electronic Payment Service Providers (February 25, 2020)



Source: Created by the Japan Fair Trade Commission based on FSA's website

3. Possibility for Renegotiations

As described in the preceding sections 1 and 2, both banks and electronic payment service providers are making compromises in contract negotiations targeting the end of May 2020, the time limit provided in the Act Amending Banking Act, and there are in fact increasing cases of the conclusion of contracts.

However, as many of the concluded contracts are to be renewed yearly, the interview surveys of electronic payment service providers found that some providers were suggested by many banks that the current terms were provisional ones premised on the above time limit, and that the contents of the contracts might be reviewed in negotiations for contract renewal. In particular, for banks that pay running costs to an entrusted system vendor under a pay-for-use system, the amount borne by the banks may increase more than initially expected depending on the number of accesses through the API connection infrastructure, and in this case, it is expected that there will be strong incentives for those banks to review connection charges and other contract terms. As described in section 1 (1) C above, there are cases where it is agreed that connection charges and other contract terms will be continuously negotiated after June 2020.

[Examples of interview surveys of electronic payment service providers]

○ We have been told by many banks that they conclude contracts as a temporary measure for the pressing time limit, but they would review the level of connection charges at the next contract renewal.

○ If connection charges are increased after the conclusion of a contract beyond reasonable levels while we are providing services, we may be practically forced to accept it because it would significantly affect the users of household accounting services.

○ We have temporarily concluded with some banks contracts concerning connection with web scraping due to the time limit for conclusion, the end of May 2020, to resume negotiations for the API connection after that.

○ While we have concluded gratuitous web scraping contracts with some banks as a temporary measure, we have decided to renegotiate the API connection after the end of May 2020 when things settle down. Even among banks with whom we have reached an agreement on charges and concluded API connection contracts, there are some banks with which we are to renegotiate in future.

Chapter 4 Viewpoint from Competition Policies and Antimonopoly Act

Generally, while new entry that includes a different line of business with the use of new technology has effects to generate innovation in the market, in the finance sector where services have been provided mainly by banks and other institutions, further improvement of financial services is expected with the use of FinTech. Regarding the field of household accounting services targeted by this survey, there are increasingly more entries by electronic payment service providers whose legal position has been clarified by the Act Amending Banking Act.[33] This improves services or creates new services by the use of information on savings accounts kept by banks, including open innovation in collaboration or cooperation with banks, as well as generating innovation by their effects impacting other fields, which brings the benefits of enhancing the convenience of efficient asset management by consumers and improvement in productivity of small and medium-sized enterprises. In this regard, it is an important role of the market competition policies to promote new entry and develop an environment where fair and free competition can be actively carried on and thereby drive innovation with ingenious ideas of businesses.

From such perspective, since it is indispensable for electronic payment service providers providing household accounting services to connect to banks, the following section 1 organizes the viewpoint from competition policies and the Antimonopoly Act regarding transactions between banks and electronic payment service providers.

Charges and other transaction terms of connection between a bank and an electronic payment service provider are substantially affected by the business strategies of the bank about collaboration and cooperation with electronic payment service providers through the API connection, as well as by transaction terms between the bank and a system vendor to whom the bank entrusts the development and operation of the API connection infrastructure. For that reason, the following section 2 discusses the viewpoint from competition policies and the Antimonopoly Act regarding transactions between banks and system vendors.

1. Transactions between Banks and Electronic Payment Service Providers

(1) Viewpoint from competition policies

From the viewpoint of competition policies, it can be considered to be

[33] The questionnaires to banks show that while there is not any bank that provides household accounting services at present, in the future, a bank may provide household accounting services, either by itself or in collaboration or cooperation with electronic payment service providers.

important to ensure that information on savings accounts kept by banks will be widely used, while giving attention to the security of the information, in order to promote innovation in the field of household accounting services and ensure a variety of options and improve convenience for users. To this end, it is necessary to adequately secure the access to information on savings accounts currently kept by banks (including not only the acquisition of the information but also the processing of acquired information and the provision of information, including processed information, to third parties).

In this regard, as described in Chapter 3, section 2 above, it is expected at present that the access to information on savings accounts in the household accounting services is secured through contracts between banks and electronic payment service providers under the Banking Act.

However, if any issue arises in the future in transactions between both sides, necessary measures for securing the access to information on savings accounts may be considered when needed.

As described in Chapter 3, section 1 (1) A (B) above, there are some banks with whom the scope of information that can be acquired by electronic payment service providers with the API connection is limited. Therefore, it is desirable that banks will expand, on an as-needed basis, the scope of information acquired with the API connection by taking into consideration needs of users and burden of costs.

(2)Viewpoint from the Antimonopoly Act

As described in Chapter 3, section 2 above, while banks and electronic payment service providers have gradually reached an agreement on contracts under the Banking Act, at present, it is expected that banks and electronic payment service providers will continue to negotiate contracts to review them, since the period of contracts is one year.

It is left to the free business decision of a bank to change transaction terms according to changes in the circumstances, such as an increase in the number of accesses through the API connection infrastructure.

However, once an electronic payment service provider has concluded a contract with a bank, if it is no longer able to access the bank, and thus many of the users discontinue using its household accounting service, the more the household accounting service has been used by holders of savings accounts of the bank, the more its business management would face a serious difficulty, so that it is very likely that the provider would be forced to accept any terms presented by the bank

even if they are disadvantageous for the provider.

In such case where a bank holds a superior position to an electronic payment service provider in transactions,[34] if the bank inflicts unreasonable disadvantage in light of normal business practices on the electronic payment service provider as a result of reviews of the contract, the action would be problematic under the Antimonopoly Act (abuse of superior bargaining position).

In particular, when banks start providing household accounting services in the future, there may be a competitive relationship between banks and electronic payment service providers in the field of household accounting services, and banks may have incentives to exclude or interfere with transactions of rival electronic payment service providers. In such situations, it would be problematic under the Antimonopoly Act if an influential bank in the market refuses to have transactions with an electronic payment service provider or raises the level of connection charges to such an extent that it is practically equivalent to refusal, or limits the handling of information acquired from the bank as a means to exclude competitors from the market or otherwise achieve unjust purposes under the Antimonopoly Act (primary refusals to deal by a single enterprise, interference with a competitor's transaction).

It would be also problematic under the Antimonopoly Act even in the case of a bank that does not provide household accounting services if an influential bank in the market gives, without reasonable grounds, discriminative treatment to limited electronic payment service providers regarding the price for the same service or other transaction terms, including those requiring them to connect for a higher level of connection charges compared to other electronic payment service providers or limiting their handling of information acquired from the bank (discriminatory pricing, discriminatory treatment).

2. Transactions between Banks and System Vendors

(1) Viewpoint from competition policies

When banks in the future develop a new API connection infrastructure or review the existing API connection infrastructure, or otherwise procure systems related to the API connection infrastructure, it is desirable to secure sufficient competitiveness in the way of procurement. For example, if a bank gets estimates

[34] A business can be said to hold a superior position to a counterparty of transactions if the counterparty would be forced to accept any significantly disadvantageous demand of the business because its business management would face a serious difficulty when continuation of the transactions with the business becomes difficult (Ways of Thinking under the Antimonopoly Law regarding Abuse of Superior Bargaining Position, No. 2-1).

from multiple system vendors, not only an existing vendor but also outside vendors to have the system vendors compete in prices and other terms, an outside vendor will have an increased chance of getting an order by presenting better terms to the bank, or the existing vendor will be encouraged to reduce costs or improve the level of services, which also profits the bank.

To negotiate with system vendors on an equal footing to appropriately procure systems, a bank may work to eliminate information asymmetry, that is, a gap in the knowledge of systems between the bank and system vendors. For example, the bank may strive to secure insight and expertise for systems, including through securing and fostering talented personnel.

(2) Viewpoint from the Antimonopoly Act

As described in Chapter 3, section 1 (1) A (A) above, when a bank entrusts development of the API connection infrastructure to an outside vendor, it needs to request the existing vendor to disclose specifications of the existing system developed by the existing vendor or build a gateway. In this case, it would be problematic under the Antimonopoly Act if an influential existing vendor in the market refuses to disclose the specifications to an outside vendor without reasonable grounds or otherwise unjustly interferes with an outside vendor to receive from the bank entrustment of development of the API connection infrastructure (interference with a competitor's transaction).

It would be problematic under the Antimonopoly Act if an existing vendor, being influential in the market of development of core banking systems or IB systems, raises the price for or discontinues accepting entrustment for the existing IB system or other bank systems of a bank intending to entrust development of the API connection infrastructure to an outside vendor or suggests such action to force the bank into getting development of the API connection infrastructure from the existing vendor, unjustly precluding the bank from entrusting outside vendors (tie-in sales, trade with exclusive condition, etc.).

Chapter 5 Future Efforts

According to the actual condition of transactions grasped by this survey, banks and electronic payment service providers have gradually reached an agreement on contracts under the Banking Act, and it is expected that electronic payment service providers will continue providing household accounting services beyond the time limit for conclusion of contracts stipulated in the Act Amending Banking Act, the end of May 2020.

However, there remain inequalities in the transaction relationship between banks that keep the account information necessary for the provision of household accounting services and electronic payment service providers. Accordingly, it is expected that banks continue setting out transaction terms while giving attention to relations with the Antimonopoly Act, and the Japan Fair Trade Commission will deal rigorously and appropriately with any specific cases problematic under the Antimonopoly Act that the JFTC may encounter not only with transactions between banks and electronic payment service providers but also those between banks and system vendors.

Household accounting services would be improved by gathering not only account information kept by banks but a variety of information, and thus electronic payment service providers have an incentive to connect to not only banks but also other businesses engaging in finance-related business, including credit card companies and securities companies. Accordingly, it is expected that access to user information will be adequately secured also between those non-bank businesses and electronic payment service providers based on the ways of thinking discussed in this survey report.

The Japan Fair Trade Commission will continue to closely monitor the situation of transactions between banks and electronic payment service providers, and those between banks and system vendors to promote fair and free competition in the field of household accounting services.