SME Finance and Credit Rating of SMEs

Naoyuki Yoshino

Dean, Asian Development Bank Institute (ADBI)
Professor Emeritus, Keio University, Japan
nyoshino@adbi.org, yoshino@econ.keio.ac.jp
Contents

I. Introduction
II. Asian Financial Markets
III. SME Credit Rating in Japan
IV. Financial Education
V. Alternative Sources of SME Financing
I. Introduction: SME Finance

- Venture business:
- Successful Japanese examples:
  - Toyota, Honda, SONY, Seven-Eleven
- HONDA had no support by the government
- HONDA could not borrow money
- M-bank made loans to HONDA
- How to finance start-up business?
- Human capital development in SME
II. Asian Financial Markets: Main Features

1. Bank-dominated financial system
2. Small share of bond markets. Needs for long-term financing
3. **Lack of long-term investors** such as pension funds and life insurance
4. Bench mark bond market (sovereign bond)
   Infrastructure bond, corporate bond
5. High percentage of SMEs
6. Large share or Microcredit (finance companies);
   lack of venture capital
III. SMEs in Japan

Number of employees ('000)
- Large enterprises: 29,960 (68.6%)
- SMEs: 13,710 (31.4%)

Sales (Y billion)
- Large enterprises: 37,800 (51.2%)
- SMEs: 131,600 (48.8%)

Number of companies ('000)
- Large enterprises: 4,690 (99.7%)
- SMEs: 13 (0.3%)

Barriers for SMEs in Accessing Financial Institutions

Access to Finance by SMEs and Large Firms in Japan

Source: Bank of Japan (2014)
Borrower, Lender and Market

Borrower
SMEs
Individuals

Market

Lender
Banks
Microcredit

Information Asymmetry
Especially SME market
Four Accounts by SME

1. Account to show to bankers
2. Account to show to tax authority
3. His own account
4. Account to show to his wife
Credit Risk Database of Credit Guarantee

Credit Guarantee Corporations (Collect Data from SMEs)

SMEs (14.4 million data)

Financial Institutions
- 200 Regional Banks
- Credit Associations
- Credit Cooperatives
- Government Banks
- Central Bank

1. Government Support
2. Reliability
3. Security of Information

CRD

### Examined Variable

<table>
<thead>
<tr>
<th>No.</th>
<th>Symbol</th>
<th>Definition</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equity_TL</td>
<td>Equity (book value)/total liabilities</td>
<td>Leverage</td>
</tr>
<tr>
<td>2</td>
<td>TL_Tassets</td>
<td>Total liabilities/total assets</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Cash_Tassets</td>
<td>Cash/total assets</td>
<td>Liquidity</td>
</tr>
<tr>
<td>4</td>
<td>WoC_Tassets</td>
<td>Working capital/total assets</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Cash_Sales</td>
<td>Cash/net sales</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>EBIT_Sales</td>
<td>Ebit/sales</td>
<td>Profitability</td>
</tr>
<tr>
<td>7</td>
<td>Rinc_Tassets</td>
<td>Retained earnings/total assets</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Ninc_Sales</td>
<td>Net income/sales</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>EBIT_IE</td>
<td>Ebit/interest expenses</td>
<td>Coverage</td>
</tr>
<tr>
<td>10</td>
<td>AP_Sales</td>
<td>Account payable/sales</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>AR_TL</td>
<td>Account receivable/total liabilities</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Retained earnings = the percentage of net earnings not paid out as dividends, but retained by the company to be reinvested in its core business or to pay debt. It is recorded under shareholders’ equity in the balance sheet. Ebit = earnings before interest and taxes. Account payable = an accounting entry that represents an entity’s obligation to pay off a short-term debt to its creditors. The accounts payable entry is found on a balance sheet under current liabilities. Account receivable = money owed by customers (individuals or corporations) to another entity in exchange for goods or services that have been delivered or used, but not yet paid for. Receivables usually come in the form of operating lines of credit and are usually due within a relatively short time period, ranging from a few days to a year.*
Cluster analysis: The average linkage method

Dendogram Using Average Linkage
Grouping Based on Principal Component and Cluster Analysis

Group “B”

Group “A2”

Group “A1”

Z1 (Short-term Asset)

Z2 (Net income)

Z1 (Short-term Asset)
Credit Rating of SMEs using Asian Data

(i) Sales
(ii) Assets
(iii) Liquidity (Cash)
(iv) Total Debt
IV. Financial Education for SMEs

Education Program and Textbooks

1. Financial Planners Association: Individual Borrowing

2. Central Bank of Japan: Text books, educate school teachers, regional Education Program

V. Alternative Solutions: Start up businesses

Hometown Investment
A Stable Way to Supply Risk Capital

Yoshino, Naoyuki; Kaji Sahoko (Eds.)
2013, IX, 98 p. 41 illus., 20 illus. in color

Available Formats:
• ebook
• Hardcover
Bank-based SME financing and regional financing to riskier borrowers

1. Bank Loans to relatively safer borrower
2. Hometown Investment Trust Funds/
E-Finance, Internet financing

- Safer SMEs
- Riskier Borrowers
- Hometown Investment Trust Funds
- Banking Account
- Depositors
- Investors
Investment in SMEs and start up businesses
Two Types of Investors

1. Community Type Infrastructure
   - Hometown Investment Trust Funds
     - Wind power Generator Funds
     - Japanese Wine Fund
     - Local Airport
     - Agricultural Sector

2. Large Projects and Professional Investors
   - Pension Funds
   - Brown fields
   - Insurance companies
   - Not green field
   - Mutual Funds

1. Credit Guarantee System
   • 100% guarantee
   • Partial guarantee (80%, 20%)
2. Differential guarantee ratio to each bank based on their past performance
3. How to avoid moral hazard?
4. To reduce information asymmetry
5. Temporary downturn of business
6. Structural downturn of business
7. Costs and Benefits of Credit Guarantee
Thank you very much for your attention