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Report on a Fact-Finding Survey of the Credit-Decision System and Loan Pricing in Small Business Financing in Japan

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Abstract

In this paper, we report the findings from an interview survey on the system and process of lending decisions and loan pricing, as well as the information that is used in such processes. The survey targeted 19 regional financial institutions, including regional banks and cooperative institutions in Japan. We found that soft information is used in lending decisions but is rarely used directly in loan pricing, and found that each branch exercises greater discretion in loan pricing. Soft information affects loan pricing indirectly through each bank's internal credit rating process. Loan officers at a bank usually revise the financial statements submitted by client firms using soft information in order to more accurately reflect the actual conditions.

Keywords**:** decision authority, soft information, lending decision, and small business financing.

JEL Classification**:** G21; L14; L23; D82

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1. Introduction

In general, many unlisted small and medium-sized enterprises (SME) prepare financial statements to be filed with their tax returns. Since such statements are intended to reduce the amount that a business will pay in taxes, they do not always reflect the actual condition of the business. In lending to a firm, it is essential for a bank to monitor how a firm will use and repay the funds. However, without an on-site audit of a firm, a bank may not be able to monitor how borrowed funds are being used; therefore, banks need to observe cash flow, which includes collections and payments of trade credit, correctly and timely for the confirmation of repayment sources. As a result, prospective lenders must require that firms complete additional documents through bilateral negotiations with the firms that will lead to a realistic understanding of firm's financial condition and interview personnel of the firm to obtain pertinent unrecorded information. In this sense, investing substantial time to establish relationships with borrowers, primarily through a bank's loan officers, is more important when lending to small and medium-sized enterprises than to larger firms.

Whether soft (qualitative) information, such as that concerning managerial talent and employee morale, affects the management of a firm is difficult to measure quantitatively although a casual observation suggests that such soft information is important in credit decisions. If such information is proved to be important, then the manner in which a bank collects and uses such information should be examined. Any information collected in the manner described above is subjective. Therefore, bank loan officers may not always be consistent in their interpretation of such subjective information. Thus, the proper utilization of soft information requires both the bank's loan officers' individual monitoring ability (their ability to evaluate clients' business) and its organizational system to manage efficiently the information obtained. When verifiable hard information does not provide a clear view for a firm's actual financial standing, soft information has more value in the loan process. In fact, the empirical literature is supportive of this hypothesis. Many of these studies assume such variables as the duration of the lending relationship, the scope of the relationship, the lender-borrower distance, the lender size, and the frequency of a loan officer's visits to a borrower (or the frequency of a loan officer turnover) as proxy variables for the relationship strength and shed light on these variables' effects on loan approvable decisions and loan terms. The results of these studies not only reveal the importance of relationships for lending to SMEs but also provide important implications about competition in credit markets and the existence of small community lenders. Most studies in the literature, however, resort to quantitative analysis with imperfect understanding of actual steps taken toward finalizing a loan; thus, it is unclear in the real world what soft information is indeed emphasized and how it is utilized.

A bank is willing to collect accurate information about the creditworthiness of a borrowing firm only if the expected increase in the return from lending to the firm exceeds the cost of information acquisition. However, it is hard to estimate the expected value of such an increase in the return without obtaining accurate information beforehand. Establishing a bank-firm relationship helps a bank overcome this dilemma. Thus, the bank-firm relationship, which facilitates a smooth loan supply and a secure repayment, is a prerequisite for a bank to ensure stable profitability.

It would have been difficult for Japanese banks, which had excessively relied on land (real estate) as collateral for loans during the "bubble" period of the late 1980s, to develop their abilities to properly evaluate the creditworthiness of businesses and to build bank-firm relationships when they were under pressure to reduce the large number of non-performing loans and comply with capital adequacy regulations. An important question is what factors affect the incentives of banks to form close relationships with borrowing firms. The relationship between an SME and a bank depends on the attitudes of each responsible loan officer at a lending branch and/or its manager and on the branch manager's lending policy. If they understand the importance of stable bank-firm relationships and make efforts to aggressively collect information, the result would likely be the effective use of soft information and the improved availability of funds. On the other hand, if they do not perceive the necessity for such relationships, bank-firm relationships would inevitably become destabilized. Therefore, the lack of bank-firm relationships and the resulting deterioration of the capacity to evaluate the quality of businesses do not necessarily come from the deteriorating abilities of loan officers and/or branch managers. If banks give less priority on the development of such abilities due to changes in external environments, they reduce efforts to develop these abilities.

Thus, in light of the extant literature, it is important to clarify the factors that provide incentives for loan officers and branch managers to collect information and maintain close relationships with their borrowers, in addition to the concrete content of the information to which banks attach importance when making decisions for lending to SMEs.

In this paper, we intend to clarify the organizational structure and the decision-making authority for credit decisions using information collected from interviews with Japanese bank personnel. We emphasize how soft information is collected and utilized when making loan approval and loan pricing decisions. The information was obtained from interviews conducted at 19 banks (regional banks, regional banks II, and *shinkin* banks)[1] in 7 prefectures. Banks to be interviewed were selected from various classes of bank size and from regions and markets with various level of competitiveness.

The remainder of the paper is organized as follows. Section 2 deals with empirical questions that are difficult to quantify in relationship banking, particularly those related to the impact of the allocation of the decision authority. Section 3 contains a description of our interview survey, including its objectives, the selection of survey subjects, and the questions asked. Sections 4, 5, and 6 provide details of the information collected, namely, the credit-decision system (Section 4), the loan-pricing system (Section 5), and the ways to build a customer relationship and to collect and store client information (Section 6) by type of bank (regional or *shinkin* banks). In Section 7, the conclusion, remaining issues for further studies and the prospective directions for future research are presented.

2. Economic Theory on the Organizational Structure of Lending Decisions and Development of Empirical Questions

2.1. Relationship Banking

Small and medium-sized firms that are not publicly traded suffer from the problem of asymmetric information or the agency problem more severely than larger listed firms since the former are more uncertain in their performance and are informationally opaque because of the limited requirement for information disclosure. Based on this premise,

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[1] Banks belonging to the Association of Regional Banks are called *regional banks*, and those belonging to the Second Association of Regional Banks are called *regional banks II* in Japan. The latter are smaller in size. *Shinkin* banks (*Shin'yo Kinko*) are local cooperative financial institutions.

a large number of theoretical studies have been proposed to show the economic rationality of the various types of contracts or transaction customs in the practice of small business financing by applying the economics of information and the contract theory. Relationship banking, the long-term and multi-dimensional relationship between a bank and a firm, has been of interest to researchers for a long time.

Earlier theoretical studies focused on the possibility that long-term relationships facilitate an intertemporal implicit contract to induce the incentive of borrowers (Stiglitz and Weiss 1983; Bolton and Scharfstein 1990; Boot and Thakor 1994). These theories predict that a bank can capture borrowers with a good credit history by committing to refuse to lend if the borrower has failed to repay in the past but to loan at a rate lower than the competitive rate if the borrower has successfully repaid in the past. The possibility of a long-term relationship enables this implicit contract and encourages the bank to provide a loan to a firm new to the credit market, since the bank can expect the borrowers' appropriate effort to repay.[2]

A bank that maintains a long-term relationship with a firm can accumulate proprietary information through repeated transactions with the firm. For example, several studies empirically report the possibility that a bank can exclusively obtain real-time information about the creditworthiness of a firm by closely monitoring transactions on the checking account if a firm places all of its checking accounts at the bank with which it maintains the closest relationship (Fama 1985; Nakamura 1993;

[2] In relation to this theory, Petersen and Rajan (1994) find that the long-term relationship improves the credit availability measured by the percentage of trade credit repaid late and the percentage of early payment discounts that are taken by the firm from the National Small Business Financing Survey. Berger and Udell (1995) find that the interest rate is lower and the collaterals are less likely to be pledged if a firm maintains a long-term relationship with a lender from a dataset containing line-of-credit contracts collected from the same survey. Elsas and Krahnen (1998) also find a positive correlation between the credit availability and the length of a bank-firm relationship.

Nakamura, Mester, and Renault 2008; Norden and Weber 2010). It is also well-known that a bank can earn an excess return despite the lending competition if it has proprietary information that is not accessible to rival banks (Greenbaum, Kanatas, and Venezia 1989; Sharpe 1990; Rajan 1992; von Thadden 2004). For example, let us consider the situation in which banks are competing for lending to a firm and a bank among them has exclusive access to proprietary information about the creditworthiness of the firm. The bank with the information advantage can economize the cost of the error to accept a loan application from a firm lacking in repayment ability or the error to withhold one from a firm with sufficient potential to repay. Furthermore, the bank with less accurate information would be expected likely to accept a loan application from a firm with a negative prospect that was rejected by a more informed bank. For these reasons, the more informed bank can expect a larger return than a less informed one at any level of an offered interest rate. The informed bank can earn the rent from this cost advantage, whereas the less informed one can expect no more than a zero return.[3] In addition to this theory, there is a model in which relationship banking is defined by the costly proactive information acquisition by a bank, e.g., assigning a loan officer to each borrower (Hauswald and Marquez 2006).

An informed bank can also differentiate its services by taking advantage of the informational advantage. If the bank can determine temporary from permanent financial distress of a firm from the proprietary information at hand, then the bank can earn an excess return by establishing the reputation that it is willing to flexibly respond

[3] The loan interest rate in this case is higher than that in a case in which every bank can observe the proprietary information, and, therefore, the payoff to the entrepreneur of the firm is reduced because of this informational asymmetry among competing banks. Rajan (1992) points out the possibility that the entrepreneur who expects this sort of hold-up problem reduces his management efforts below the socially optimal level.

to renegotiations with firms under a temporary liquidity shortage (Chemmanur and Fulghieri 1994; Dinç 2000). The bank can also provide more effective consultation for its borrower to improve its creditworthiness. Boot and Thakor (2000) characterize relationship banking as a consulting service and show that this accompanying service facilitates the differentiation from the rivals and generates an excess return.

2.2. The Theoretical Nature of Proprietary Information: Soft Information

What characteristics is the proprietary information assumed to hold in theoretical models of relationship banking? First, proprietary information is the information that is not publicly available and is available only through direct contact with each borrower. In other words, by its very nature, it is private information. Among private information on the creditworthiness of a borrowing firm, the transaction documents of its checking account, timely financial statements, the firm owner's private assets/debts, his family structure, and his carrier history are verifiable to the third party by quantitative data or legal documents. In contrast, the manager's enthusiasm for his business, managerial competence, status/influence/reputation in the industry or the region, and future potential needs for funds are unverifiable by a third party since there are no objective documents or quantitative data on these factors. Verifiable information is relatively easy to transmit credibly to a bank that is new to the borrower if the borrower decides to do so because the borrower can show objective proof for the information. However, unverifiable information is relatively difficult to transmit credibly to a bank since the borrower cannot prove its accuracy and it requires that the bank new to the borrower make an effort to determine its accuracy. Therefore, unverifiable information is more likely to be held exclusively by a bank that maintains a long relationship and becomes the source of the excess return that results from information advantage. Theoretical studies generally call such private and unverifiable information *soft information* (Aghion and Tirole 1997; Dissein 2002; Stein 2002).

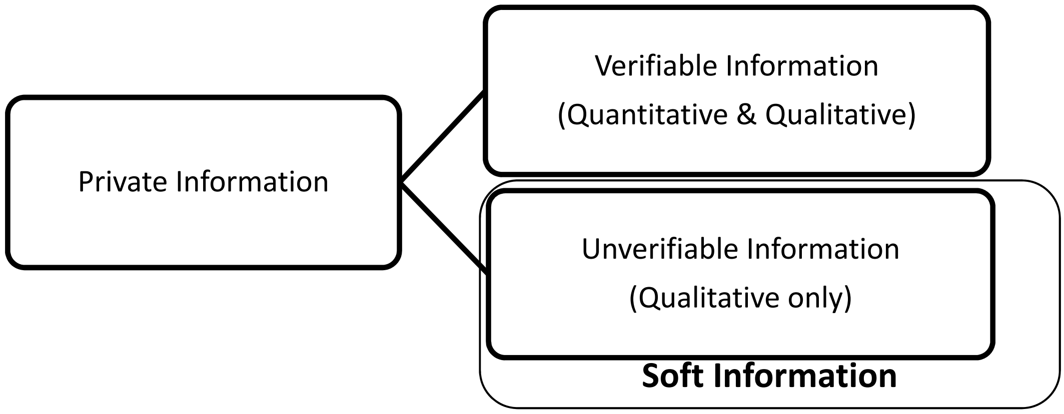

Figure 1: Type of private information

2.3. Allocation of the Lending-Decision Authority and the Use of Soft Information

Soft information can be difficult to transmit not only among organizations but also within each organization. For example, a loan officer at a branch usually collects information about a potential borrower's creditworthiness, including soft information, in the process of making a lending decision. If the decision authority is granted to the branch, then it is more likely that the soft information collected by the loan officer is made use of in the lending decision because it is relatively easier to share the soft information within a branch office. However, if the decision authority is held by the head office, the loan officer has to document and transmit the soft information to the head office. In the process of this information transmission, the soft information is likely to be ignored by the head office because of lack of verification. Thus, the allocation of lending-decision authority, decentralized or centralized, can be an important determinant for the extent of the utilization of soft information in making a lending decision or the loan officer's incentive to collect soft information, as assumed in the theory of relationship banking.

More concretely, several theoretical studies predict that a decentralized organization, in which the decision authority is granted to the agent who engages in collecting information, including soft information, is more likely to use soft information in decision making than a centralized organization, in which the central principal holds the decision authority (Aghion and Tirole 1997; Berger and Udell 2002; Stein 2002). The agent can make use of soft information that he collects by himself in order to maximize his own payoff. Therefore, the agent is more willing to collect soft information in a more decentralized organization; as a result, a bank with a decentralized structure can enjoy a comparative advantage in providing relationship banking. In addition to this theory, Dessein (2002) shows the possibility that the central principal strategically delegates the decision authority to the agent despite the expected agency cost resulting from the discrepancy between the agent’s objective and the principal’s, if the benefit of the information advantage of the agent is greater than the cost of this discrepancy.

2.4. Qualitative Empirical Questions

A number of empirical studies have already been conducted on the theories reported above.[4] However, for the evaluation of the plausibility of the assumptions in these

[4] Several empirical studies, using survey data of small business financing in the U.S. and Japan, find that smaller banks tend to maintain closer relationships with their borrowers and that their share of loans to small business among total loans tends to be higher than that of larger banks (Cole, Goldberg, and White 2004; Berger, Miller, Petersen, Rajan, and Stein 2005; Uchida, Udell, and Watanabe 2008). In addition, Benvenuti, Casolaro, Del Prete, and Mistrulli (2010), on the basis of survey data targeting Italian banks, find that banks that allocate more loan decision authority to branch loan officers maintain a higher share of small business loans among total loans even after controlling for the size of each bank. A couple of recent empirical studies used internal loan evaluation data of a certain commercial bank. Liberti and

theories in the context of small business financing, empirical questions that are not necessarily suitable to quantitative analyses or questions that require preliminary fact finding before collecting quantitative data still remain.

First of all, the theory of relationship banking assumes that banks can make a lending decision and quote a loan rate discretionally according to soft information and miscellaneous competitive conditions. However, we cannot completely deny the possibility that some banks may make a lending decision and quote a rate automatically by rule according to the internal credit rating rather than by discretion. Second, if lending decisions and loan pricing are discretionary, then the level in the financial institution that exercises such discretion and how that decision authority is allocated by each bank's internal rule must be clarified. Third, we do not have accurate information on what types of information are used in the decision at each level of the lending-decision process. Furthermore, it is not clear whether the concept of soft information is well suited to Japanese lending customs. Lastly, we need to conduct some preliminary fact finding before collecting quantitative data for a statistical analysis regarding how loan officers collect and accumulate information in practice and how the intensity of the information acquisition is related to the allocation of decision authority in each bank. The interview survey was designed to reveal answers to the qualitative

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Mian (2009) find that soft information is more frequently used in loan decisions if it can be finalized within a branch by rule but is less likely to be used if the final decision authority is held by the head office. Agarwal and Hauswald (2010) find that a bank tends to allocate more decision authority to branches geographically distant from the head office and that these branches collect soft information more intensively and enjoy lower loan delinquency rates and longer lending relationships. Besides these empirical studies on the decision structure, several empirical studies find that soft information is significantly useful for the credit rating of firms (Grunert, Norden, and Weber 2005; Nakamura and Roszbach 2010). It is also statistically found from the internal data of a foreign bank operating in Argentina that the loan officer rotation improves the incentive for them to report "bad" news about their clients to their bank (Hertzberg, Liberti, and Paravisini 2010), questions below.

3. Interview Survey of Financial Institutions: Outline of Survey Procedures and Results

The interview survey was conducted in order to understand the actual flow in which the loans for SMEs are processed and reveal how qualitative information is used in the process. At the same time, we investigated the effects of the difference in the category of loan applicants on the flow of credit decision, the approval or disapproval of loan applications, and the decision on loan terms. Specific issues surveyed are listed below:

- Credit-decision system
  - ・Decision-making structure in the lending decision.
  - ・Organizational structure of the credit department; segments by clients' sector and number of staff members.
  - ・Scope of decision-making authority; amount of loan, interest rate, and other loan terms at the levels of the loan officers, the branch section manager, the deputy branch manager, the branch manager, the credit department at the head office, the board of directors, and the president.
    - ＊Examples of specific cases submitted to the board of directors and/or the president.
    - ＊Ratio of loan decisions finalized at the head office and at the branch office.
    - ＊Development and background of the organizational structure and decision-making authority seen in time series and decisive factors of decision-making.
- Method of determining the credit-decision and lending stance

- Degree of dominance of the head office in policy implementation and degree of discretion allowed to a branch manager and a loan officer.
- Methods of setting operational objectives or lending targets at each branch office.
- Staff transfer cycle and job position succession system. Effects of staff transfer on the credit-decision policy.

● Acquisition of new clients and classification of loan applicants for management purposes

- Differentiation between new and existing clients in loan decisions and pricing.
- Differentiation between clients for whom the bank is the main bank and other clients.
- Differentiation between clients who transact with multiple banks and other clients.
- Differentiation of client companies according to size, type of business, region, and number of loans.

● Lending-decision process

- Time needed from loan application to loan execution.
- Documents submitted by the corporate client (obligatory or voluntary).

● Decision process of lending and its terms; amount of loan, interest rate, maturity, and repayment schedule.

- Credit examination.
- Method of credit rating and specific information.
- Importance of quantitative and qualitative information in credit decisions.
  - ＊ Contents of qualitative information to be considered in credit decisions.
- Relative importance of security and criteria for requiring security.
  - ＊ Real estate, chattels, guarantee by a borrower, and/or guarantee by a third

party.

＊ Use of the public credit guarantee system.

・ Correlation among the amount of loan, interest rate, maturity, repayment schedule, and security (interest rate setting matrix).

・ Consideration of administrative and capital costs in interest rate setting.

＊ Is the capital cost of a bank taken into account in loan pricing?

＊ To what extent are administrative costs identified and how are they assigned proportionately to loan pricing?

・ Effects of competition with other banks. Negotiation process and number of negotiation meetings.

・ To what extent is total profitability, the opportunity for the cross-selling of products (profitability including fee income), taken into account when setting an interest rate?

● How has the introduction of the Financial Inspection Manual published by the Financial Service Agency changed the credit decision?

● Meaning of relationship banking and its relative importance.

・ What has changed as a result of the Financial Services Agency's policy of placing importance on relationship banking?

・ What are the decisive factors (e.g., length of business relationship, share of business, scope of relationship, information provided by client, and involvement in corporate governance) in determining the depth of relationships?

・ How are banks building customer relationships?

・ Specifically, what positive effects (e.g., lower transaction cost and expansion of auxiliary transactions) will relationship banking have on a lender?

- Information gathering and storage system.
  - Method of information collecting and storing system.
  - Number of corporate clients covered by each loan officer and average number of visits per corporate client.
- Method of acquiring new clients.
- Diversified forms of lending.
  - Handling of credit-score lending and related problems.
    ＊Are there clearly defined criteria that make a distinction between relationship-type loans and transaction-type loans?
  - Current situation of loans secured by inventory and accounts receivable and its future possibilities.
  - Current situation of syndicated loans and securitization and future issues.
- Human resources development.
  - Succession of information gathering and evaluation know-how and techniques.
  - Introduction of an incentive system for loan officers.
- Expectations for public support, including a public credit guarantee and support of government-owned financial institutions.
  - Effects of the shift from full to partial guarantee of the public credit guarantee system.

The selection of the financial institutions covered by the interview survey was limited to regional financial institutions, regional banks, regional banks II, and *shinkin* banks, which are considered to place importance on relationship banking. Although we tried to make a geographical selection from the viewpoint of whether a region has a competitive loan market or a concentrated loan market, we selected a total of 19 financial institutions operating in competitive markets located in and around the metropolitan areas of central Tokyo, the Tama areas of Tokyo, Kanagawa (Yokohama and Odawara), Chiba, and Shizuoka and those in the concentrated markets of Toyama and Shiga. The list of financial institutions surveyed is as follows:

Regional banks: Chiba Bank, Hokuriku Bank, Shiga Bank, Shizuoka Bank, and Yokohama Bank (5 banks).

Regional banks II: Keiyo Bank, Shizuoka Chuo Bank, and Tokyo Tomin Bank (3 banks).

Shinkin banks: Asahi Shinkin Bank, Johoku Shinkin Bank, Kawasaki Shinkin Bank, Mishima Shinkin Bank, Ome Shinkin Bank, Sagami Shinkin Bank, Seibu Shinkin Bank, Sugamo Shinkin Bank, Tama Shinkin Bank, Tokyo Higashi Shinkin Bank, and Yokohama Shinkin Bank (11 banks).

The manager, section chief, and assistant section chief of the credit department at each financial institution responded to the interview survey; in some financial institutions, they were accompanied by staff members of the loan planning department, the management planning department, and the sales department. Each interview took, on average, more than 3 hours. In order to minimize the possible bias in interviewees' subjected opinions, we requested the disclosure of objective materials, such as in-house manuals and data. Almost half of the financial institutions agreed to provide them.

4. Credit-decision System and Lending-decision Process

4.1. Regional Banks

(i) Credit-decision System

The credit-decision organization at a head office is larger at a regional bank than at a shinkin bank. The number of staffers in the departments of a major regional bank who are involved in credit decisions is about 100, which is more than twice as many as that of a major shinkin bank. The functions of the credit department are largely divided into credit decision and credit management. Loan applications may be evaluated under a two-layered system, one on the basis of each individual loan application and the other on the basis of each client. In addition, loan applications by firms in industries that are considered to carry higher risks, such as the real estate sector, are cautiously evaluated at several financial institutions.

(ii) Decision-making Authority

The upper limit of loan approval authority of the branch manager depends on factors such as the credit rating of the loan applicant, the rank of the branch, including whether or not an executive officer is appointed as the branch manager, and the availability of collateralizable assets. In the case of a regional bank in a major metropolitan area, which competes with mega-banks, the decision-making authority of the branch manager in terms of the total credit amount is 1-2 billion yen. On the other hand, the loan approval authority of the branch manager of a regional bank located in a region where it barely faces the competition with mega-banks is much smaller, about 200-300 million yen.[5] We also found a regional bank that assigns the decision authority of 100-200 million yen even at a branch in which an executive officer is

[5] It is noteworthy, however, that it is not clear whether the amount is measured by that of unsecured credit or by that of total credit.

appointed as a branch manager, which is comparable to a larger shinkin bank. At some regional banks II, a branch manager has little decision-making authority. Within a branch, the extent of the authority to establish loan terms is delegated to a loan officer by the branch manager. Regarding packaged products, the decision may be made by a loan officer without the branch manager’s involvement.

The ratio of the number of decisions made by branches and those made by the head office varies widely at large regional banks. At some regional banks, most decisions are made at branches, whereas the head office makes the final decision with regard to one half of the loan applications. However, at other banks, nearly 70 to 80% of decisions are made at the head office. Although decisions are made at branch offices as frequently as at the head office, the head office makes an overwhelmingly large proportion (about 90%) of decisions on the basis of the total amount of loans.

The delegation of decision-making authority to branch managers at major regional banks in major metropolitan areas expanded in 2004. More decision-making authority is delegated to branch managers at major regional banks in rural areas because of the advanced credit risk management and the intention to reinforce relationship banking. It is natural to assume that the focus on relationship banking is a direct response to the Financial Services Agency’s prudential policy. It can also be part of the strategy of product differentiation in the face of intensified competition with mega-banks and regional banks entering the local market from nearby prefectures. These regional banks may aim at stopping the advance of mega-banks by gaining greater advantage in information acquisition through relationship banking. There is no change in the authority of branch managers at banks that are historically not viewed as competitors with mega-banks. It is noteworthy that, while branch managers are given more authority at large regional banks that compete with mega-banks, the authority of branch managers at smaller regional banks, which compete with shinkin banks and regional banks II, has not been expanded.

(iii) Organizational Structure of the Head Office and Branch Offices and the Speed of Processing Loan Applications

At a branch of a regional bank, loan proposals are circulated typically in three tiers from a loan officer to a loan manager and from the loan manager to a branch manager, or in four tiers, which include a deputy branch manager. At large regional banks, a block is set up for each geographical group of branches and the block head office in order to oversee branch offices in each block. A credit decision by the block manager may be conducted before a loan proposal is submitted to the credit department at the head office.

The credit-decision system at the head office is layered in several tiers based on ranks within the credit department and executive officers. The number of decision tiers ranges from three to seven. If a loan is too complicated and risky to be approved by an individual reviewer, such as a director of the credit department and an executive officer, it is reviewed at a managerial committee meeting (this is sometimes called a loan review meeting or a managing director meeting). Whether or not a loan is reviewed by a committee is determined on the basis of the size of the loan or the combination of size of the loan and the internal credit rating of the applicant. Sometimes, loan applications with serious negative impacts on a bank, such as negative rumors, are discussed at the meeting. The number of days varies between new and existing customers. The lending decision for a new customer requires more time than that for an existing customer. Regarding a new customer, the preliminary evaluation in advance of the formal credit decision may take from one week to three months.

(iv) Personnel Rotation

Loan officers are rotated at an interval of 3-5 years, and branch managers are rotated at approximately 2-year intervals at regional banks. This practice is used to prevent collusion with clients and also to give loan officers the opportunity to meet more clients.

(v) Setting Goals for Branch Offices

Goals for branches are set for total earnings and total loan values. Individual officers are not commended for achieving these goals so as to prevent excessive expansion in loan volume.

4.2. Shinkin Banks

(i) Credit-decision System

There is a wide difference in the scale of the credit-decision organization among shinkin banks of similar size. The group composition of the credit-decision organization also varies among shinkin banks. At some banks, credit decision and risk management units are set within the credit department. At other banks, the two are established as separate departments. Some shinkin banks have a business evaluation unit that screens on the basis of an applicant's technology rather than on collateral or financial position.

Moreover, some shinkin banks have the function of supporting the rehabilitation of firms carrying high credit risk and giving management advice to these clients in addition to making credit decisions regarding ordinary loan applications, planning a lending scheme, and managing non-performing loans. Some shinkin banks have already adopted a credit-decision system differentiated by the industrial sector of applicants.

(ii) Decision-making Authority

The decision-making authority of the branch manager is determined on the basis of the rank of a branch at some but not all shinkin banks. The decision-making authority may be established in accordance with the branch manager’s rank. The extent to which decision-making authority is delegated to branch managers varies from bank to bank.

Some shinkin banks set the scope of the decision-making authority based on data from a three-dimensional matrix consisting of the rank of a branch, the amount of unsecured credit, and the total loan value. Other banks set the criteria for the delegation of authority on the basis of three categories, debtors, total credit, and amount of unsecured credit; two, total loan value and unsecured credit; or one, only on the total loan value. Moreover, decisions on loans for red-light district business operators and a firm with non-performing and probably non-recoverable loans are made at the head office at some banks.

The upper limit of the decision-making authority on the total loan value by a branch manager is set at 100 million yen or more at some shinkin banks, while other banks set it at 50 million yen or more or around 30 million yen. As already pointed out, regarding the decision-making authority, in addition to the standard for total credit amount, the standards are usually set for the unsecured credit amount, which excludes the amount covered by collateral and the amount guaranteed by the Credit Guarantee Corporation. The ratio of the upper limit for the amount of unsecured credit to the upper limit for total loan value varies among banks. While, at most banks, the upper limit of unsecured credit is around 10 percent of that of the total loan value, it can reach as high as 30 percent. Even though the decision-making authority of branch managers has been expanding in response to intensified competition, at some banks, it has been diminishing or has remained invariant. The ratio of decision making on loans of the head office and branches is 50:50 at most banks. Banks that delegate large decision-making authority to branch managers generally show a higher percentage of loans approved at the branch, although there are some exceptions.

(iii) Organizational Structure of the Head Office and Branch Offices and the Speed of Processing Loan Applications

At a branch of a shinkin bank, loan proposals are circulated in four tiers, i.e., from a loan officer to a loan manager, then to a deputy branch manager, and then to a branch manager, and the hierarchical structure is not much simpler than that at regional banks. The decision-making authority at the head office is structured into four to seven tiers, including ranks within a credit department and executive officers. The credit-decision structure at a head office of shinkin banks is also not much simpler than that at regional banks. If individuals, such as staffers at a credit department, the director of a department, and executive officers, cannot make a decision regarding a loan application, the application is reviewed at the executive committee meeting. The criteria for holding the executive committee meeting (credit-decision meeting) depend either on both the loan amount and rating or on the loan amount alone. Some banks have a two-tiered committee system.

As explained above, the hierarchical structure of a credit-decision system consisting of branch offices, the head office, and the executive committee meeting at shinkin banks is not simpler than that at regional banks. Although the credit-decision system at regional banks includes more staff members, it is not because its structure is more complex but because regional banks have to deal with a greater number of loan applications.

The number of days required between a loan application and a loan approval decision varies among shinkin banks. It ranges from one day, two to three days, three to five days, three days to two weeks, and three days to three weeks. At some banks, the credit decision is completed in a longer period for new customers than for existing customers, and the speed of the credit decision can differ depending on whether it is conducted at a branch or at the head office. Although there is little difference in the speed of the lending decision among existing customers, the decision for new customers can take a longer period. The preliminary examination of loans for purchasing equipment normally takes two to three days if the plan is simple, but it requires one to two weeks if the plan includes the construction of a building.

(iv) Personnel Rotation

At shinkin banks, branch managers are on a rotation of about three years, whereas loan officers are on a rotation of no more than two years. In some cases, switches of loan officers have larger impacts on lending and credit-decision attitudes. In others, switches of branch managers have larger impacts.

(v) Setting Goals for the Branch Office

Goals are set for both the net operating income (a measure of management efficiency), and the amount of deposits and loans(a measure of volume), not at the individual level but at the branch level.

5. Loan Pricing System

5.1. Regional Banks

(i) Setting the Internal Baseline Rate for Each Loan

Many regional banks set the internal "baseline rate" for each loan by summing up the credit-risk cost, the capital cost; profit margin required by share holders of the bank, and the short-term prime rate. Some banks use the sum of the funding cost and the administrative cost per unit of funds in place of the short-term prime rate. The credit-risk cost is calculated on the basis of the three-dimensional matrix of the internal credit rating, the loan maturity, and the ratio of amounts covered by some guarantee or collaterals. Some regional banks add spreads depending on the sector of an applicant or the purpose of borrowing fund. All banks we interviewed, however, pointed out that they have to set the rate lower than the "baseline rate" due to competition with other banks.

At all interviewed banks, a branch is not allowed to make a final decision to offer a rate lower than the baseline rate. The branch needs to ask the decision to the credit department at the head office. The head office considers the "total profit margin," i.e., the potential future business expansion, the expected fee incomes from cross-selling various services, the yield of deposits, and the potential for transactions with a firm's manager and employees (employee salary transfer accounts, housing loans, etc.) when making a decision of whether or not to approve a sub-baseline-rate loan. Some banks admitted that they might offer low rates in view of future business potentials, aiming at gaining the position of a “main bank.” Thus, although regional banks set baseline rates, there is ample room for discretion when applying the baseline rate to actual loan pricing.

(ii) Information Used for Credit Rating

When deciding credit ratings, many regional banks use financial data revised on the basis of the actual conditions of borrower’s business operations. These banks gather information on the market value of its investments in affiliated firms, accounts receivable, the market value of inventory, the cost of sales, and assets personally held by the borrower’s manager through routine contacts, and they assess a borrower’s credit quality by revising financial data based on this additional information. Some regional banks use qualitative data, such as the concerns about the manager, the successor, the business, and the market of a client firm, to check credit standing from a negative point of view, for example, by lowering a credit rating by one notch when a certain set of qualitative conditions is met. On the other hand, a small number of regional banks use qualitative information, including a manager’s personal asset holdings, profile, abilities, and health and a firm’s internal control system, diversification of customers’ segments, position in the industry, and market environment, in order to change a credit rating positively. Regional banks II, which serve mainly corporate clients operating on a smaller scale than the clientele of regional banks, improve the accuracy of credit ratings by utilizing qualitative information. As a matter of fact, at every interviewed regional bank II, qualitative items accounted for 30-40% of items used for credit rating.

However, qualitative data are more likely to be assessed subjectively by a loan officer in charge, and several regional banks II admitted that establishing the system and the technology to objectively assess qualitative information is a future challenge. Some banks pointed out that, while they depend on quantitative data, such as financial data, when rating borrowers, they depend more on qualitative data when making a lending decision.

(iii) Additional Services

As part of the non-price competition, many financial institutions are aware of the importance of maintaining a stable supply of funds and the ability to provide advice, including the introduction of business connections, i.e., “business matching.” They hope that business matching will lead to the exploration of new business opportunities for their client and create a demand for new funds. At some banks, two or more staff members managing the information that can be utilized for business matching are appointed at each branch.

(iv) Collateral and Guarantee

Although all regional banks require, in principle, the personal guarantee of a firm’s manager in order to avoid a moral hazard, they recognize that it is not sufficient as a means of credit security. The most important means of credit security is the registered land pledged as collateral. In most cases, however, a main bank is the first mortgage holder, since the main bank is in the position to know first the availability of collateralizable assets. The public credit guarantee is often used when providing loans to firms with a low credit rating, such as small firms and startups, or when providing emergency loans. Many regional banks said that they had been carrying out the same credit evaluation and monitoring as for other ordinary loans before the introduction of the shared responsibility system.[6] However, a small number of banks admitted that their credit evaluation and monitoring had not been adequate when they provided fully guaranteed loans before the introduction of such a system.

5.2. Shinkin Banks

(i) Setting the Internal Baseline Rate for Each Loan

As in the case of regional banks, all shinkin banks interviewed indicated that they set the standard rate based on a certain set of rules. Many banks determine the baseline rate by adding the spread predetermined by the three-dimensional matrix predicated on three factors, the internal credit rating based on the financial data, the loan maturity, and the collateral/guarantee to the lower limit rate, which is the short-term prime rate or the sum of the funding cost and the administrative cost per unit of funds. While the credit rating is used to set the baseline rate at all banks, the use of the maturity and the coverage of loan security vary from bank to bank. In setting the baseline rate on the basis of the credit rating, many banks determine the spread to be added to the lower limit rate, such as the short-term prime rate, by estimating a default probability associated with a certain credit rating on the basis of a certain statistical model and the expected loss obtained by multiplying the estimated default probability to the recovery rate. At the same time, a few banks set the baseline rate on the basis of the bank-wide earnings objective to cover the capital cost of the bank.

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[6] The shared responsibility system was introduced into the public credit guarantee system on October 1, 2007. The ratio of a default loss covered by the public guarantee system decreased from 100% to 80% by this revision.

It is only for loan applicants with a relative low credit rating, in which case banks do not face competition with other lenders, that the standard rate can be applied without adjustments. Banks frequently offer a loan rate that is lower than the standard rate to loan applicants with a higher credit rating, since there is greater competition with other lenders. At some shinkin banks, such cases account for about 70% of total loan transactions. Nevertheless, the loans provided to loan applicants with a lower credit rating at the baseline rate are not necessarily more profitable than those provided to applicants with a higher credit rating at a discounted rate, as the banks have to increase the loan loss reserve for bad debts and, as a result, the credit cost also increases. Most banks limit the negotiation for the loan rate for a loan to a client up to twice. The reason for this is that further negotiation is considered to negatively affect the mutual trust between a bank and a client. Many banks set the standard rate at a higher level in advance, assuming that they will have to offer lower rates in many cases in the face of competition with other lenders. As in the case of regional banks, there is room for discretion when actually applying the standard rate to a borrower at shinkin banks.

At all shinkin banks that we interviewed, a final decision must be made by the credit department at the head office when applying a loan rate lower than the standard rate in view of competition with other lenders. In such a case, a loan officer at the branch must explain the reasons to the pertinent department at the head office (only in writing in many cases), where the qualitative information that is not found in the financial data is often used. The qualitative information includes information about a firm's manager's ability as well as about the manager's relatives, his managerial principles, the presence of a manager's successor, history of transactions, conditions of a firm's main business connections, past due accounts receivable, tax arrears, competitiveness in the industry, managerial foundation, such as technological capabilities, local reputation, and potential effects of the proposed loan on other transactions (transactions with a manager's relatives and housing loans to a firm's employees). In fact, more than 70% of sub-baseline-rate loan applications are approved by the head office at many shinkin banks.

(ii) Information Used for Credit Rating

The financial data used for credit rating is revised on the basis of the actual information collected by a loan officer at a branch, who meets with a firm's manager and examines the business condition on site. In many cases, the data are revised to reflect the insufficiency of depreciation, contents of the inventory, long-term unrecoverable loans, and loans to a firm's president. In fact, many respondents indicated that 50 to 70% of the data used for credit decision and for loan pricing were qualitative data, especially with regard to small firms. In addition, it has been confirmed that a number of shinkin banks estimate the default rate of small firms by incorporating qualitative data into the scoring model. The financial data are revised in many cases by consolidating a manager's personal assets to the firm's balance sheet. The closer the relationship that a bank has with a client, the more accurate information that it can obtain that would be useful for revising financial data properly. In general, shinkin banks tend to depend more heavily on qualitative data than regional banks.

(iii) Additional Services

While many shinkin banks think of the so-called "total profitability" that considers cross-selling of services other than loans, no banks have introduced a system to strictly manage profitability with respect to each individual client. However, all banks responded that there was virtually no case in which loans were offered at such a low interest rate that the credit cost could not be covered. Most banks responded that, when they were in an unfavorable position in the loan rate competition, they would resort to the use of non-price means, including maintaining stable relationships and providing value-adding services, such as the introduction of customers and experts, cooperation in product publicity, and business matching. These additional services include consulting-type services, such as business diagnosis, which contribute to the accumulation of data available for credit management. However, some banks pointed out that they had disadvantages over certain services, such as business matching, because their area of operation was smaller than that of regional banks.

(iv) Collateral and Guarantee

Real estate is often taken as collateral. However, if a regional bank is a borrower's main bank, its real estate is already pledged as collateral to the bank, and it is difficult for a shinkin bank to set collaterals. Some shinkin banks pointed out that, in reality, they are often forced to make uncollateralized loans. In making corporate loans, every bank demands a firm's representative's personal guarantee. This is not to ensure the recovery of the funds but to increase an incentive for repayments by clearly establishing legal responsibility. As a rule, most banks do not use the third-party guarantee because the recovery of loans from a third party guarantor is difficult. On the other hand, many banks frequently use public credit guarantees. These banks also pointed out that, when loans are covered by the public credit guarantee, credit decisions and monitoring tend to be lax even after the introduction of the shared responsibility system. Some banks use public guarantees as a means of developing new clients. However, some banks do not use the public guarantee system unless strongly requested by their client because interest rates on loans covered by the public credit guarantee tend to be lower and generate only small interest margins.

6. How to Establish Relationships and Collect and Accumulate Information

6.1. Regional Banks

(i) Collecting and Storing Information

Financial data and qualitative information, such as the ability of a firm's manager, owner funding capability, influence of the firm/owner on the local community, growth potential, strengths, industry position, technological level, and reputation of a firm, are collected by a branch loan officer or manager for a particularly important client. A loan officer visits the clients at least once every month and, in some cases, once or twice a week. The number of clients assigned to each loan officer varies from about 30 to 100. The information collected in this way had been managed and accumulated at each branch until recently, when many leading regional banks introduced a customer relationship management (CRM) system under which customer data, including qualitative information (e.g., negotiation track records and transaction status), can be shared by all branches. The system is used so that the head office, as well as the branch loan officers and managers, has access to the information. It facilitates the efficient transfer of customer information at loan officers' rotations.

(ii) Checking Accounts as a Source of Information

All banks reported the importance of keeping track of checking accounts. As the business performance of a small and medium-sized enterprise can change within 3 to 4 months, checking accounts that enable banks to track the cash flow of their clients serve as an important source of information.

6.2. Shinkin Banks

(i) Collecting and Storing Information

A loan officer of a shinkin bank visits existing clients primarily to collect funds and build relationships. When collecting funds, they collect monthly deposits and sales proceeds. While some banks charge fees to recover their considerable costs, others consider it valuable for understanding a client's needs. The typical number of loan officers at many banks ranges from 20 to 30 percent of the total staff. The number of corporate clients under management of each typical loan officer is approximately 40 to 50 clients. In an area in which the majority of accounts are held by individual customers and the number of corporate accounts is small, a loan officer may have as few as 10 to 20 corporate clients. A loan officer visits each corporate client at least once monthly and, in some cases, daily. A branch manager, in addition to a loan officer, visits important clients. The information gathered through these visits is maintained in the credit data file prepared for each client. At many banks, such information is managed at the branch level, and a system is set up under which the management of information is not interrupted by changes in loan officers. Although financial data are stored in a database that is accessible to all branches at many banks, few banks have established a system that makes qualitative information accessible to all branches.

(ii) Checking Accounts as a Source of Information

Officials at shinkin banks generally believe that account settlement information is important for real-time monitoring of cash flow. As in the case of regional banks, shinkin banks regard the presence of a checking account as an indication that the client considers the shinkin bank to be his main bank.

7. Concluding Remarks

In our interviews, the obvious difference by institutional type in the allocation of the decision authority was the upper limit of the loan value that can be finalized by a branch. There was no other significant difference in the lending decision process among bank types. In the process of internal credit rating, most financial institutions, including shinkin banks, evaluate each borrower on the basis of quantitative hard information, and only a small number of financial institutions use qualitative soft information.

However, a number of financial institutions have replied that they make use of soft information (such as firm owner's personal assets) acquired through a relationship with client firms to improve the accuracy of hard information (such as financial statements) so as to reflect their actual financial conditions. In a case in which soft information is not used in the internal credit rating, it is not possible for soft information, including that regarding a manager's personality or management philosophy, to affect such loan terms as interest rates. The evaluation by a loan officer or a branch manager documented in a preliminary examination (interviews and on-site inspection) prior to the submission of the formal loan application and loan proposals circulated for the approval of the loan application often include statements based on soft information;

however, the most important point to be considered in the credit decision is the verification of a borrower's repayment capacity.

With respect to a loan application over which a branch manager has full authority, including loan pricing, there is room to reevaluate the creditworthiness of an applicant based on soft information in addition to internal credit rating. The discretion by a branch manager appears to depend on the criteria of the branch performance evaluation at each bank.

In contrast, in a case in which the credit department at the head office has the final authority, soft information is used in the negotiation between a branch and the credit department when necessary. No banks set up a formal rule regarding the type of information to be used in this process, and, therefore, the type of information to be used is considered to be dependent on the lending stance of each bank.

In the interview survey, while no financial institution denied the importance of qualitative information in the lending decision, there was no institution that admitted that such information directly affected loan pricing. In other words, since reliable quantitative hard information is insufficient in SME finance, financial institutions are unable to make lending decisions on a loan application without qualitative soft information collected through relationship banking. It is possible that a loan could be approved on the basis of qualitative soft information, but it would rarely affect the loan pricing and the other terms of the loan. The officers of the financial institutions reported that such practices had become less common after the introduction of the internal credit rating system.

In fact, the internal baseline rate for each client is determined on the basis of the three-dimensional matrix of credit ratings, loan maturity, and coverage ratio after taking funding and administrative costs into account at all types of financial institutions. At all financial institutions, the approval by the credit department at the head office is required if a branch offers an interest rate lower than the internal baseline rate. The actual offered rate that is proposed by a branch in this case is usually determined in reference to the rates offered by the competitors. There were virtually no cases in which the actual offered rate was higher than or equal to the baseline rate except in cases in which there were doubts about a firm's ability to repay.

If the credit rating of firms based on qualitative soft information is treated as internal proprietary information, it is assumed that the loan terms for a main bank applicant (i.e., a corporate client in whose loan portfolio the bank has the largest share) are determined in a process that is different from that for a non-main bank applicant. However, no financial institution admitted that such differentiation had a direct influence on the lending decision and loan pricing. Rather, the differentiation is made from the viewpoint of promoting various financial services, and, as a result, it seems that the differentiation between main bank applicants and non-main bank applicants affects loan terms through the consideration of cross-selling of services. As already reported, the effective rate appears to be decided in reference to the rates offered by competitors. Nevertheless, an increasing number of financial institutions, regional banks in particular, are using the interest rate based on total profitability taking into account the return from cross-selling services as the lowest rate. The introduction of the total profitability-based rate will strengthen the relation between the scope of banking transactions and the breadth of relationships as it expands the leeway for further reducing interest rates.

The advantage for a financial institution of serving as a client's main bank lies in the fact that it can keep track of the client's cash flow through the checking account and monitor the client's repayment ability. The concentration of such transactions at the main bank seems likely to affect loan pricing by reducing the transaction cost. However, we found no evidence for that in our interviews, although many financial institutions admitted that a checking account can signal a liquidity shortage within a client firm.

If proprietary information cannot be reflected in loan pricing, funding costs and administrative costs per unit amount of loans become the most important factors in lending competition. In response to this price competition, shinkin banks and other small financial institutions are attaching the greatest importance to advisory capability to improve their business management of the client. This is because they intend to be chosen by a client as the counter party in financial transactions by gaining advantage in non-price competition even though they cannot compete on an equal footing with larger banks over loan terms.

With these major findings from the interview survey, we recognize the need to incorporate the information on the credit-decision system at each financial institution as explanatory variables in empirical studies on relationship banking. In particular, information such as the scope of the decision-making authority delegated to the branch manager, the disapproval rate of loan applications at the head office, the introduction of qualitative assessment items into internal credit rating, the branch office performance evaluation criteria, the introduction of a customer relationship management system focusing on the total profitability from each individual client, the emphasis on additional services, the training system for loan officers, and the dependence on the credit guarantee system is important to verify the importance of qualitative information.

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