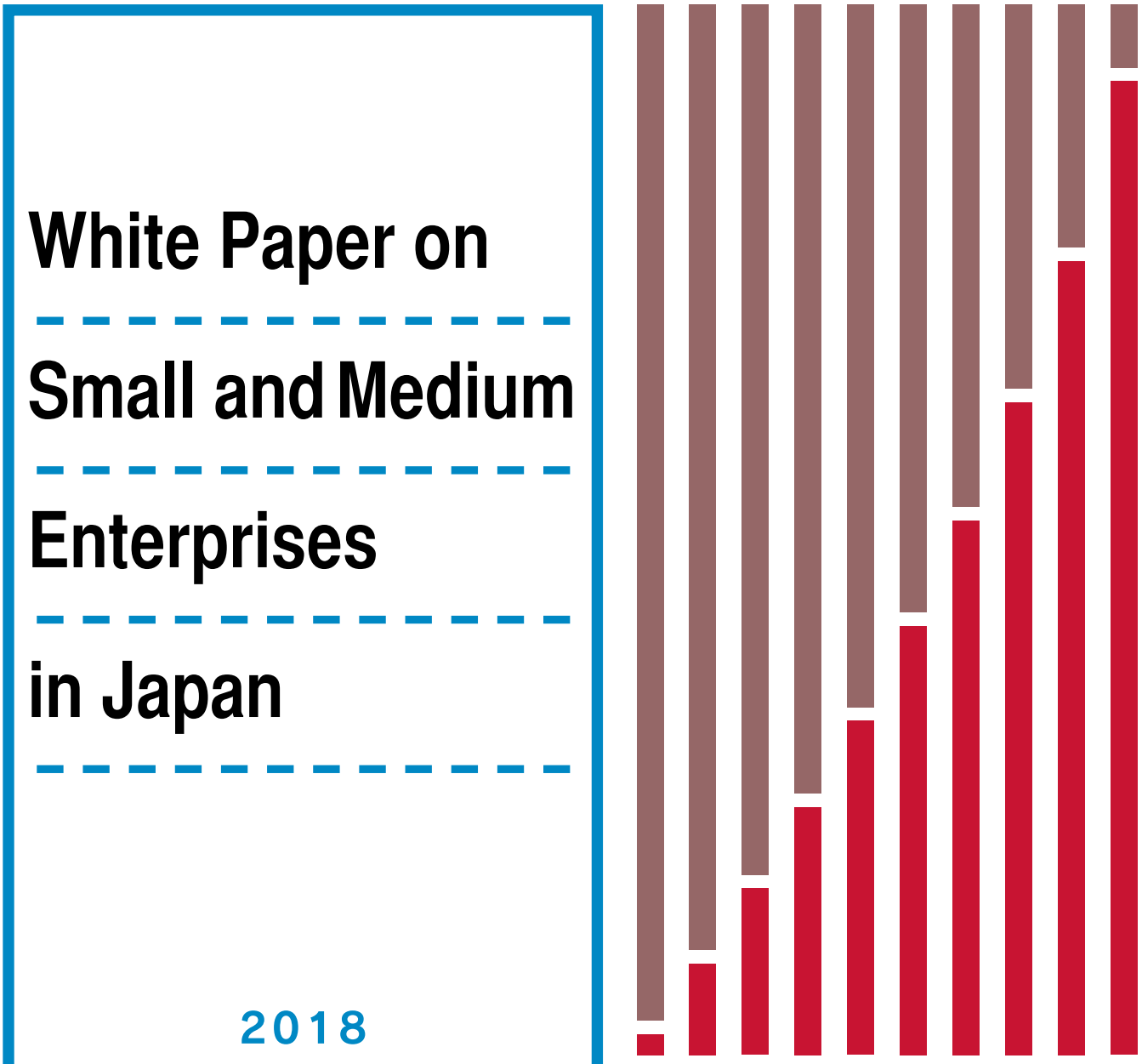
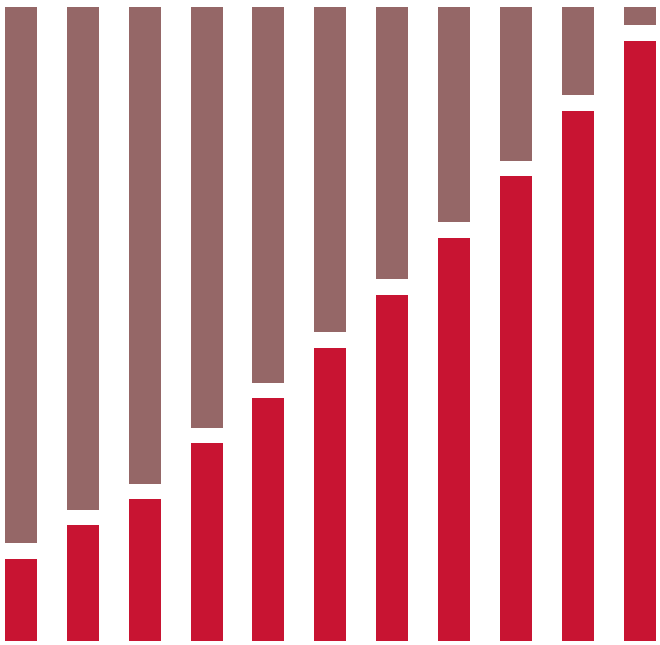
White Paper on Small and Medium Enterprises in Japan

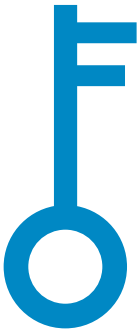
2018





Strength to Overcome Labor Shortage

The Key to Increasing Productivity



National Association of Small and Medium Enterprise Promotion Organizations

Outline of the 2018 White Paper on Small and Medium Enterprises in Japan

Part I of this report analyzes recent SME trends and examines the labor productivity and management of SMEs.

Based on the information presented in Part I, Part II discusses the initiatives of SMEs to improve productivity, with a focus on their review of work processes, initiatives for the effective use of human resources, introduction of IT, capital investment and business restructuring and integration based on M&A.

Part I Developments among SMEs in fiscal 2017

Developments among SMEs

This chapter analyzes the improving business conditions of SMEs, as seen in their record-high ordinary profits on the back of the gradual recovery of the Japanese economy.

Structural analysis of SMEs

This chapter analyzes the present status and changes in the number of SMEs in Japan, their numbers of workers and their added value by categorizing them according to their total number of regular workers and year of establishment. It shows that the numbers of small enterprises with a long history are significantly declining and that enterprises with a short history are employing increasing numbers of employees.

Labor productivity of SMEs

In this chapter, changes in the labor productivity of SMEs over the past decade is categorized based on their growth in number of employees and added value. Approximately 20% of all SMEs saw larger growth in added value compared to the growth in their number of employees, and they have also increased their productivity. Focus will be placed on their initiatives to increase productivity as a requisite to achieving this realm.

The state of SME management

This chapter analyzes the impacts that SME management has on investment behavior and business initiatives. It shows that many SMEs are managed by an owner, and that while this allows management from a long-term perspective on the one hand, it hinders the holding of board of directors' meetings and the formulation of management plans on the other hand.

Part II Worsening labor shortages and SME productivity reforms

The worsening labor shortage situation

This chapter provides an overview of the current state of labor shortage that is becoming a serious issue to SMEs and analyzes their responses to this situation. It will also examine initiatives for uncovering potential workers such as among women and senior citizens.

Review of work processes are instrumental to productivity improvement

This chapter discusses the importance of reviewing work processes as a means for identifying issues within the work processes of one's company and addressing each issue before making capital investments, utilizing IT or taking other such initiatives.

Increasing labor productivity through devices on the personnel side

This chapter examines initiatives for using limited numbers of workers to engage in business operations, with a focus on multi-skills development, multi-tasking and outsourcing, which have also spread among non-manufacturing industries in recent years. It will also examine the status of human resource development initiatives.

● **Realizing increased labor productivity through the use of IT**

When SMEs are asked about specific issues in introducing IT, many say they do not see the benefits, or they cannot bear the cost of introducing IT. Based on this awareness, this chapter shows that it is important for local IT makers and sales companies to encourage SMEs who they regularly work with, to introduce IT.

This chapter also discusses the importance of linking data between business segments (such as between financial accounting data and payroll management data) and between companies to further enhance the benefits of utilizing IT.

● **Improvements in labor productivity due to capital investment**

Capital investment by SMEs is on a gradually increasing trend, but it is allocated mainly to maintenance and upgrade aging facilities. This chapter discusses the need to further promote investment in energy-saving measures and other such investment that will lead to improving productivity.

● **Improved labor productivity through business restructuring and integration based on M&A**

The number of M&A cases is increasing among SMEs facing the issue of business succession. This chapter shows that to SMEs on the acquiring side as well, M&A presents an opportunity to increase productivity by producing synergistic effects with the enterprise on the acquired side.

Additionally, as SMEs find M&A partners via introduction from a third party such as a financial institution, this chapter also discusses the importance of facilitating smooth M&A match-ups.

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Introductory notes

1. In this report, the term "small and medium enterprises (SMEs)" refers to small and medium enterprises as defined under Article 2, Paragraph 1 of the Small and Medium-sized Enterprise Basic Act, and the term "small enterprises" refers to "small enterprises" as defined under Article 2, Paragraph 5 of said act. In addition, "medium enterprises" refers to SMEs other than small enterprises. (More specifically, SMEs and small enterprises may roughly be categorized as follows.)

Industry	SMEs (meet one or more of the following conditions)		Small enterprises included among SMEs at left
	Capital	Number of regular employees	Number of regular employees
1) Manufacturing, construction, transport, other industries (excluding 2)-4))*	Up to ¥300 million	Up to 300	Up to 20
2) Wholesale	Up to ¥100 million	Up to 100	Up to 5
3) Services*	Up to ¥50 million	Up to 100	Up to 5
4) Retail	Up to ¥50 million	Up to 50	Up to 5

* The following industries are separately stipulated as shown below, based on government ordinance related to SME legislation.
[SMEs]
1) Manufacturing
- Rubber product manufacturing industry: Up to ¥300 million in capital or up to 900 regular employees

3) Services
- Software industry & information service industry: Up to ¥300 million in capital or up to 300 regular employees
- Hotel industry: Up to ¥50 million in capital or up to 200 regular employees

[Small enterprises]
3) Services
- Accommodations industry & amusement industry: Up to 20 regular employees

2. This report draws largely on recompiled statistical data published by the Japanese Government and the results of surveys conducted by various private-sector entities. Sources, methods of calculation and other relevant information are specified where data are cited, but notes specific to each data source are summarized below. The phrase "Recompiled from" that is used in this paper indicates that the results shown have been independently calculated by the Small and Medium Enterprise Agency using questionnaire data obtained from various statistical surveys.

(1) Ministry of Economy, Trade and Industry (METI), *Census of Manufactures*
This survey provides statistics on numbers of business establishments. Surveys of all business establishments are conducted in years ending in 0, 3, 5 and 8 (up to the FY2008 survey), and surveys of business establishments and similar entities with no less than four workers are conducted in all other years.
In this report, business establishment data for each year are consolidated for analysis. It should be noted, however, that if a business establishment has three workers one year and four the next, it is treated as a new entry. (Conversely,

a business establishment that goes from having four workers is treated as having exited.)

(2) METI, *Census of Commerce*
This survey provides statistics on numbers of business establishments.

(3) METI, *Basic Survey of Japanese Business Structure and Activities*
This survey covers only incorporated businesses with 50 or more workers and a capital or investment of at least ¥30 million. Thus, the results do not include small enterprises. Note that the formal name of the survey is "Ministry of Economy, Trade and Industry's Basic Survey of Japanese Business Structure and Activities," but it shall herein be referred to as "Basic Survey of Japanese Business Structure and Activities."

(4) Ministry of Finance (MOF), *Financial Statements Statistics of Corporations by Industry, Annually* and *Financial Statements Statistics of Corporations by Industry, Quarterly*
As these statistics focus exclusively on incorporated businesses, they do not reveal overall trends among small enterprises. In consideration of sample sizes and response rates, moreover, the results concerning small enterprises need to be viewed with some latitude. It should also be noted that the quarterly version does not include corporations with a capital of less than ¥10 million.

(5) Ministry of Internal Affairs and Communications (MIC), *Establishment and Enterprise Census, Economic Census for Business Frame* and MIC/METI, *Economic Census for Business Activity*
This census provides statistics on both business establishments and enterprises. In this report, enterprise-based analyses using these statistics also include sole proprietorships. However, the size of sole proprietorships is determined based on the number of workers at their head office or principal place of business only, as name gathering is unfeasible. Additionally, the *Economic Census for Business Frame* and the *Economic Census for Business Activity* cover the same survey subjects as the *Establishment and Enterprise Census*, but differ from it in that they (1) capture a greater range of business establishments and enterprises by using commercial and corporate registers and other administration records, and (2) adopt a method of surveying enterprises and establishments en bloc by having head offices report information on their branches and other operations. It should thus be noted that numerical differences compared to the results of the *Establishment and Enterprise Census* do not all indicate increases or decreases.

3. This report contains analyses based on questionnaire surveys on SMEs and micro businesses and other respondents conducted by various private-sector organizations commissioned by the Small and Medium Enterprise Agency (SME Agency). It should be noted, however, that not all enterprises surveyed have responded to these questionnaires.

4. The indicators for SMEs and micro businesses vary more widely than those for large enterprises. Thus, when examining statistics on SMEs and micro businesses, it should be noted that the mean values may not necessarily represent the standard state of SMEs and micro businesses.

5. The map of Japan shown in this report does not necessarily represent the entire territory of Japan.

Part I

Developments among SMEs in fiscal 2017

Chapter 1

Developments among SMEs

The Japanese economy has shifted to a gradual recovery trend since the end of 2012. The length of this trend has surpassed the Izanagi boom (November 1965 – July 1970), and may have become the next longest postwar recovery phase after the economic expansion period during the 14th business cycle (February 2002 – February 2008).

During this present recovery phase, corporate profits reached record high levels on the back of a robust global economy, and a positive economic cycle was seen in the areas of income and employment, with an increase in the number of employed persons despite a decline in the working-age population. At the same time, however, SMEs continued to face a sense of uncertainty about the future that stemmed from a shortage of workers, stagnant labor productivity, lack of successors and other such issues.

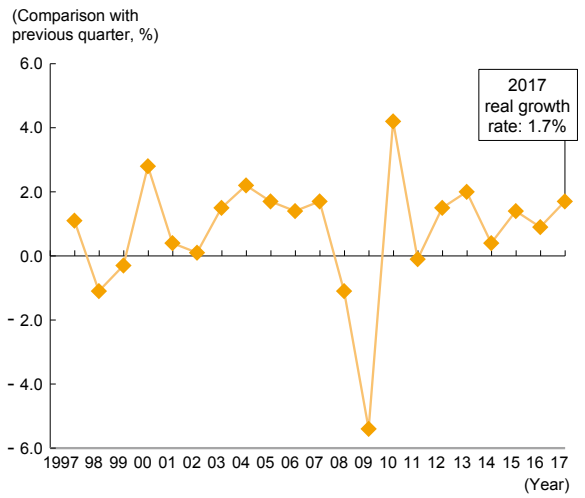
Below, we shall examine recent economic developments among SMEs.

Section 1 Current state of Japan's economy

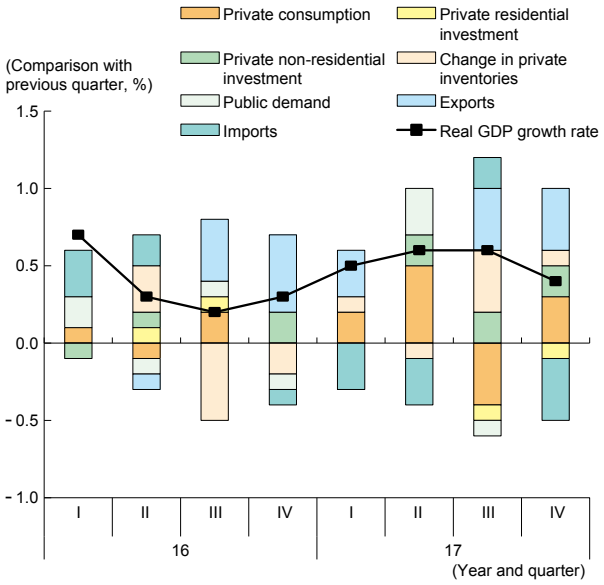
First, let us examine developments in the Japanese economy. A look at the trend in Japan's real GDP growth as a measure of economic growth shows that annual growth rate reached 1.7%[1)] in 2017 and surpassed the figure for 2016 (Fig. 1-1-1). In fact, it not only came second to the latest high of 2.0% achieved in 2013, but it also marked the eighth consecutive quarter of positive growth. Well-balanced growth was seen in all demand categories beginning with exports, as an indication of the widespread impact of the positive economic cycle.

Fig. 1-1-1 Real GDP growth rate

(1) Real GDP growth rate



(2) Contributions to real GDP growth rate



Source: Cabinet Office, *System of National Accounts*.
Notes: 1. 2011 chained yen system
2. Figures are based on "Quarterly (secondary) preliminary GDP estimates for the fourth quarter of 2017" (announced March 8, 2018).

1) Figure from "Quarterly (secondary) preliminary GDP estimates for the fourth quarter of 2017" (announced March 8, 2018)

Next, let us examine the actual business conditions of enterprises in terms of the business conditions DI presented by the Bank of Japan's (BOJ) *Short-Term Economic Survey of Enterprises in Japan* (hereinafter referred to as BOJ Tankan) (Fig. 1-1-2).

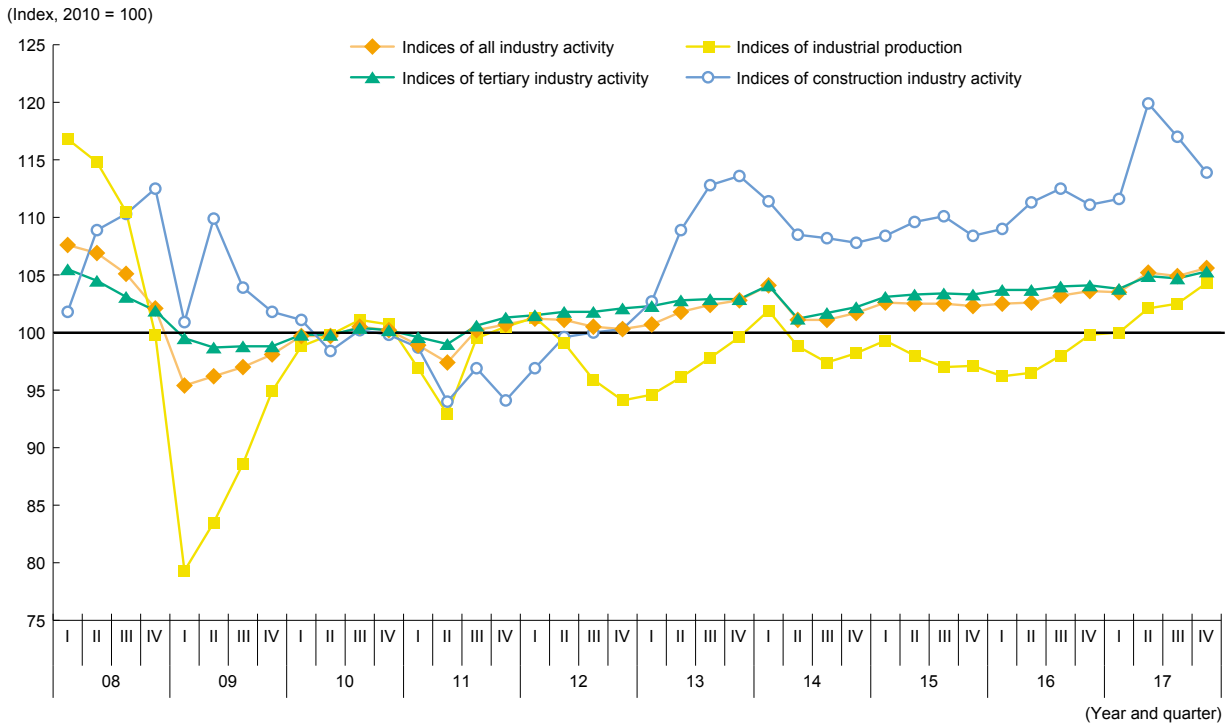
The business conditions DI continued to show a generally rising trend since after the Lehman crisis, but it dropped in the June 2014 survey in reaction to the last-minute demand before the consumption tax increase and remained low in the context of economic deceleration in China and other emerging countries, the market disruption accompanying the UK's exit from the EU, and a slowdown in consumption. In the latter half of 2016, however, exports picked up and prompted an improvement in both the manufacturing and non-manufacturing industries, such that the percentage of companies that described recent business conditions as "good" began to surpass the percentage of companies that described the conditions as "poor." The signs of improvement continued on into 2017 in both the manufacturing and non-manufacturing industries, and the business conditions DI rose to a level above that in 2007 before the Lehman crisis.

Fig. 1-1-2 Business conditions DI by industry

Source: BOJ, *Short-Term Economic Survey of Enterprises in Japan* (BOJ Tankan).
Note: Business conditions DI is calculated as the percentage (%) of companies that described recent business conditions as "good," minus the percentage (%) of companies that described them as "poor."

Furthermore, let us look at the status of corporate activities (Fig. 1-1-3). In the manufacturing industries, the indices of industrial production showed a rising trend after the second quarter of 2016 and exceeded 100 in the first quarter of 2017 for the first time since the second quarter of 2014. With respect to tertiary industries, such as the services and retail trade industries, the indices for tertiary industry activity continued to show a gradual rising trend since 2011 and recovered to the same level as before the Lehman crisis. In the construction industry, the indices of construction industry activity maintained a rising trend on the whole, topping all other indices since 2013. Lastly, the indices of all industry activity, which combines the above three indices and represents the overall status of corporate activities in Japan, dropped in the second quarter of 2014 due to the impact of the consumption tax increase, but thereafter trended on a strong tone as an indication of the gradual revitalization of corporate activities.

Fig. 1-1-3 Indices of all industry activity



Sources: METI, *Indices of Industrial Production, Indices of Tertiary Industry Activity, Indices of All Industry Activity.*

Section 2 Current state of SMEs

In the previous section, we confirmed the gradual recovery of Japan's economy as represented by steady real GDP growth, favorable business conditions and increased corporate activities. In this section, we will focus on the state of SMEs within this situation and examine their business conditions, earnings, investments, financial status and bankruptcies, as well as the status of their business relationships and overseas expansion.

1. Business conditions

Here, let us first examine the status of SMEs according to the business conditions DI (the percentage (%) of companies that described recent business conditions as "good," minus the percentage (%) of companies that described the conditions as "poor," in comparison with the previous quarter) presented in the *Survey on SME Business Conditions* (hereinafter, Business Conditions Survey) conducted by the SME Agency and the Organization for Small & Medium Enterprises and Regional Innovation, Japan (SMRJ), in which 80% of the enterprises surveyed are small enterprises (Fig. 1-1-4).

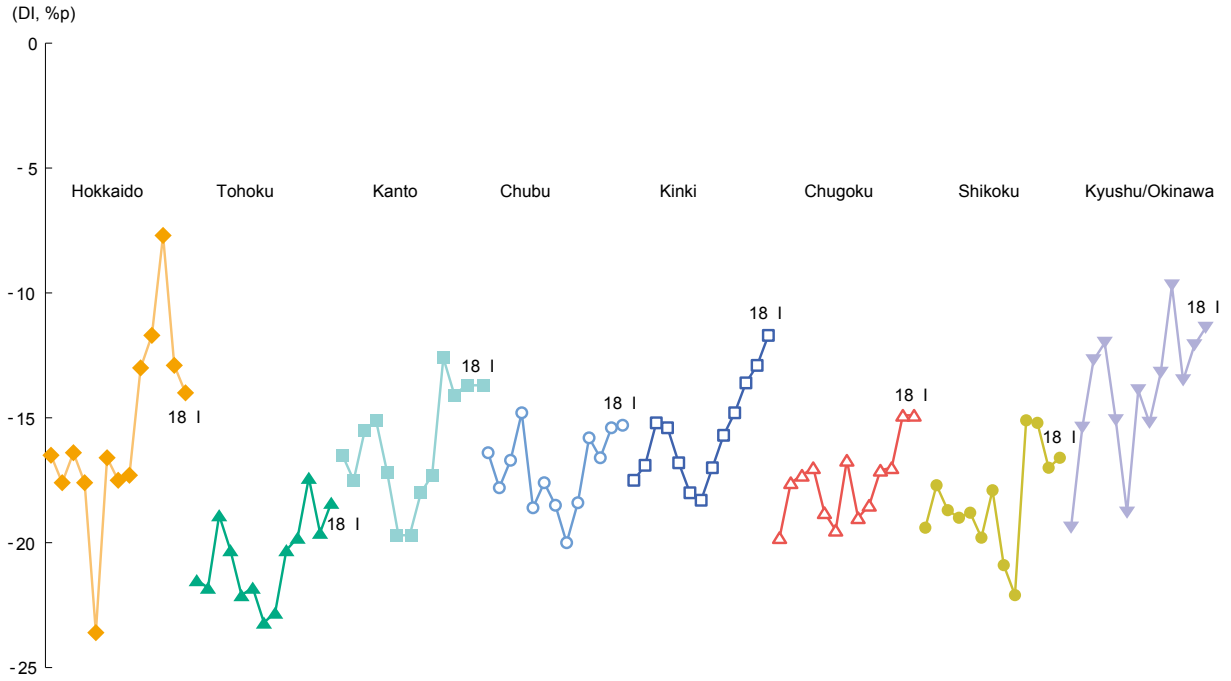
The business conditions DI of SMEs (medium enterprises and micro businesses) generally improved over the past decade, although it plunged once in 2009 and dropped a number of times again in the wake of the Great East Japan Earthquake and consumption tax increase among both medium enterprises and micro businesses. Throughout the year in 2017, the index showed a gradual recovery trend among enterprises and businesses of all sizes and surpassed the level in 2007 before the Lehman crisis.

Fig. 1-1-4 Business Conditions DI by enterprise size

Source: SME Agency and SMRJ, *Survey on SME Business Conditions*.
Notes: 1. The business conditions DI in the survey is the percentage of companies that described recent business conditions as "good" minus the percentage (%) of companies that described the conditions as "poor," in comparison with the previous quarter.
2. Here, SMEs refer to "small and medium enterprises" as defined in Article 2 Paragraph 1 of the Small and Medium-sized Enterprise Basic Act; micro businesses refer to small enterprises as defined in Article 2 Paragraph 5 of the Small and Medium-sized Enterprise Basic Act; and medium enterprises refer to enterprises among SMEs that are not micro businesses.

Next, a look at the business conditions DI of the survey discussed above by region[2] shows that the business conditions of SMEs were generally on an improving trend throughout the year, although some regional differences in level and movement were observed (Fig. 1-1-5 (1)). Similarly, the business conditions in each industry also showed an improving trend throughout the year, although there were some differences according to industry (Fig. 1-1-5 (2)).

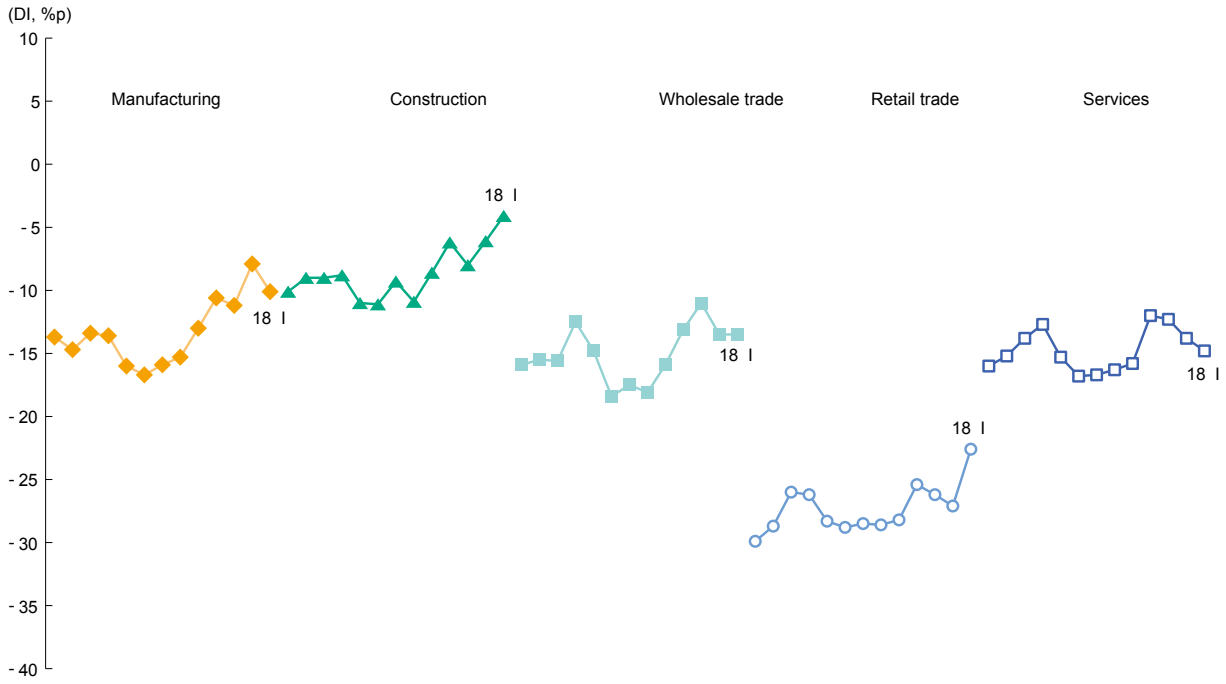
Fig. 1-1-5 (1) Business conditions DI by region



Source: SME Agency and SMRJ, *Survey on SME Business Conditions*.
Notes: 1. The period covered is from the first quarter of 2015 to the first quarter of 2018.
2. Regional categories are based on prefectures that are under the charge of each Regional Bureau of Economy, Trade and Industry. Niigata, Yamanashi, Nagano and Shizuoka are included in Kanto; Ishikawa and Toyama is included in Chubu; and Fukui is included in Kinki. Kyushu/Okinawa is the total of all prefectures in Kyushu and Okinawa.

2) For details on the business conditions DI in the three major metropolitan regions or regions other than the three major metropolitan regions, see Appendix 1-1-1.

Fig. 1-1-5 (2) Business conditions DI by industry

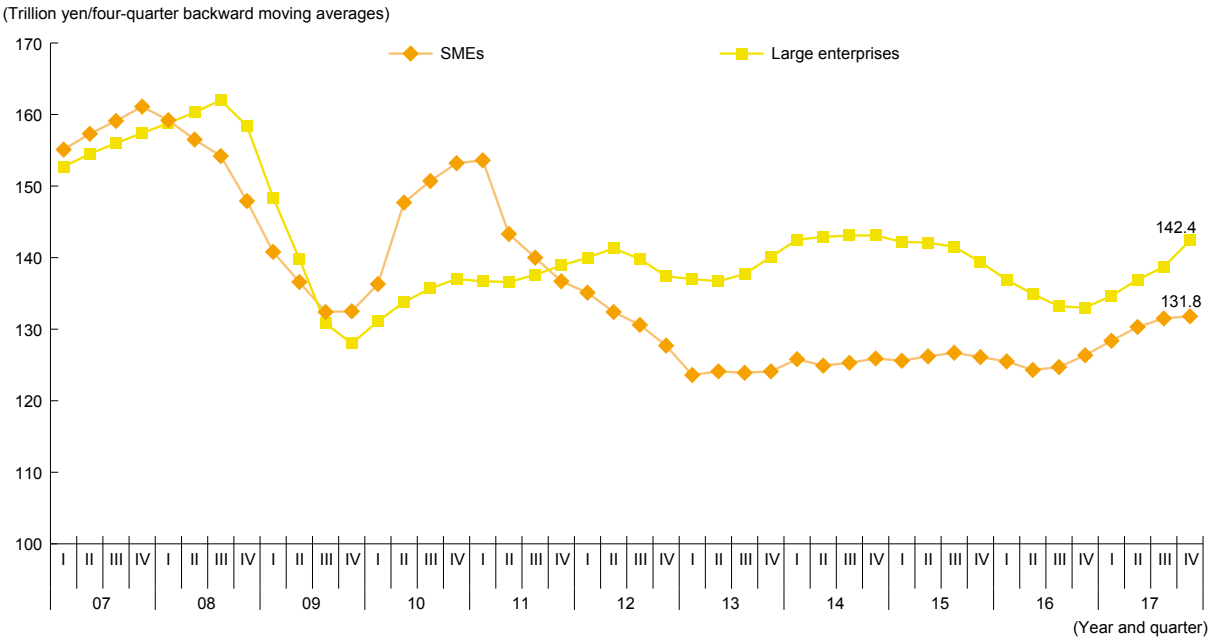


Source: SME Agency and SMRJ, *Survey on SME Business Conditions.*
Note: The period covered is from the first quarter of 2015 to the first quarter of 2018.

2. Earnings

Next, let us look at the status of earnings among SMEs. According to the *Financial Statements Statistics of Corporations by Industry, Quarterly* of the MOF, sales among SMEs over the past decade showed a continuous declining trend in 2011 and 2012 but leveled off after the first quarter of 2013 (Fig. 1-1-6). In the third quarter of 2016, recovery of the global economy helped sales return to an increasing trend, and an increase of approximately ¥5.4 trillion was achieved over the year in 2017. This situation seemed indicative of the gradually shrinking difference between SMEs and large enterprises.

Fig. 1-1-6 Sales by enterprise size

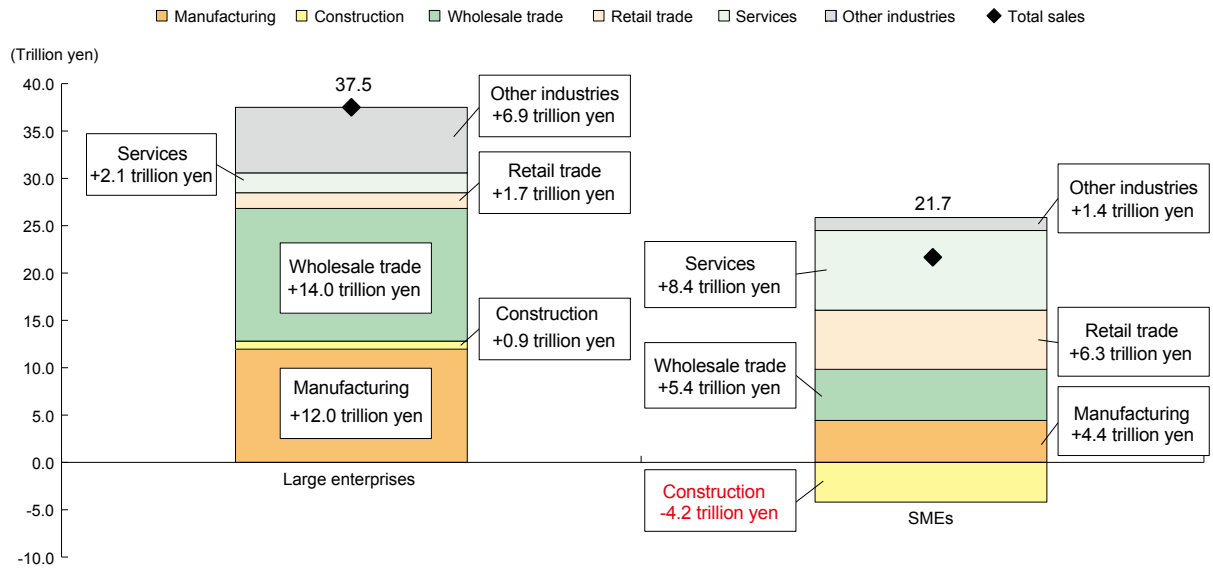


Source: MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly.*
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

To assess which specific industries contributed to increasing sales in 2016 and 2017 immediately before sales switched to an increasing trend, let us break down total sales achieved between the two points in time by industry and by enterprise size (Fig. 1-1-7).

Among large enterprises, all six industry divisions boosted sales, with the largest contribution made by the wholesale trade industry (+¥ 14.0 trillion) and manufacturing industries (+¥ 12.0 trillion). Among SMEs, the services industry (+¥ 8.4 trillion) and retail trade industry (+¥ 6.3 trillion) contributed the most with figures that largely surpassed their large enterprise counterparts. However, while practically all SME industries contributed to boosting sales, the SME construction industry was an exception, with its decline in sales (-¥ 4.2 trillion) contributing to pushing down the total.

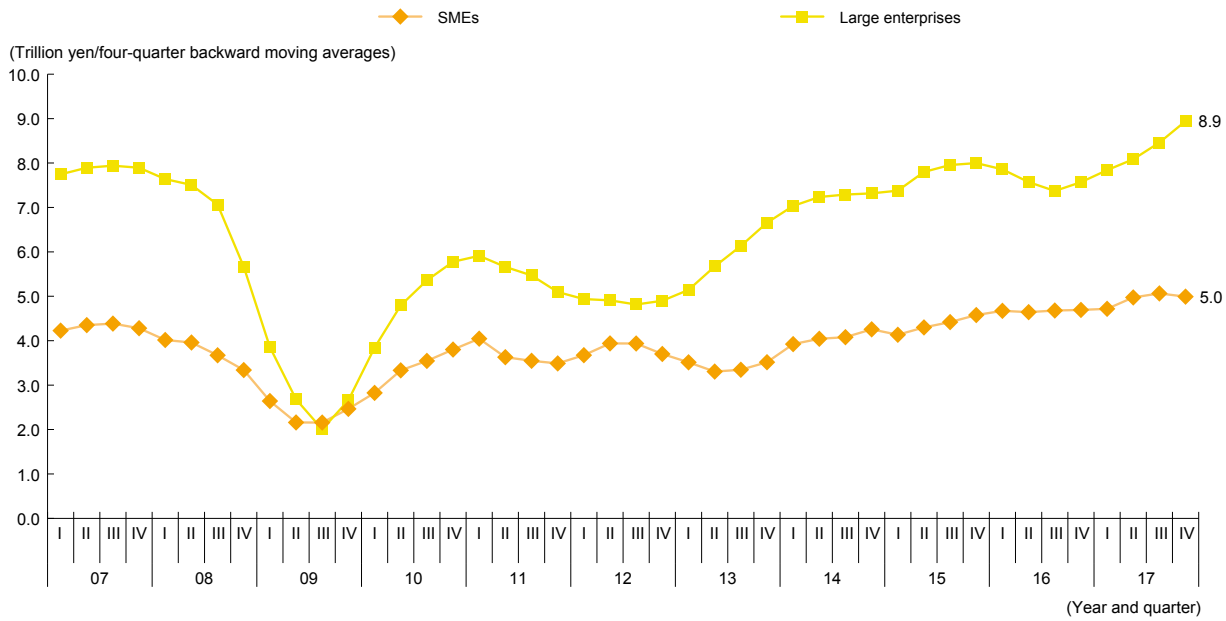
Fig. 1-1-7 Decomposition of sales by industry (increase between 2016 and 2017)



Source: MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly*.
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

Let us look at changes in operating profits. The operating profits of SMEs significantly dropped in 2009 after the Lehman crisis and alternately improved and declined after 2010. In 2014, a gradual recovery took hold, and operating profits increase to practically the same level as during the bubble economy period, indicating that the results of sales activities in the core businesses of SMEs have marked record highs on the whole (Fig. 1-1-8).

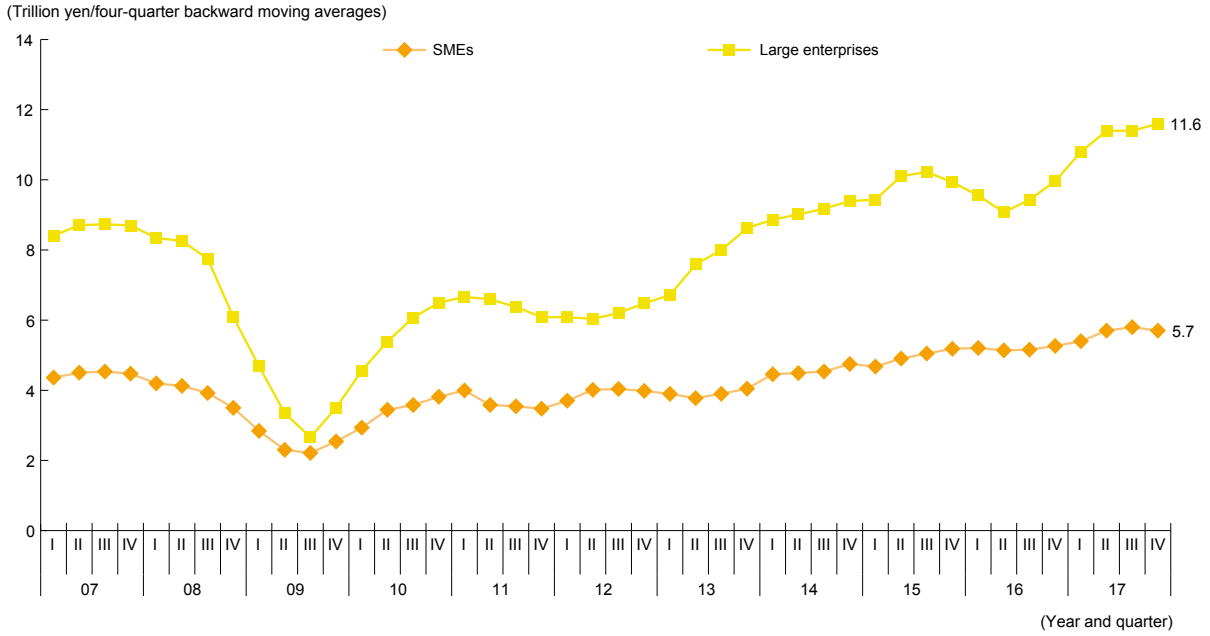
Fig. 1-1-8 Operating profits by enterprise size



Source: MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly*.
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

Meanwhile, the ordinary profits of SMEs marked the largest drop in 2009 after the Lehman crisis but generally shifted to a gradual recovery trend thereafter (Fig. 1-1-9). In 2017, SMEs enjoyed record-high levels of ordinary profits since statistics have been kept, as an indication of the gradual spreading of the positive economic cycle to SMEs as well as large enterprises.

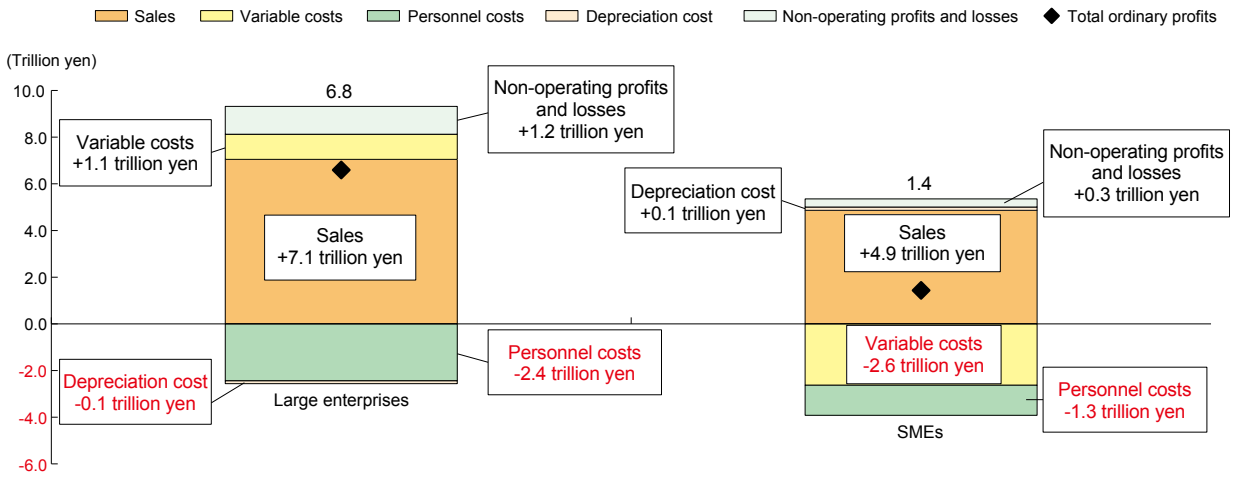
Fig. 1-1-9 Ordinary profits by enterprise size



Source: MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly*.
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

To assess the factors that contributed to increasing ordinary profits, let us break down the increases in ordinary profits by enterprise size (Fig. 1-1-10). When the increases in ordinary profits (difference between ordinary profits in 2017 compared to the previous year) are broken down into such contributing factors as sales, variable costs, personnel costs, depreciation cost and non-operating profits and losses, we see that sales contributed the most to increasing ordinary profits in both large enterprises and SMEs, although the expansion in sales in SMEs was not as strong as large enterprises. At the same time, variable costs made a large negative contribution to ordinary profits in SMEs due to the impact of the rising costs of crude oil and other such raw materials, as will be discussed later.

Fig. 1-1-10 Decomposition analysis of ordinary profits (increase between 2016 and 2017)



Source: MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly.*

Notes: 1. Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

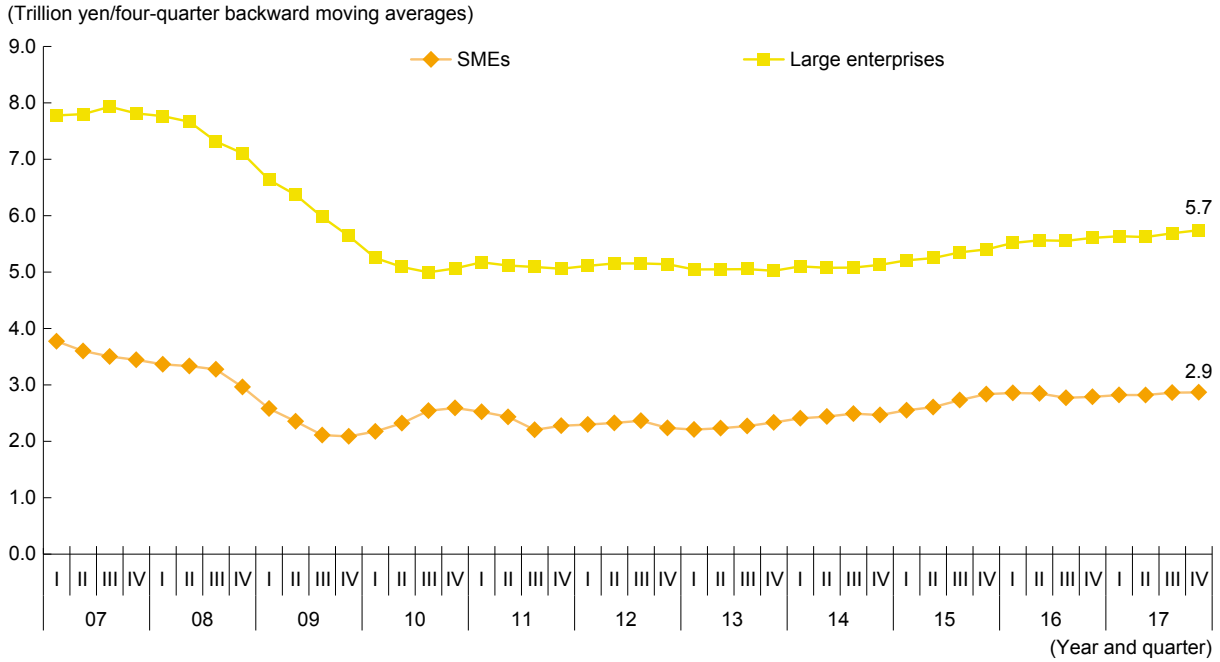
2. The decomposition analysis of ordinary profits was conducted based on the following calculation.
π: Ordinary profits, S: Sales,
F: Fixed costs (personnel costs (P) + non-operating profits and losses (N) + depreciation cost (D)), V: Variable costs
$\pi = S - V - F$, so $\pi = S - S \times V/S - P - N - D$

$$\Delta\pi = \underbrace{(1-V/S)\times\Delta S}_{\text{Sales}} - \underbrace{\Delta(V/S)\times S}_{\text{Variable costs}} - \underbrace{\Delta P}_{\text{Personnel costs}} - \underbrace{\Delta N}_{\text{Non-operating profits and losses}} - \underbrace{\Delta D}_{\text{Depreciation cost}}$$

3. Investments

Contrary to the favorable SME business environment, capital investments by SMEs dropped significantly in 2009 after the Lehman crisis and stagnated for a while before investment amounts began to grow gradually from 2013 (Fig. 1-1-11). However, as will be discussed in detail in Part 2 Chapter 5, the increases in capital investments by SMEs consisted mainly of replacement investments due to the aging of facilities.

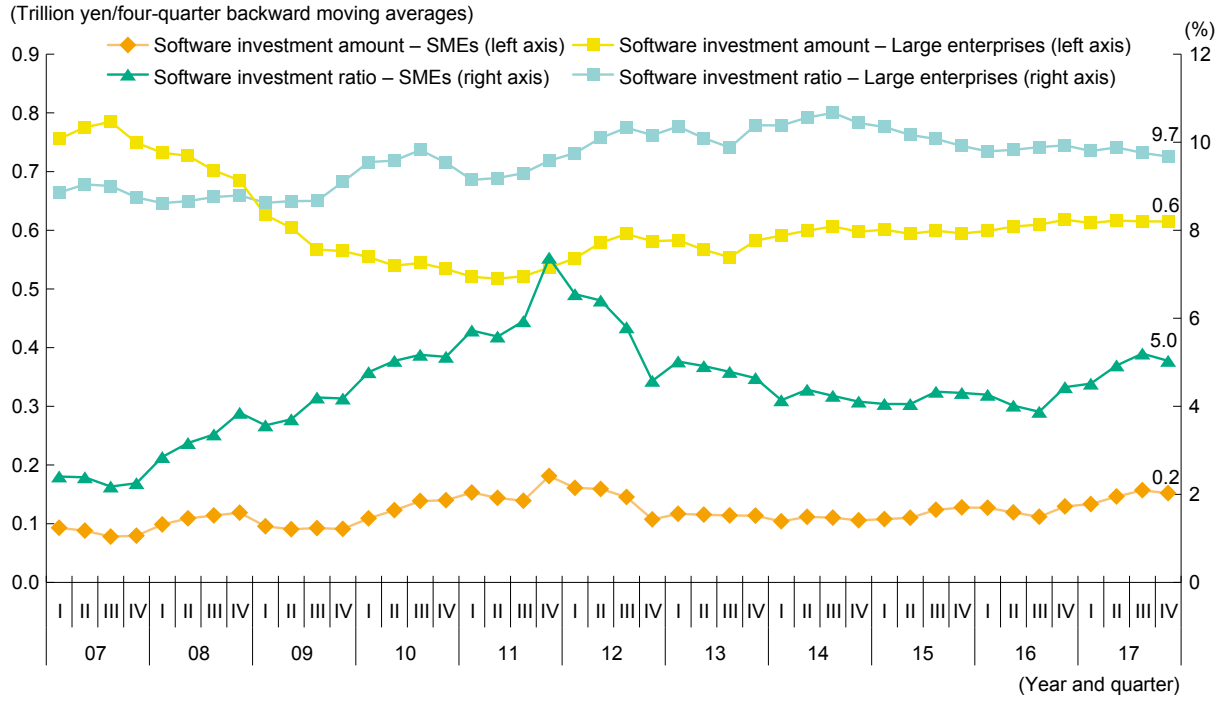
Fig. 1-1-11 Capital investment by enterprise size



Source: MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly.*
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

When we look at software investment amount and ratio of SMEs as IT-related indices, we see that the amount that SMEs invested in software remained unchanged for several years even after 2013 when increases began to appear in capital investments as a whole (excluding software), but gradually increased from the latter half of 2016. Investment ratio also began to increase significantly around this time (Fig. 1-1-12). Nevertheless, software investment amount stood at less than one-third that of large enterprises, and investment ratio was only about half that of large enterprises, indicating the difference that continues to persist with large enterprises.

Fig. 1-1-12 Software investment amount and software investment ratio



Source: MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly.*
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

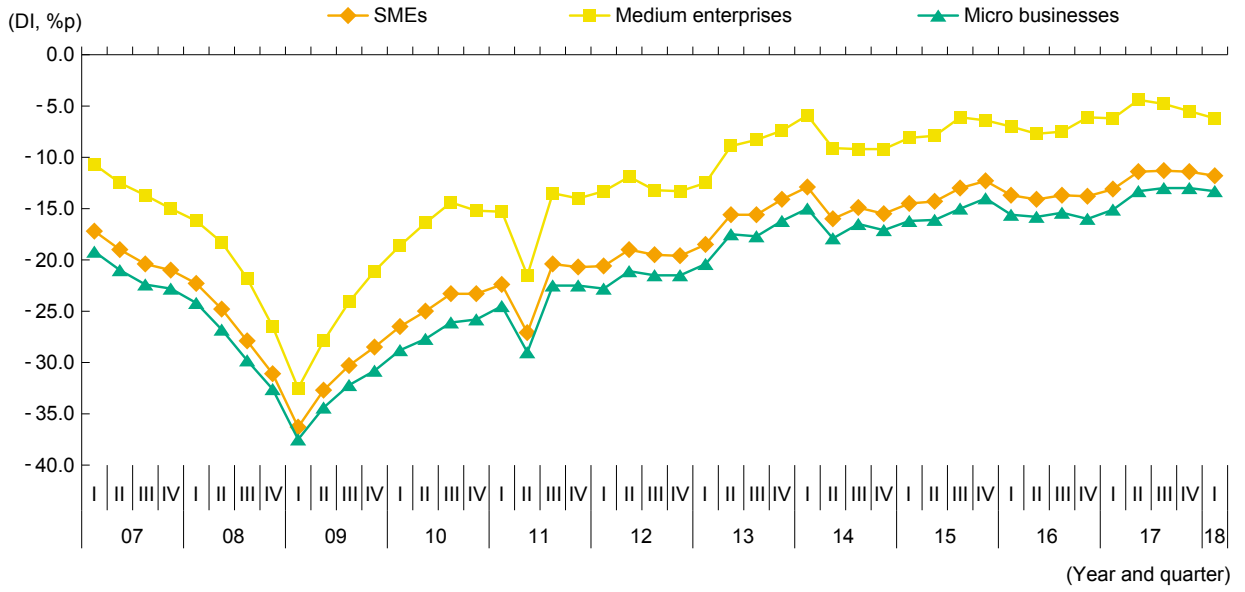
4. Financial status and bankruptcies

Next, let us examine the financial status and status of bankruptcies of SMEs using the Business Conditions Survey, BOJ statistics and the database of Tokyo Shoko Research, Ltd.

First, when we look at the financial position DI of SMEs, we see that both medium enterprises and small enterprises maintained a steady improving trend after hitting bottom in 2009 after the Lehman crisis. In 2017, it surpassed the level in 2007 before the crisis, and marked a record high since statistics have been kept (Fig. 1-1-13).

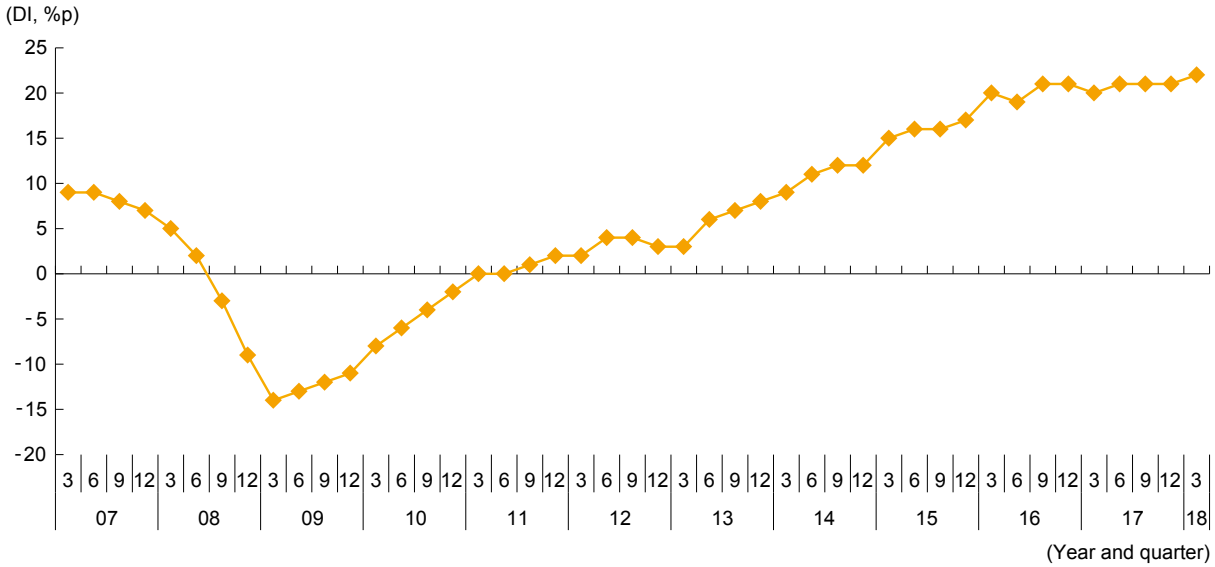
The lending attitude DI similarly dropped significantly after the Lehman crisis but shifted to a general recovery trend after 2009, such that since the third quarter of 2011, the percentage of companies that described the recent lending attitude of financial institutions as "lenient" yearly surpassed the percentage of companies that described it as "severe" (Fig. 1-1-14).

Fig. 1-1-13 Financial position DI by enterprise size



Source: SME Agency and SMRJ, *Survey on SME Business Conditions.*
Notes: 1. The financial position DI of *Survey on SME Business Conditions* is calculated by subtracting the percentage (%) of enterprises that said their financial position has "worsened" from the percentage (%) of enterprises that said it has "improved" compared to the previous quarter.
2. Here, SMEs refer to "small and medium enterprises" as defined in Article 2 Paragraph 1 of the Small and Medium-sized Enterprise Basic Act; micro businesses refer to small enterprises as defined in Article 2 Paragraph 5 of the Small and Medium-sized Enterprise Basic Act; and medium enterprises refer to enterprises among SMEs that are not micro businesses.

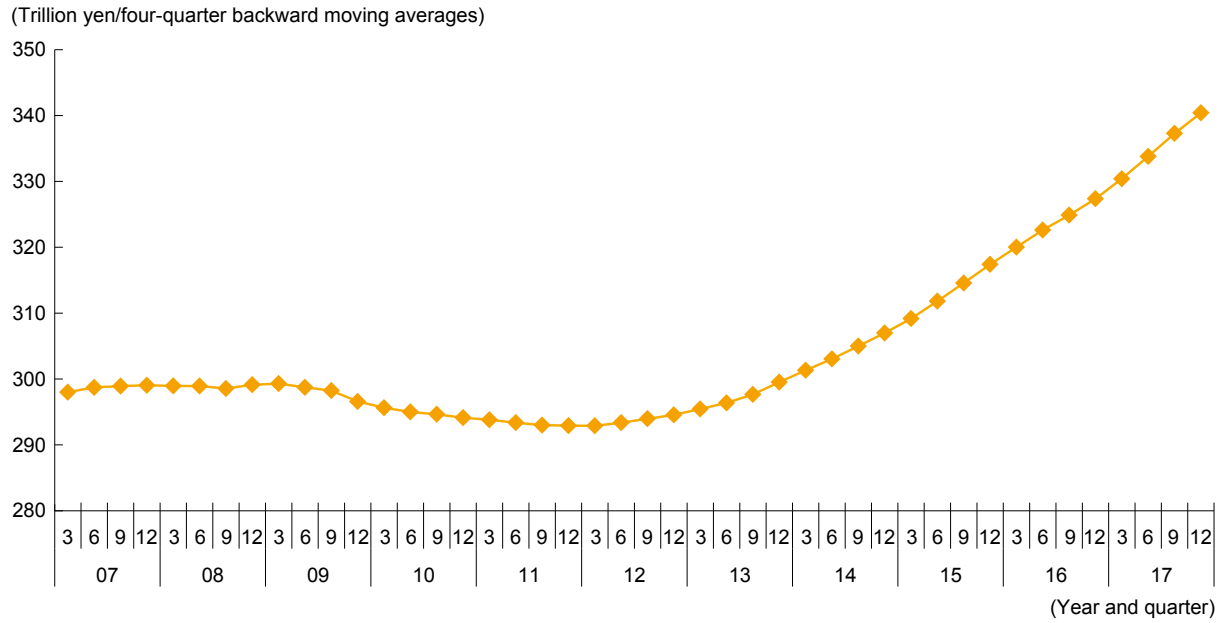
Fig. 1-1-14 Lending attitude DI among SMEs



Source: BOJ, *Short-Term Economic Survey of Enterprises in Japan* (BOJ Tankan).
Notes: 1. The lending attitude DI in the BOJ Tankan is calculated as the percentage of companies that described the recent lending attitude of financial institutions as "lenient" minus the percentage of companies that described it as "severe."
2. In the BOJ Tankan, SMEs refer to enterprises with a capital of ¥20 million or more and less than ¥100 million.

Next, when we examine lending to SMEs, we see that it trended on a weak tone until 2011 but continued to increase from 2012, such that it is now hovering at a record high level since statistics have been kept (Fig. 1-1-15).

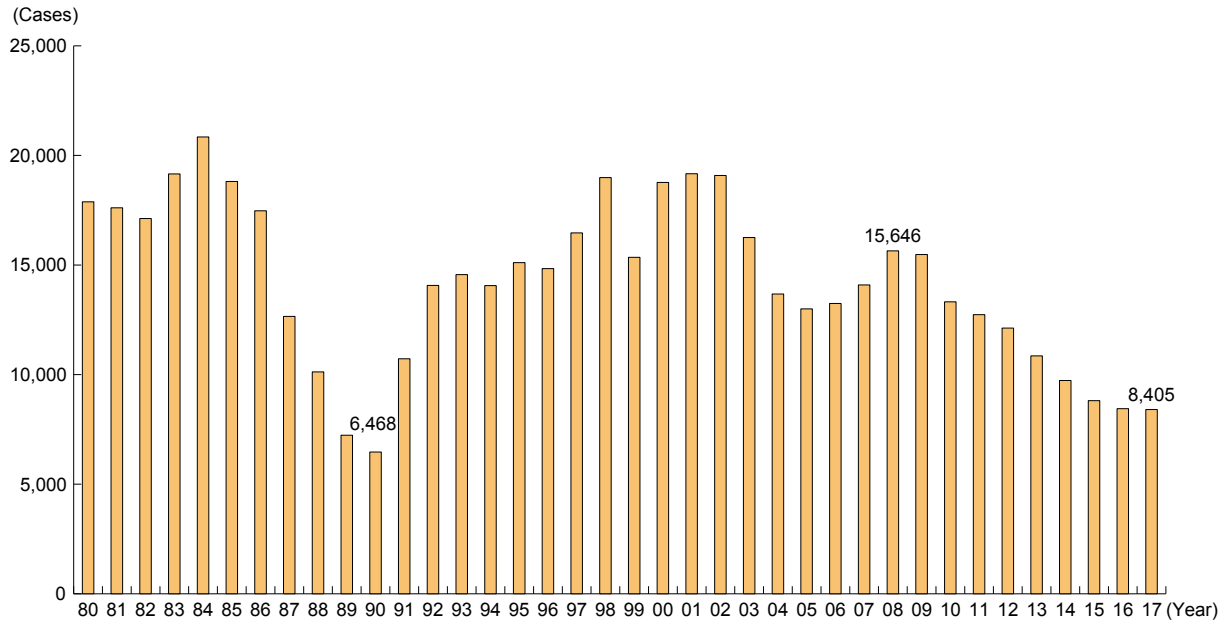
Fig. 1-1-15 Lending to SMEs



Source: BOJ, *Loans and Bills Discounted by Sector*.

The number of bankruptcies continued to decrease for nine years running after peaking at 15,646 in 2008, and it has remained below the 10,000 mark for four consecutive years. In 2017, there were 8,405 cases of bankruptcies corresponding to a 0.4% decrease compared to the previous year and the lowest level in 27 years since the 1990 bubble economy period (Fig. 1-1-16).

Fig. 1-1-16 Number of bankruptcies



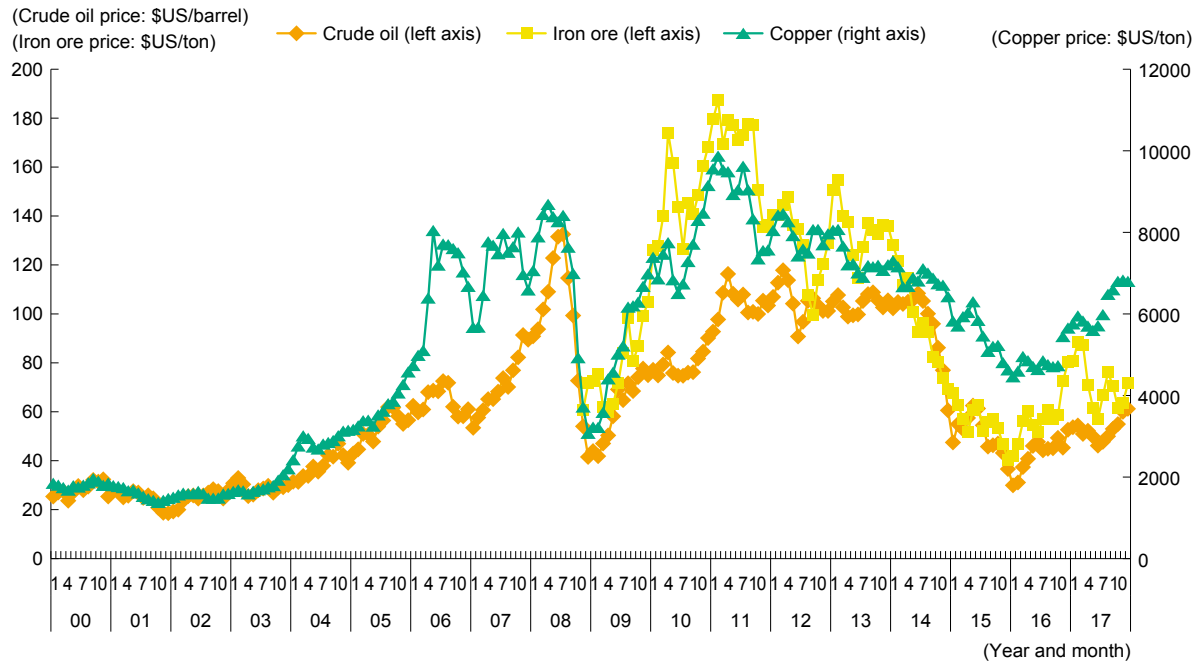
Source: Tokyo Shoko Research, Ltd., *Business Failure News (Monthly)*.

5. Transaction environment

As we have seen so far, the ordinary profits of SMEs reached a record high level. Yet, when broken down into contributing factors, there is clearly a significant difference in the way variable costs are handled between large enterprises and SMEs.

Variable costs include the costs of raw materials and fuel and the cost of purchasing intermediate goods, and are largely influenced by changes in the prices of primary commodities that are the raw materials. Trends in the prices of primary commodities, and particularly the prices of resources, show that the prices of crude oil have continued on a rising trend since reversing the previous trend in 2016, and that the prices of iron ore and copper are also on the increase (Fig. 1-1-17).

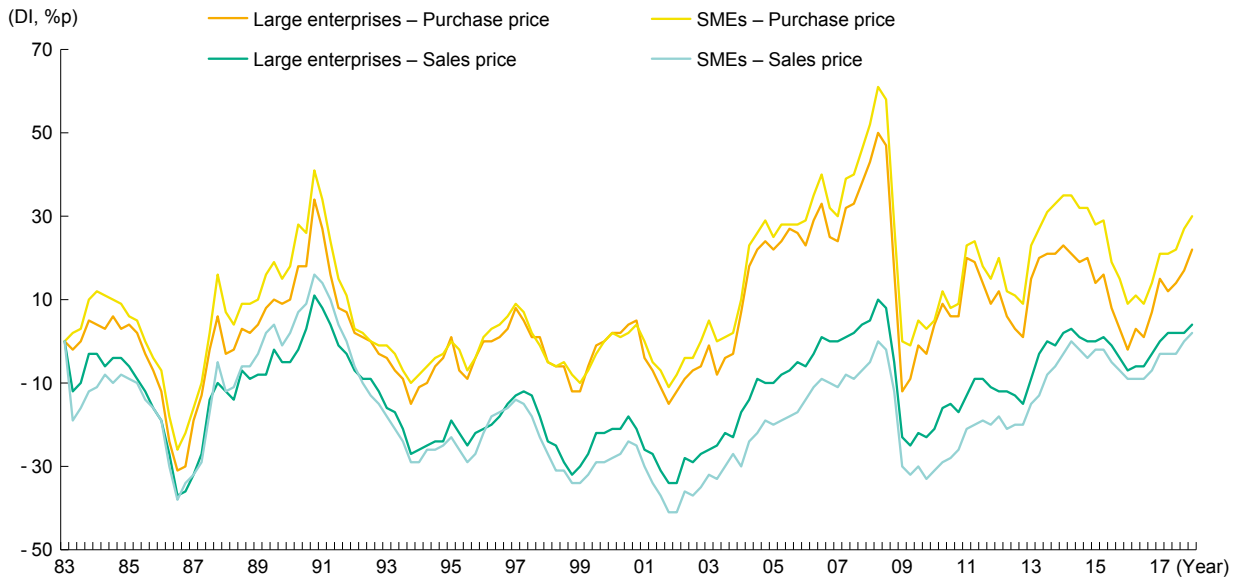
Fig. 1-1-17 Prices of primary commodities



Source: UNCTAD, *Commodity Price Bulletin.*

Next, trends in the purchase price DI and sales price DI by enterprise size show that the purchase price DI improved from 2016 on the back of the rising prices of crude oil and other resources and continued to improve after 2017. The sales price DI also marked an improving trend, but the rate of increase falls short of the purchase price DI (Fig. 1-1-18).

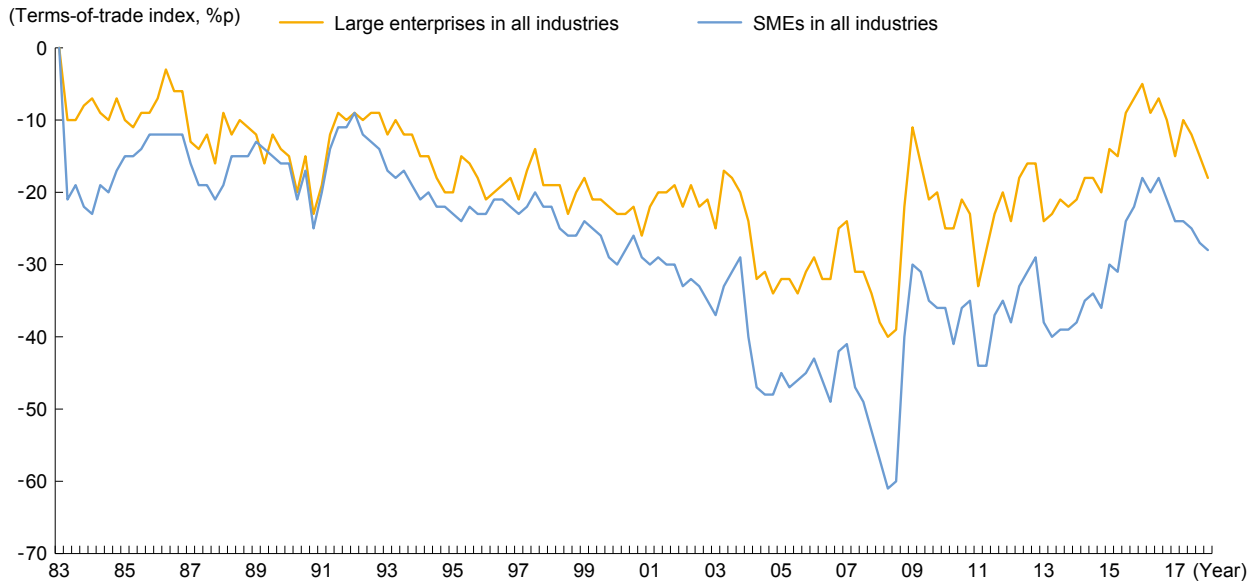
Fig. 1-1-18 Purchase price DI and sales price DI by enterprise size



Source: BOJ, *Short-Term Economic Survey of Enterprises in Japan* (BOJ Tankan).
Notes:
1. Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥20 million or more and less than ¥100 million.
2. Purchase price DI equals the ratio of respondent enterprises that say the purchase price of major raw materials or major products have "risen" compared to the previous quarter, minus the ratio of those that say it has "dropped."
3. Sales price DI equals the ratio of respondent enterprises that say the sales price of major products or services have "risen" compared to the previous quarter, minus the ratio of those that say it has "dropped."

With regard to the terms-of-trade index, which is obtained by subtracting purchase price DI from sales price DI, an improving trend was generally seen after the Lehman crisis. However, as discussed earlier, the purchase price DI increased at a greater rate than the sales price DI, so the terms-of-trade index dropped among both large enterprises and SMEs (Fig. 1-1-19). As the earning power of SMEs is significantly affected by whether they can properly pass on the increase in purchase prices to sales prices, measures are sought that would promote an improvement in the earning power of SMEs.

Fig. 1-1-19 Terms-of-trade index (by enterprise size)



Source: BOJ, *Short-Term Economic Survey of Enterprises in Japan* (BOJ Tankan).
Notes: 1. Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥20 million or more and less than ¥100 million.
2. "Terms-of-trade index" equals the sales price DI minus purchase price DI.

Column 1-1-1 Further dissemination of measures based on the Seko Plan

In September 2016, Minister Seko of the Ministry of Economy, Trade and Industry (METI) released the "Basic Policies for Future-oriented Trade Practices" (Seko Plan) as a package of measures for improving transaction conditions, and various initiatives have also been taken in 2017 under this plan. This column will introduce the initiatives that have been taken mainly in 2017.

Interviews of subcontractor SMEs by "subcontract G-men" (April 2017 –)

In April 2017, some 80 "subcontract G-men" were newly assigned nationwide and interviewed more than 2,800 subcontractor SMEs (as of February 2018; interviews were begun in advance in January 2017). These direct interviews by subcontract G-men play an important role in ascertaining transaction issues that would not normally come to light in written surveys and telephone surveys.

Follow-up survey by organizations that have formulated a voluntary action plan (September – November 2017)

To disseminate initiatives related to the Seko Plan, 21 organizations in 8 industries, including the automobile, machine parts and tooling, construction machinery, textiles, information and communication electronic equipment, information services and software, construction, and motor trucking industries, formulated and announced voluntary actions plans for promoting fair trade and enhancing added values.

From September to November 2017, 18 organizations in 6 industries under the jurisdiction of METI took the initiative to conduct a follow-up survey on the status of implementation of their voluntary action plans. They sent a survey form to some 7,000 companies affiliated with each organization and acquired responses from 1,752 companies (25.4% response rate).

Announcement of the results of the follow-up survey of the voluntary action plan and interviews by subcontract G-men (December 2017)

The SME Agency compiled the results of the follow-up survey conducted by industrial organizations and the results of the interviews undertaken by subcontract G-men and announced the findings in December 2017. A comparison of the results of the two surveys revealed that steady achievements have begun to appear mainly in the automobile industry, as can be seen in the comments that "payments which used to be received by promissory notes are now received in cash" and that "there are no longer one-sided requests for discounts." At the same time, however, improvements appeared to lag in some industries, so Minister Seko urged top figures in these industries to promote further initiatives.

This undertaking requires tenacious efforts in implementing the PDCA cycle until results emerge.

(Main points of the results of t he follow-up survey of voluntary action plans)

- The automobile and automotive parts industries spearheaded the dissemination of active initiatives in response to the three priority issues of the Seko Plan ((1) cost reduction request, (2) mold management and (3) payment conditions).
- Particularly with respect to payment conditions, 8 assembled car manufacturers switched to 100% payments by cash, and automotive parts companies (tiers 1 – 2) and machine parts and tooling companies (tiers 1 – 4) also responded that cash transactions are gradually spreading in their industries (22% and 14% receipts by cash, respectively). (*)
  - * In the survey, the cash receiving ratio of automotive parts companies was lower than the cash payment ratio of assembled car manufacturers. This is thought to be because promissory notes continued to be used in transactions with large enterprises that do not fall under transactions defined in the Subcontract Act.
- Initiatives for improvement have also been launched in the construction machinery, information and communication electronics equipment, and textiles industries, but 100% cash payments by large enterprises that place orders still stand at a low rate of 10 to 30%. Compared to the automobile industry, promissory notes are still being used at a high rate.

(Main points of the results of interviews conducted by subcontract G-men)

The results of interviews held at 2,040 companies up to the end of October 2017 were analyzed as follows.

- Case examples of specific improvements in three priority issues were verified at 517 companies, corresponding to 25% of all companies(*). More than 300 cases and the most conspicuous were improvements in payment conditions, such as the switch from payment by promissory note to cash, and 100 cases or so each were initiatives for cost reduction and mold management.
- However, the following situations came to light when these interview results were compared to the results of the follow-up survey of voluntary action plans.
  (1) With respect to cost reduction requests, there were cases where companies continued to make such requests by word of mouth.
  (2) Some cases of improvement in mold management were observed, but it cannot be said that the improvement has spread to tiers below tier 2.
  (3) The shift from payment by promissory note to cash is gradually spreading to a certain portion of tier 3 and 4 companies, but it has yet to become more widely disseminated. Furthermore, initiatives in industries other than the automobile industry are lagging compared to the automobile industry.
  (4) Many companies seek an improvement in payment conditions, as many of their parent companies continue to make payments for molds in 24 to 36 installments or as an addition to the cost of components.

* This is the ratio of case examples in which specific improvements were seen. It does not mean that the remaining 75% represent inappropriate transactions. (The results of interviews include companies responding that "there have never been any transaction problems," "payments have always been received in cash," etc.)

Strengthening of initiatives for optimized management and disposal of molds

From January 2017, the "Study Group for Future-oriented Trade Practices Involving Mold Management (Storage, Disposal, etc.)" (chaired by Mr. Koichi Hosoda, professor of the Faculty of Law, Kanagawa University, and composed of representative members from the Japan Automobile Manufacturers Association, Inc., Japan Auto Parts Industries Association and companies in the machine parts and tooling industry) was held with the aim of further optimizing the management of molds that are necessary for manufacturing parts and other components, toward the realization of a fair trade environment for the automobile industry and the machine parts and tooling industry. In July 2017, the study group compiled and presented a report titled "Three Future-oriented Actions for Mold Management: Reduce Molds, Revise Management and Establish New Systems (Action Plan for Enhancing Proper Future-oriented Mold Management)."

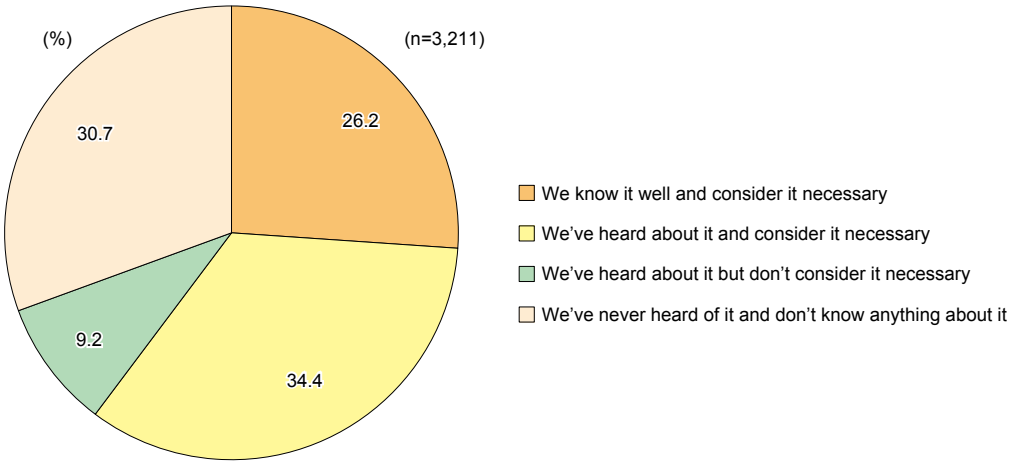
<April/May issue of METI Journal, featuring molds on the cover>

Column 1-1-2 Strengthening SME disaster response)

Many natural disasters have struck Japan even after the Great East Japan Earthquake. These include the Kumamoto Earthquake, numerous flood disasters, and the Northern Kyushu Flood in FY2017.

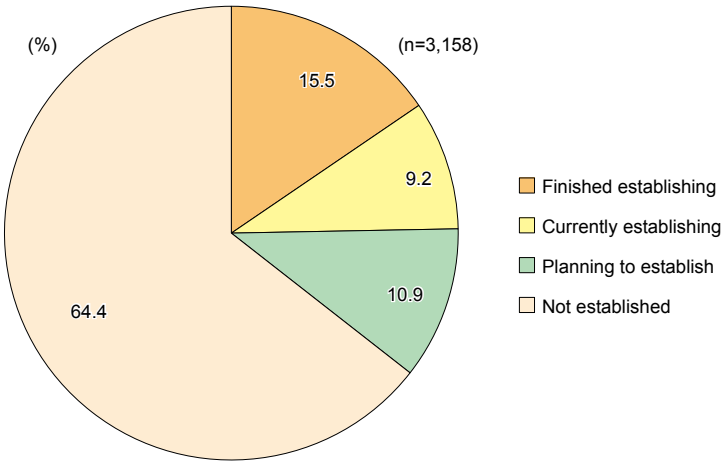
In a country where natural disasters occur frequently, it is important for SMEs to prepare against disasters in advance. However, approximately 30% of SMEs do not have knowledge about BCP (business continuity plan) (Fig. Column 1-1-2 (1)) and only 15% have formulated a BCP (Fig. Column 1-1-2 (2)). Therefore, it is difficult to say that SMEs are sufficiently prepared against disasters.

Fig. Column 1-1-2 (1) BCP recognition at SMEs



Source: Mizuho Research Institute, Ltd., *Survey on Risk Management Initiatives at SMEs* (December 2015).

Fig. Column 1-1-2 (2) State of BCP establishment at SMEs



Source: Mizuho Research Institute, Ltd., *Survey on Risk Management Initiatives at SMEs* (December 2015).

Support has always been provided to disaster-affected SMEs in accordance with the magnitude and impacts of the disaster, but there are debates about whether such support is appropriate and whether it has been provided appropriately from the regional and policy perspectives.

Study Group for Enhancement of SME Disaster Response

In response to the above situation, the SME Agency organized the Study Group for Enhancement of SME Disaster Response in December 2017. The study group was convened four times, and the discussions were compiled into an interim report in March 2018. An overview of the report is introduced below.

Preliminary measures for SMEs

In consideration of the inadequate state of preliminary disaster countermeasures among SMEs, focus was placed on strengthening initiatives for BCP dissemination through the following initiatives.

(1) Dissemination of initiatives based on an understanding of the essential concept of BCP
There are SMEs that practically engage in outstanding BCP initiatives as an extension of their ordinary management practices, but just not in the form of a BCP (Fig. Column 1-1-2 (3)). Such cases will be collected to disseminate BCPs that SMEs can undertake relatively easily.

(2) Incentives for BCP promotion
To disseminate BCPs, it is also necessary to provide incentives, such as for preferential selection under a subsidy system, etc.

(3) Broad initiatives that involve entire supply chains and regions
The key to spreading BCP initiatives to a large number of SMEs lies in supply chains and local networks such as industrial clusters and industrial parks. These networks will be utilized to promote policies such as for dispatching experts.

(4) Promotion of relocations to higher ground
To promote the relocation of SMEs to higher ground on the occasion of a large-scale expansion of facilities or other such occasions, it is necessary to consider relaxing the requirements for public financial support and adopting a system of preferential selection for capital investment support.

(5) Further dissemination of damage insurance and mutual aid
Given the environment where relative low-cost insurance plans have begun to appear for flood damage, it is necessary to promote an understanding of insurance and mutual aid among SMEs in cooperation with support organizations.

Fig. Column 1-1-2 (3) Initiatives similar to BCP

(Initiatives of a gas maintenance company)
- No BCP has been formulated in the conventional sense.
- Twice a year, a meeting is held with all employees to discuss the company's course of actions in the event of a disaster. The results of the discussion are written out on a large poster paper and posted on the wall in the office.
- Preliminary measures for ensuring the efficient execution of the actions are discussed by all employees and are executed by the planned date of completion that has been decided on.
- At the end of the year, the president verifies whether the preliminary measures have been taken.
- The only documents that are created are a list of actions ("to do" list), a list of issues to solve ("to do in advance" list) and an emergency contact list. Everything else are memos taken by employees in charge.

Support to disaster-affected SMEs

With a firm grasp of the present state of support to disaster-affected SMEs, the following points will be reviewed for future measures.

(1) The role of government and its relationship with the regions at times of disaster
With regard to providing support to disaster-affected SMEs, it is necessary to review the relationship between the central government and local governments, and their respective roles.

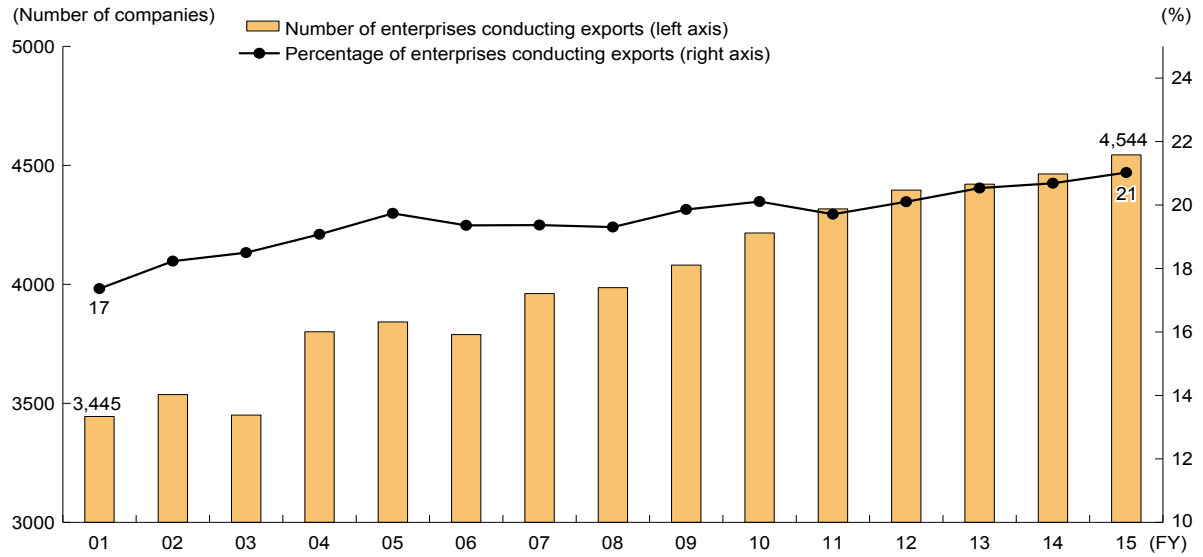
(2) Region-specific support
In local major disasters, support is restricted to SMEs that suffer damage in designated regions only. However, regardless of boundaries or municipalities, if there are businesses that are affected by a disaster, it is necessary to consider whether support is required and to review the roles of central and local governments.

(3) Stable support through subsidies to disaster-affected SMEs
SMEs that suffer damage in a natural disaster are offered individual subsidies under the relevant fiscal budget as an exceptional measure within the possible scope and timing, but it is necessary to examine possible measures that would ensure the continuation of expeditious responses.

6. Overseas expansion

As mentioned at the beginning of this chapter, it could be said that Japan's real GDP growth in 2017 was driven by the strong performance of exports. Therefore, in this section, let us examine the status of overseas expansion by SMEs. According to METI's *Basic Survey of Japanese Business Structure and Activities*, the number of companies that engage in exports among all SMEs has generally increased since 2004, and as many as 4,544 companies engaged in exports in 2015 (Fig. 1-1-20). The ratio of exporting companies also showed a gradual increase and reached 20% in 2015[3].

Fig. 1-1-20 Number and percentage of enterprises conducting exports

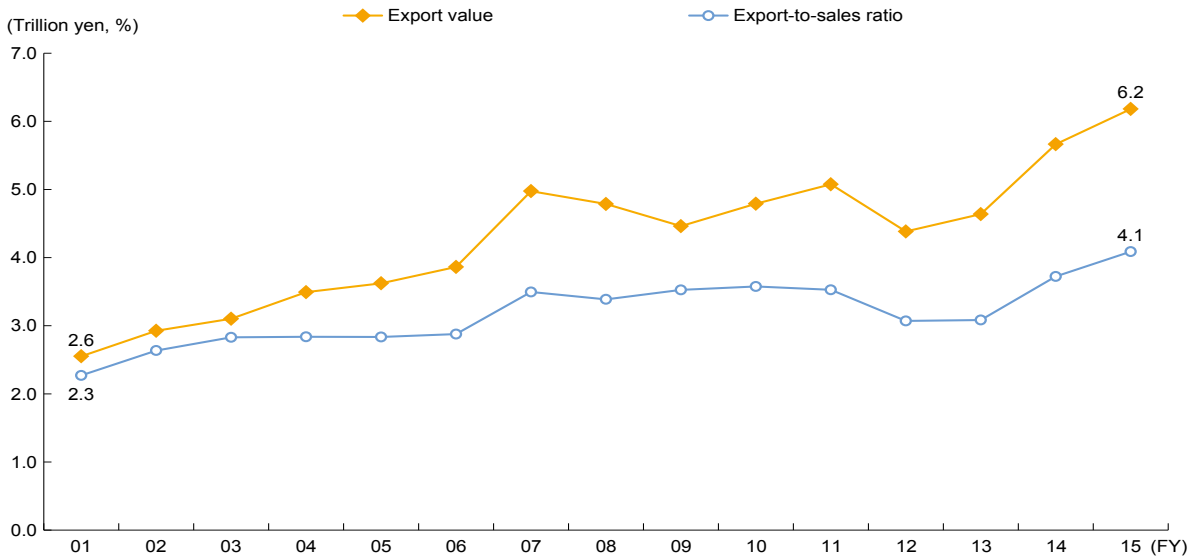


Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*

Next, when we look at the export value and export-to-sales ratio of SMEs, we see that both yearly increased (Fig. 1-1-21). Export was ¥2.6 trillion at the beginning of FY2001 but increased almost 2.5-fold to ¥6.2 trillion in FY2015. Similarly, export-to-sales ratio was 2.3% at the beginning of FY2001 but increased to 4.1% in FY2015.

3) This survey covers companies with 50 or more workers and a capital or investment of at least ¥30 million. Thus, the results represent the situation of relatively large companies among SMEs as defined in the Small and Medium-sized Enterprise Basic Act. For this reason, the ratio or exporting companies may be higher than when compared to the ratio that also includes small enterprises.

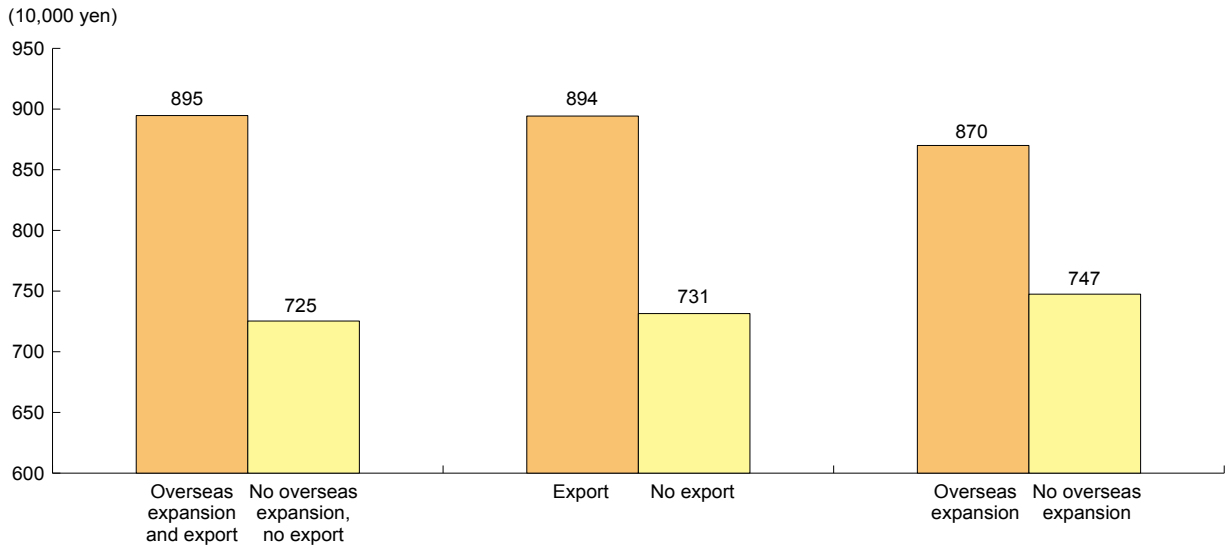
Fig. 1-1-21 Export value and export-to-sales ratio at SMEs



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*

Now let us compare labor productivity between SMEs that have achieved overseas expansion and those that have not, and between SMEs that engage in export and those that do not. When defining overseas expansion enterprises as those having at least one subsidiary or affiliate overseas, a clear trend is observed in which labor productivity is higher among enterprises that have achieved overseas expansion than those that have not, and also higher among enterprises that engage in export than those do not (Fig. 1-1-22).

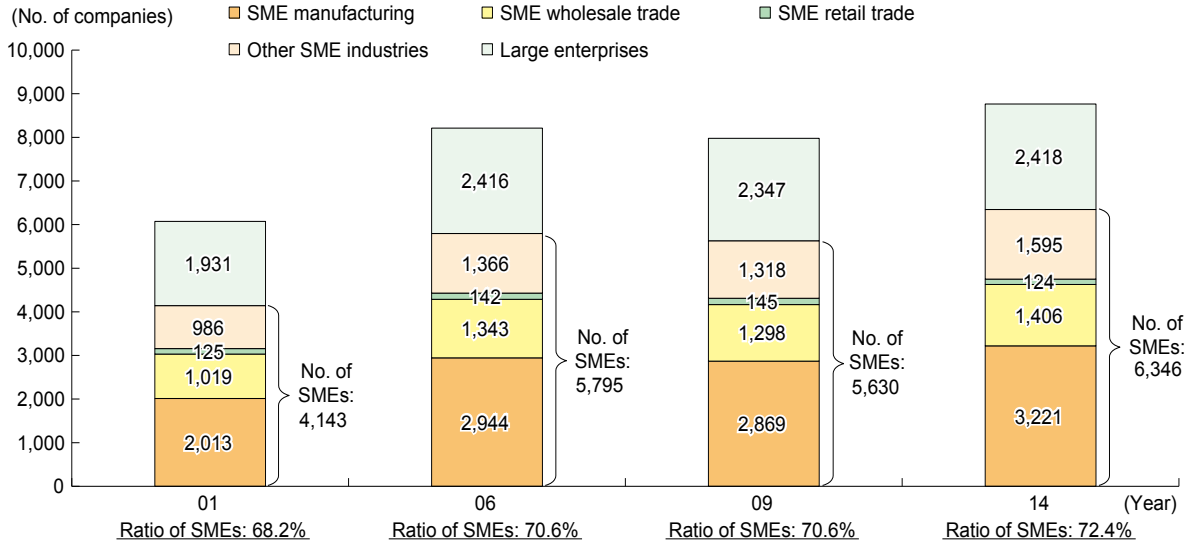
Fig. 1-1-22 Comparison of productivity between enterprises that have/have not achieved overseas expansion and between enterprises that engage/do not engage in export



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities 2016*.
Notes:
1. Labor productivity here refers to added value in FY2015 per regular employee.
2. Enterprises that have achieved overseas expansion are defined as those having at least one subsidiary or affiliate overseas.
3. Enterprises that engage in exports even to a small extent are considered to engage in exports.

Let us also examine the number of enterprises that make direct investments, by enterprise size and industry (Fig. 1-1-23). The total number of direct investment enterprises generally showed an increasing trend, when excluding the temporary decrease seen in 2009 after the Lehman crisis. Of this total, 4,143 were SMEs in 2001, corresponding to 68.2%, but by 2014, these figures have increased to 6,346 SMEs, accounting for 72.4% of the total.

Fig. 1-1-23 Number of direct investment enterprises by enterprise size and industry



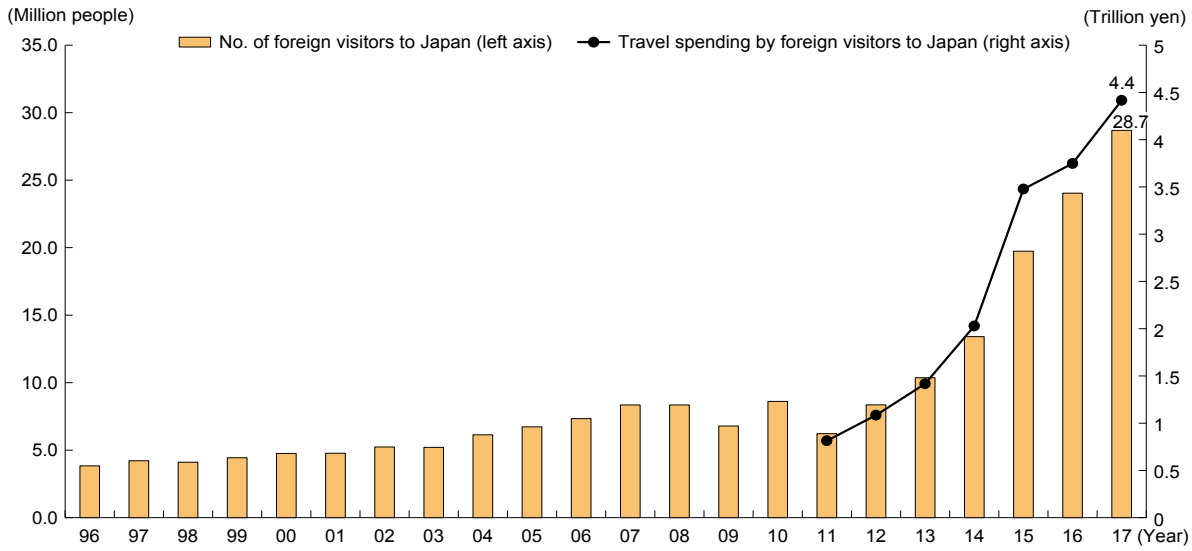
Sources: Recompiled from MIC, *FY2001, 2006 Establishment and Enterprise Census* and *FY2009, FY2014 Economic Census for Business Frame*.

Notes: 1. Direct investment enterprises here refer to enterprises (not including individual proprietorships) having a subsidiary overseas (company in which the relevant enterprise possesses more than 50% of voting rights; including cases where the subsidiary or the parent enterprise and subsidiary combined possess more than 50% of voting rights and where they possess less than 50% but are included in the consolidated financial statements).

2. Large enterprises here refer to enterprises other than SMEs as defined in the Small and Medium-sized Enterprise Basic Act.

Next, to see how well SMEs are capturing overseas demand, let us examine the number of foreign visitors to Japan in reference to *Trends in the number of foreign visitors to Japan* announced by the Japan National Tourist Organization (JNTO) for statistics on the number of foreign visitors to Japan and the *Survey on consumption trends among foreign visitors to Japan* presented by the Japan Tourism Agency for statistics on inbound consumption (Fig. 1-1-24). From the 1990s to the beginning of the 2000s, the number of foreign visitors to Japan has hovered at around the 4 million to 5 million level. In 2011, it temporarily dropped due to the impact of the Great East Japan Earthquake, but thereafter increased at a higher rate than before and surged to 29 million in 2017, corresponding to a six-fold increase from twenty years ago. Travel spending by foreign visitors to Japan also increased steadily year by year, such that the amount spent in 2017 corresponded to a five-fold increase from 2011.

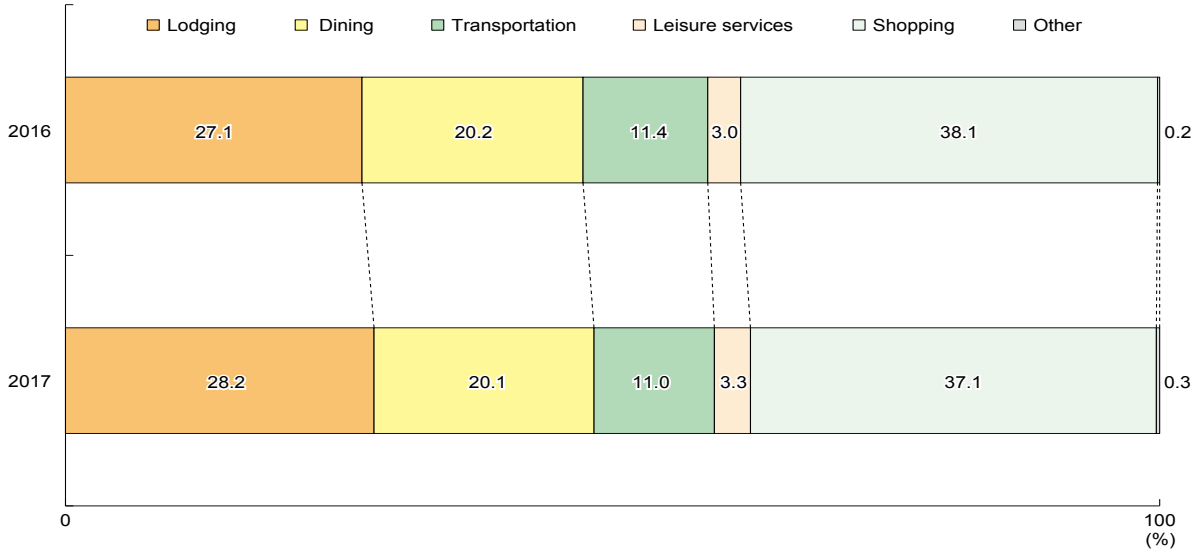
Fig. 1-1-24 Number and travel spending of foreign visitors to Japan



Sources: Japan National Tourist Organization, *Trends in the number of foreign visitors to Japan*; Japan Tourism Agency, *Survey on consumption trends among foreign visitors to Japan*.

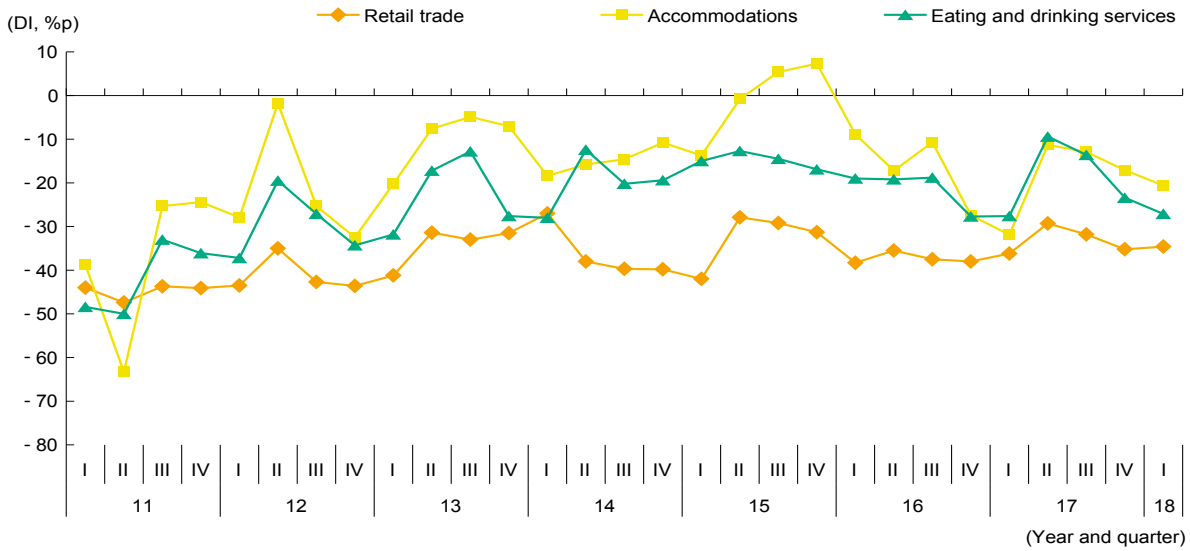
A breakdown of the amount of travel spending by foreign visitors to Japan shows that a little below 40% and the largest amount was spent on shopping, followed by lodging and dining (Fig. 1-1-25). At the same time, the sales DI of the SME retail trade, accommodations and dining industries shows a gradual increase from 2011, the year when foreign visitors to Japan began to increase to 2017. This is suggestive of the success of SMEs in capturing overseas demand (Fig. 1-1-26)

Fig. 1-1-25 Composition of travel spending by foreign visitors to Japan



Source: Japan Tourism Agency, *Survey on consumption trends among foreign visitors to Japan* (released Jan. 16, 2018).

Fig. 1-1-26 Sales DI of SME retail trade, accommodations and dining industries



Source: SME Agency and SMRJ, *Survey on SME Business Conditions*.
Note: The sales DI in the survey is calculated as the percentage (%) of enterprises that said their sales "increased" compared to the same quarter in the previous year minus the percentage (%) that said their sales "decreased."

Section 3 Summary

Japan's economy in fiscal 2017 continued on a gradual recovery trend from the end of 2012, and a positive economic cycle has begun to set in, with ordinary profits marking record high levels and the number of bankruptcies decreasing for nine years running owing to a general improvement in the business conditions of SMEs and the increasing pattern of their sales.

At the same time, however, issues have also appeared in widely spreading the benefits of the positive economic cycle. For example, differences were seen in the business conditions of SMEs according to industry or region, capital investment lacked strength due to a sense of uncertainty about the future economy in contrast to the favorable earning environment, and SMEs have not acquired sufficient earning power to smoothly pass on costs. For the further development of SMEs in the future, efforts will need to be made to address and overcome these issues.

Chapter 2

Structural analysis of SMEs

Section 1 Changes in number of enterprises, trends in market entries and exits

As of 2014, Japan had about 3.81 million SMEs, accounting for 99.7% of all enterprises in the nation. SMEs also had about 33.61 million workers, thereby creating about 70% of all jobs in Japan. A close look at the SMEs that are a mainstay of the Japanese economy shows that they are engaged in a diverse range of businesses and should not be understood as a homogeneous group. However, this section will try to describe the typical Japanese SME in terms of per-company number of employees, net sales, profits, and the like. Data on about 1.29 million companies is collected in the CRD (Credit Risk Database) managed by the CRD Association. Looking at median values from the CRD, a typical SME has three employees, sales of ¥67.9 million, ordinary profits of ¥1.6 million, total assets of ¥54.2 million, and capital of ¥5.1 million, as shown in the table below. Thus, the typical SME in Japan is rather small.

Addressing such SMEs, this section looks at trends in the number of enterprises and trends in entry and exit rates.

Fig. 1-2-1 Image of Japan's SMEs, as seen from CRD (2015 accounting period) (corporations and sole proprietorships)

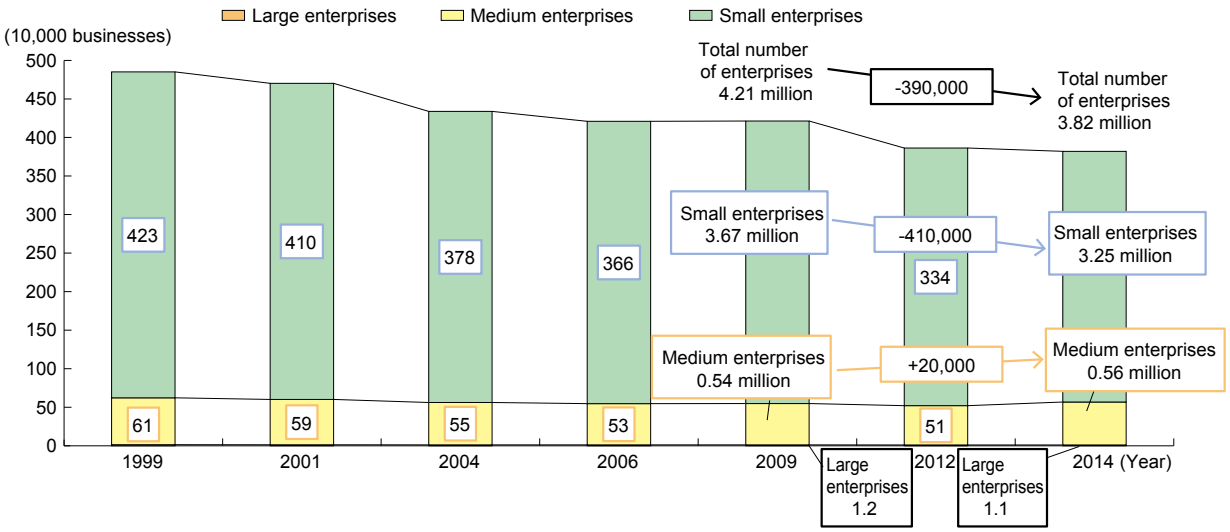
	Number of SMEs		Median value					Average value				
		Percent of total (%)	Number of employees	Sales (million yen)	Ordinary profits (million yen)	Total assets (million yen)	Capital (million yen)	Number of employees	Sales (million yen)	Ordinary profits (million yen)	Total assets (million yen)	Capital (million yen)
Agriculture and forestry	6,712	0.5%	4.0	52.0	1.9	56.0	3.1	16.4	270.9	11.3	387.5	14.2
Fisheries	1,123	0.1%	5.0	124.3	2.6	148.9	5.0	12.7	452.5	10.9	510.8	14.9
Mining and quarrying of stone and gravel	1,203	0.1%	8.0	177.4	2.3	226.1	10.0	15.2	653.2	32.9	995.9	49.6
Construction	276,651	21.5%	3.0	68.0	2.0	39.4	5.0	7.7	226.6	8.0	178.1	9.9
Manufacturing	189,181	14.7%	7.0	100.1	2.1	91.9	10.0	23.3	634.3	23.5	669.3	25.9
Electricity, gas, heat supply and water	2,971	0.2%	1.0	30.7	0.6	74.2	5.0	9.6	690.0	26.3	1,137.3	83.1
Information and communications	25,774	2.0%	5.0	80.6	1.1	44.0	10.0	19.1	362.6	14.4	324.9	32.9
Transport and postal services	46,475	3.6%	13.0	172.0	2.1	105.3	10.0	34.4	546.7	16.6	536.1	21.8
Wholesale trade	137,854	10.7%	4.0	175.5	1.3	100.1	10.0	13.0	914.5	15.7	535.7	16.7
Retail trade	157,813	12.3%	2.0	68.3	0.7	38.0	4.1	9.8	326.6	5.7	200.8	7.9
Real estate and goods rental and leasing	119,596	9.3%	1.0	28.1	2.3	133.4	8.0	4.4	228.6	19.5	719.2	24.6
Scientific research, professional and technical services	50,501	3.9%	2.0	37.2	1.7	25.3	5.0	9.2	145.8	7.0	162.2	12.6
Accommodations, eating and drinking services	76,618	6.0%	2.0	33.5	1.1	23.7	3.0	12.9	141.2	4.8	156.5	7.5
Living-related and personal services and amusement services	37,622	2.9%	2.0	28.7	1.2	24.9	3.0	12.4	388.2	11.1	312.7	10.5
Education, learning support	9,354	0.7%	4.0	39.1	0.8	29.2	4.5	23.4	301.3	14.8	744.4	98.8
Medical, health care and welfare health services	53,516	4.2%	7.0	65.4	3.1	56.7	4.4	28.7	267.0	11.5	364.5	14.9
Services (n.e.c.)	93,535	7.3%	4.0	58.7	1.2	36.9	5.0	17.4	222.5	8.1	261.0	13.8
Total	1,286,499	100.0%	3.0	67.9	1.6	54.2	5.1	14.0	387.3	12.5	385.6	16.5

Source: CRD Association

1. Trends in number of enterprises

First, a look at changes in the number of enterprises in Japan shows a year-to-year declining trend, with the number falling by about 390,000 between 2009 and 2014 (Fig. 1-2-2). Breaking the data down by scale of business, medium enterprises[1] increased in number by about 20,000 but large enterprises declined by about 800 and small enterprises by about 410,000. This indicates that within the drop in the number of enterprises, the impact of the decline in small enterprises is significant.

Fig. 1-2-2 Number of enterprises by enterprise size



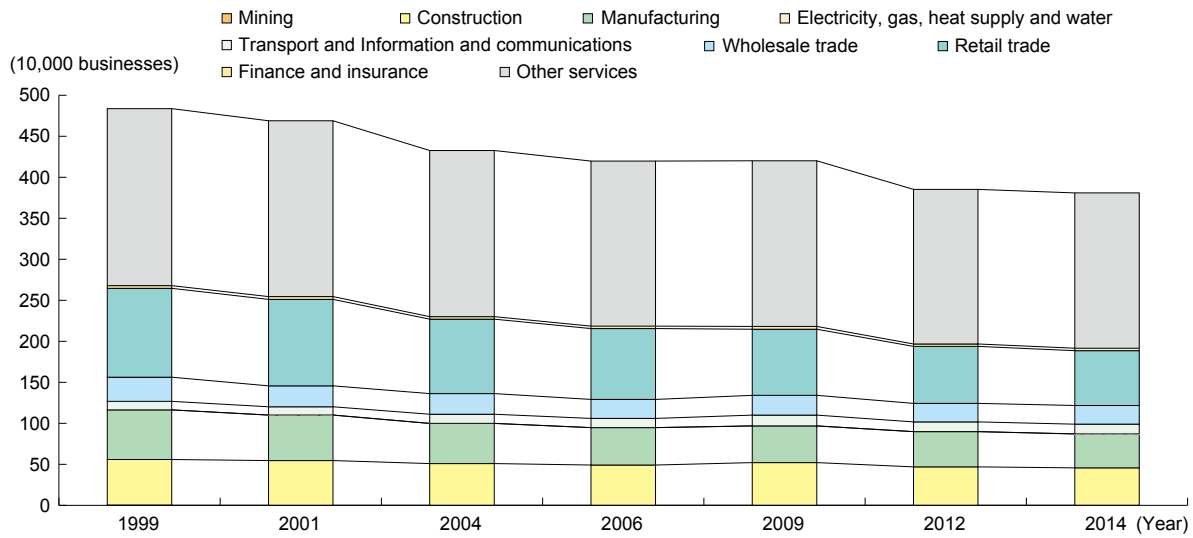
Sources: Recompiled from MIC, *1999, 2001, 2004 and 2006 Establishment and Enterprise Census*; *2009 and 2014 Economic Census for Business Frame* and MIC, METI, *2012 Economic Census for Business Activity*.

Notes: 1. Number of enterprises = Number of companies + Business establishments of sole proprietors
2. The *Economic Census* is based on an expanded scope of businesses and enterprises based on administrative records such as commercial and corporate registration records, and adopts a "head office collective survey method" whereby the business owner in the head office provides collective information of all branch offices, etc. Therefore, it is not appropriate to compare the results of the *Economic Census* with the results of the *Establishment and Enterprise Census* in simple terms.

Next, a breakdown of the trends in number of SMEs by nine industry sectors shows that the number of enterprises in all sectors is about the same compared to 1999, but if we focus on retail trade, there was a decline to about 60% of the previous level (in 2014 there were about 670,000 such enterprises, down from the roughly 1.08 million earlier). Thus, retail trade has had the biggest impact on the decline in the number of enterprises (Fig. 1-2-3).

1) Medium enterprises here refer to enterprises among SMEs as defined by the Small and Medium-sized Enterprise Basic Act that do not fall under the definition of small enterprises in the said Act.

Fig. 1-2-3 Trends in number of enterprises by industry sector

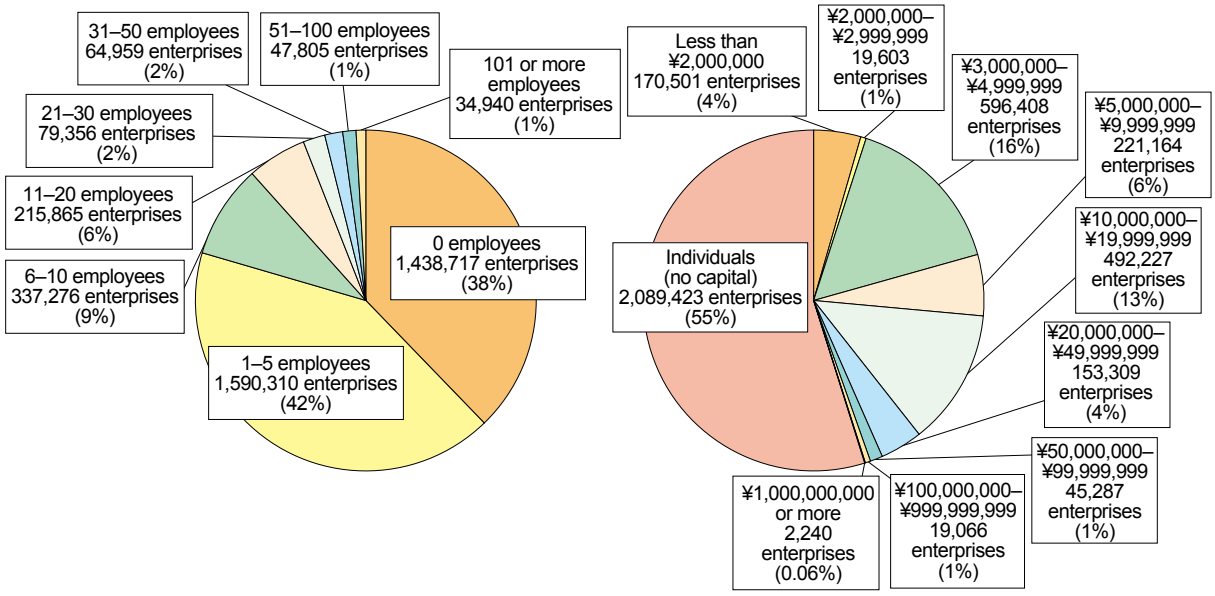


Sources: Recompiled from MIC, *1999, 2001, 2004 and 2006 Establishment and Enterprise Census*; *2009 and 2014 Economic Census for Business Frame* and MIC, METI, *2012 Economic Census for Business Activity*.

Notes: 1. Number of enterprises = Number of companies + Business establishments of sole proprietors
2. The *Economic Census* is based on an expanded scope of businesses and enterprises based on administrative records such as commercial and corporate registration records, and adopts a "head office collective survey method" whereby the business owner in the head office provides collective information of all branch offices, etc. Therefore, it is not appropriate to compare the results of the *Economic Census* with the results of the *Establishment and Enterprise Census* in simple terms.

Next, we look at the distribution of enterprises by number of regular employees and by scale of capital (Fig. 1-2-4). Looking first by number of regular employees, enterprises with 0–5 regular employees accounted for about 80% of the total. Looking by scale of capital, sole proprietorships made up more than half the total, enterprises with less than ¥10 million in capital about 30%, and enterprises with at least ¥10 million and less than ¥100 million in capital about 20%; together, these groups made up nearly the entirety.[2)]

Fig. 1-2-4 Number of enterprises by number of regular employees and by scale of capital



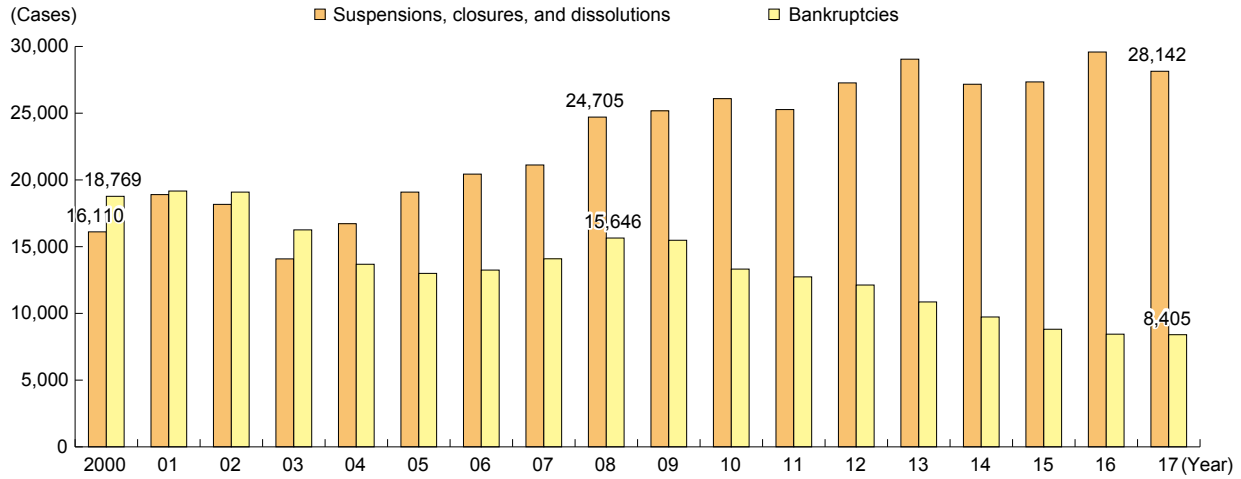
Source: Recompiled from MIC, *FY2014 Economic Census for Business Frame*.

2) If the management organization is a sole proprietorship, its capital is out of scope of the survey.

2. Suspensions, closures, dissolutions, and bankruptcies

Next, we look at trends in the number of suspensions, closures, dissolutions, and bankruptcies (Fig. 1-2-5). The trends over the past 10 years show a rising number of suspensions, closures, and dissolutions, but more recently, in 2017, that number fell to 28,142. The number of bankruptcies, on the other hand, fell for nine straight years since 2008, and in 2017 the number was 8,405, about as low as during the bubble economy.

Fig. 1-2-5 Number of suspensions, closures, dissolutions, and bankruptcies

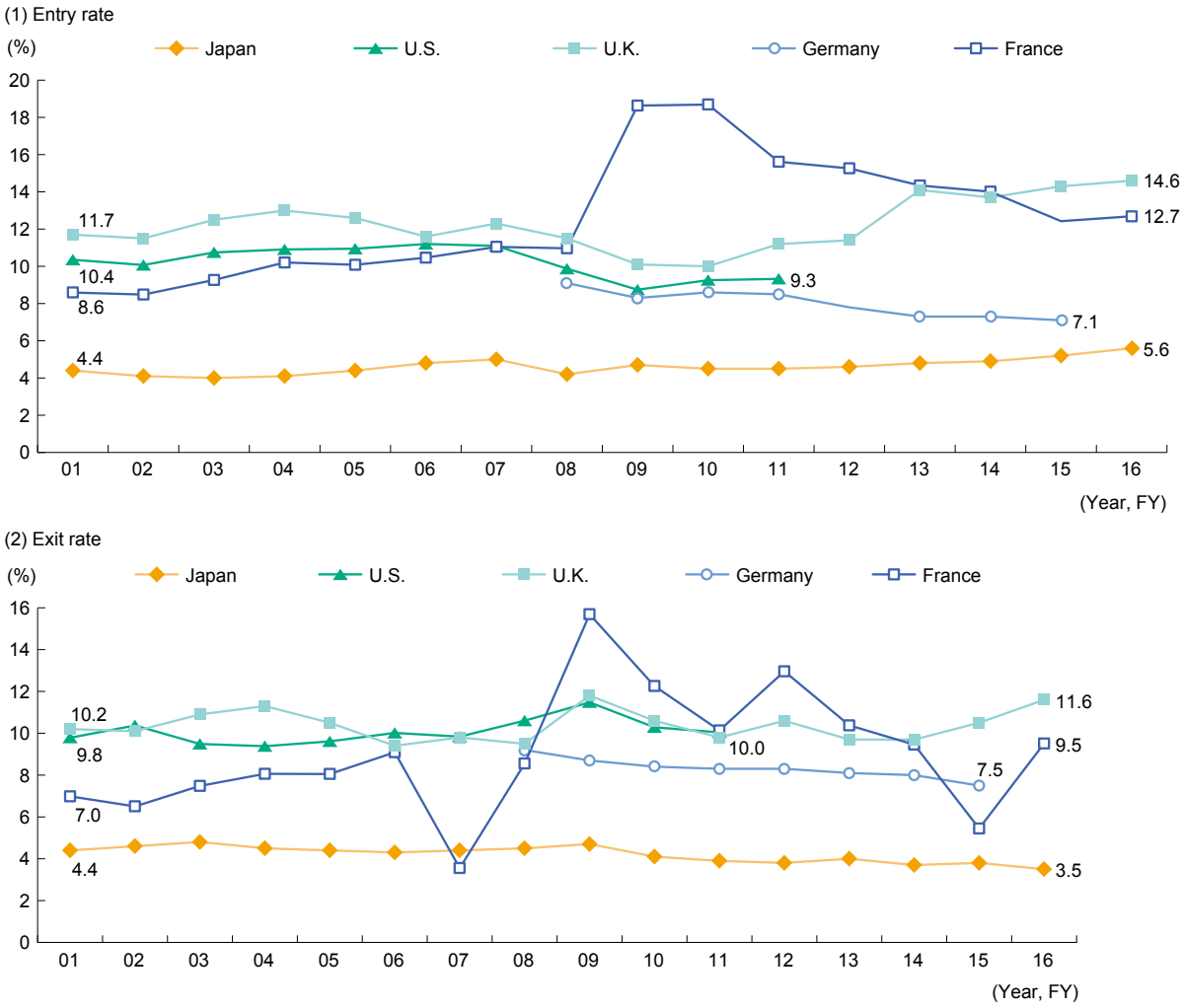


Source: Tokyo Shoko Research, Ltd., *2017 Survey of Business Suspensions, Closures and Dissolutions*.
Notes:
1. Business suspension and closure refers to the termination of business with more assets than liabilities, without taking any particular procedures.
2. Dissolution refers to the termination of business and the commencement of the necessary settlement procedures for extinguishing the corporate status of the enterprise. Such enterprises basically have more assets than liabilities, but they may be found to have a capital deficit after dissolution, in which case they are retabulated as a bankruptcy.
3. Bankruptcy refers to a state where an enterprise has become it is unable to pay its debts and cannot continue engaging in economic activities. Voluntary liquidation (including suspension of transactions) is also categorized as a bankruptcy.

3. Trends in entry and exit rates and international comparison

This part looks at trends in entry and exit rates in Japan and compares them to the U.S. and some European countries (Fig.1-2-6). Looking first at entry and exit rates, the entry rate in Japan continues to be about 4%–5%, but the lowest among the other countries was about 7% in Germany while the highest was more than 14% in the U.K. The exit rate in Japan has recently been under 4%, but the lowest among the other countries was about 7% in Germany while the highest was more than 11% in the U.K. Differences in statistical methods between Japan and the other countries make it impossible to do a simple comparison, but the figures show that both the entry and exit rates are considerably lower in Japan than in other industrialized nations.

Fig. 1-2-6 International comparison of entry and exit rates



Sources: Japan: Ministry of Health, Labour and Welfare, *Annual Report on Employment Insurance Programs (Fiscal year basis)*.
U.S.: U.S. Small Business Administration, *The Small Business Economy*.
U.K.: Office for National Statistics, *Business Demography.*
Germany: Statistisches Bundesamt, *Unternehmensgründungen, -schließungen: Deutschland, Jahre, Rechtsform, Wirtschaftszweige*.
France: INSEE, *Taux de création d'entreprises*.

Notes:
1. Japan's entry and exit rates are calculated based on the establishment and discontinuance of businesses that provide employees with insurance (applicable businesses).
2. The rates of business entries and exits for the U.S. are calculated based on the emergence and disappearance of employers.
3. The rates of business entries and exits for the U.K. are calculated based on the number of companies registered as paying value-added tax (VAT) and pay-as-you-earn (PAYE) tax.
4. Germany's entry and exit rates are calculated based on the number of companies that submit notifications of the establishment and discontinuance of business.
5. France's entry and exit rates are calculated based on the number of companies registered into or removed from the SIRENRE register of companies and establishments.
6. Because the characteristics of the statistics differ between countries, it is not possible to make simple comparisons.

Column 1-2-1 Cultivating business startup momentum

This column looks at case studies of measures and initiatives relating to the cultivation of business startup momentum in Japan.

Revision of the Act on Strengthening Industrial Competitiveness

Business startups are important because they promote "industrial metabolism," energize the Japanese economy, and create jobs. That is why the Japan Revitalization Strategy adopted by Cabinet decision in June 2013 sets a target of raising the "business startup rate...to 10% range on par with the U.S. and U.K." Moreover, the Act on Strengthening Industrial Competitiveness, enforced in January 2014, seeks to promote regional business startups by providing business startup support through partnerships between municipalities and private enterprises (such as regional financial institutions, non-profits, and societies and chambers of commerce and industry). There are 1,379 local governments with plans for business startup support (startup support business plans) that have received authorization from the national government, which together cover 97% of the nation's population. Moreover, in the three most recent years (FY2014–FY2016), the entry rate rose each year (it was 5.6% in FY2016), but strengthening business startup support measures is essential if the target under the Japan Revitalization Strategy is to be achieved. Measures taken so far have mainly been directed at people making startup preparations, but there is data indicating that Japan has a higher rate than North America and European nations of people disinterested in starting a business, so it would appear that more effort should be made going forward on taking measures for people disinterested in starting a business.

Under the Bill for Partially Revising the Act on Strengthening Industrial Competitiveness adopted by Cabinet decision on February 9, 2018, the national government would promote projects to popularize and raise awareness of business startups (startup momentum cultivation projects) to increase citizens' understanding of and interest in business startups. Specifically, startup support schemes based on the current Act on Strengthening Industrial Competitiveness would be maintained, but in addition, current startup support business plans would now be called "startup support, etc., business plans," and startup momentum cultivation projects would be placed under those plans. Startup momentum cultivation projects could include, for example, training entrepreneurs and holding business plan contests for young people.

(Reference) The four stages of business startups

(1) People disinterested in starting a business:
Those who currently have no interest in starting a business
(2) Entrepreneurial hopefuls:
Those who are interested in starting a business or desire to do so, but have not yet made concrete preparations to do so
(3) People making startup preparations:
Those who desire to start a business and are making concrete preparations to do so
(4) Entrepreneurs: People who have started a business

Case study of initiatives to popularize and raise awareness of business startups

1. Curio School, Inc., Mono-Coto Innovation

Curio School, Inc. (employees: 9; capital: ¥10 million), located in Meguro City, Tokyo, was established in 2015 as a company "in the business of human OS cultivation."

The company envisions a future in which society as a whole is happier, because more people are looking beyond their own futures. To realize that vision, it nurtures the "human OS," which refers to people with three characteristics: intellectual curiosity, creativity, and the ability to collaborate. Specifically, it conducts training programs for elementary school students, junior and senior high school students, and enterprises.

Each year, the company stages an event called Mono-Coto Innovation, a contest for junior and senior high school students described as the "Koshien of creativity, a competition for giving shape to ideas." Students use design thinking and collaborate with enterprises to craft something in competition against others. Unique characteristics of the program are "real themes," "real prototypes," and "real mentors." The challenges that the students take are not simulated themes as in an ordinary contest, but real business problems presented by sponsor enterprises. Ideas go beyond the idea stage; students build their ideas into actual prototypes. The program even asks

sponsor enterprises to commit to keeping the process "real." These sponsor enterprises not only provide funding, but also employees to serve as long-term mentors who are genuinely involved with the students.

The 2017 contest drew entries from a total of 250 junior and senior high school students from throughout Japan, of which 150 were selected. These went to camp-style preliminaries, which winnowed the field down to five teams of 20 members as finalists. The winners were New-Wind, a team of senior high school students who thought up a dome-like device called COVO that enables "spatio-temporal sharing" with friends in other locations. They envision a scenario in which a female student is a long-term inpatient at a hospital and feels a physical and mental distance between her and her friends. With that in mind, they created a device that meets the real needs of the patient and her friends.

Mono-Coto Innovation has been held just three times so far, but it has already led to a variety of outcomes. Students who take part in the program learn a number of skills, such as how to think in a way that questions everyday assumptions and how to transfer thinking into action. Even the working people who serve as mentors feel greatly stimulated by the students' flexible thinking and pure feelings. And in some cases, program participants have gone on to actually start up a business. Additionally, one creation that came out of the program was exhibited at CEATEC JAPAN, becoming the first product from senior high school students to be exhibited at the trade show. Some products are currently under development for commercial release, and patent applications are being prepared in some cases.

Curio School's director, Yusaku Someya, says, "Through this program, we are trying to spread a culture to all of Japan where different generations work together to build the future. We hope to offer Japan a new road to insight. The products and services that originate from this program, and the young people that it nurtures, will have a positive impact on the world in the not so distant future." The innovations that arise from this "real" program seem likely to spread further going forward.

Fig. Column 1-2-1 (1) Curio School, Inc., Mono-Coto Innovation

After the 2017 awards ceremony

2017 finalists give their presentation

2. Gunma Innovation Award

Sponsored by Jomo Shimbunsha, Gunma Innovation Award (GIA) is an entrepreneur discovery project. Hitoshi Tanaka, president of JINS Inc., serves as the project's executive chairman. It discovers future entrepreneurs and people with entrepreneurial spirit, adding to the innovation momentum in Gunma Prefecture and beyond.

GIA is an initiative begun in 2013 under the motto "Make Gunma the holy ground of entrepreneurialism!" As of 2017, it is in its fifth year. The impact of GIA is growing year by year. The number of entries grows yearly. Starting with 57 entries in 2013, the program accepted a record 185 applications in 2017. Support for GIA has likewise grown in that time period. The number of companies listed as a Special Corporate Sponsor, Partner Company, or Financial Supporter went from 21 in 2013 to more than 70 in 2017. Inspired by the excitement surrounding GIA, Okayama Prefecture and Ishikawa Prefecture have started similar projects.

One reason GIA is having a growing impact is that it involves a diversity of stakeholders, which distinguishes it from an ordinary business contest. Another factor is that it involves multi-faceted project design. The persons who serve as special sponsors and executive committee members are presidents of enterprises begun in Gunma Prefecture. Award sponsor Jomo Shimbunsha covers GIA initiatives extensively in its newspaper to make them better known to the prefecture's citizens. Meanwhile, award sponsor Tanaka Hitoshi Foundation has run the year-round Gunma Innovation School since 2014 in parallel with GIA. Instructors have included professors from the Waseda Business School, University of Tokyo Division of University Corporate Relations, and Komazawa University Faculty of Global Media Studies, among others.

The winner of GIA's grand prize in 2017 was Tetsuro Okuya, the first senior high school student to win an award. Taking a hint from his own experience with allergies, he announced a business plan for a restaurant search application helping allergy sufferers to find meals they could safely eat. The formative experience for Okuya happened when he went to a restaurant for a meal, told the staff about his allergies, and was refused service because they could not guarantee whether their food would be safe for him. The announcement of finalists in Maebashi City had an audience of 3,500 people from around Gunma Prefecture (including participants in Gunma Innovation Market, a concurrent event). That included other senior high school students. They came away very inspired to see someone their age win such an honor. As winner of the grand prize, Okuya earned a training tour to Silicon Valley in California. He joined a seminar by Prof. Jiro Kokuryo (chairman of the GIA Judging Committee) at the Keio University Shonan Fujisawa Campus (SFC), where he brushed up his business plan to present to investors and entrepreneurs in Silicon Valley. Okuya had also a chance to seek admission to SFC through its Self-Recommended Admissions process, or use another credential for the Gunma Innovation School given to him. Hitoshi Tanaka, president of JINS Inc. and executive chairman of the Gunma Innovation Project, believes that increasing startups in Japan will require society as a whole to embrace the idea that "starting a business is an amazing thing." The key to changing people's awareness, he insists, is to "show them examples of 'cool entrepreneurs.'"

Fig. Column 1-2-1 (2) Gunma Innovation Award

2017 grand prize winner Tetsuro Okuya gives his presentation

At the 2017 awards ceremony

Section 2 Changes in the structure of enterprises in Japan

This section gives an overview of structural changes at enterprises in Japan, looking at the number of such enterprises, the number of workers they have, and the added value they create, based on regular employees class and the year of establishment. It additionally analyzes the labor productivity of enterprises, based on the regular employees class and year of establishment.

1. Structure of the number of enterprises in Japan

This part analyzes the structure of enterprises in Japan based on regular employees class[3] and year of establishment.

Fig. 1-2-7 shows the distribution of number of enterprises in Japan by regular employees class and by year of establishment.[4]

Looking at the distribution by regular employees class, there were about 1.59 million enterprises who said they had "1–5." This was the largest group, making up about 42% of the total. The next most common was "0," which was the answer given by about 1.44 million (about 38% of the total). So there are about 3.03 million enterprises (roughly 79% of the total) with five or fewer regular employees. There is a big gap between the number of enterprises answering "1–5" and the number saying "6–10," and as the regular employees class increases, the number of enterprises grows smaller. About 230,000 enterprises (about 6%) of the total answered "21–300," while those with "301 or more" numbered only around 14,000 (about 0.4% of the total), including large enterprises.

Next, the distribution is analyzed by year of establishment.[5] There were about 1.56 million enterprises (about 41% of the total) established in 1984 or earlier, about 720,000 (about 19%) established in the decade 1985–1994, about 750,000 (about 20%) established in the decade 1995–2004, and about 760,000 (about 20%) established in the decade[6] since 2005.

Looking at the relationship between regular employees class and year of establishment, the biggest group was enterprises with 1–5 regular employees established in 1984 or earlier, at about 640,000 (about 17%), followed by enterprises with 0 regular employees established in 1984 or earlier, at about 610,000 (about 16%). These two groups together made up about 33% of all enterprises in Japan.

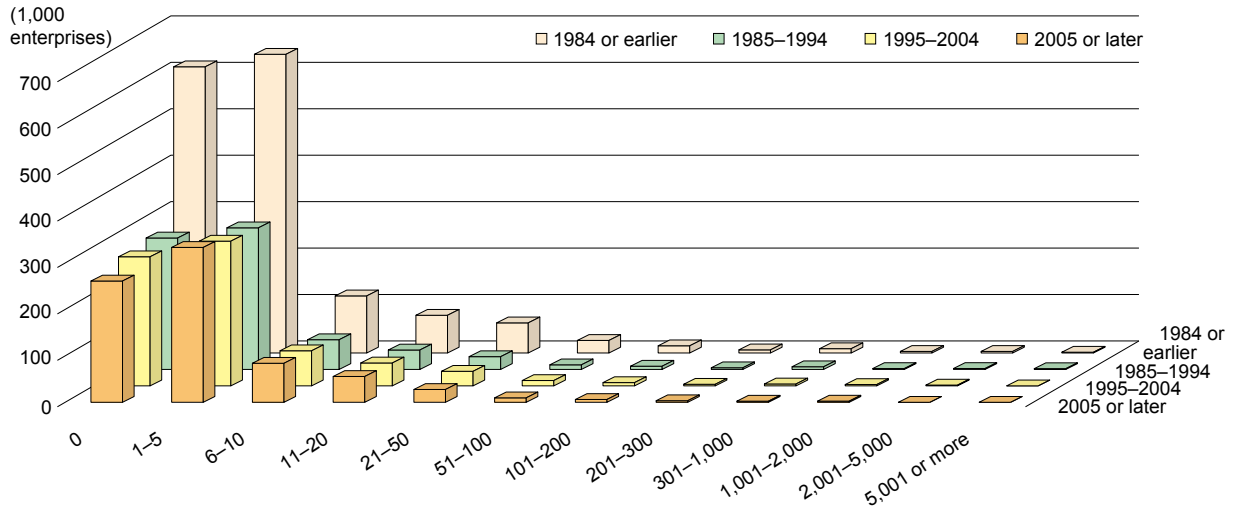
3) Here, enterprises are categorized into classes based on the number of regular employees. "Regular employee" means a person hired for an unspecified period or for a specified period of at least one month. The term "regular employees" does not include sole proprietors themselves, unpaid persons in the sole proprietor's family, paid executives, or temporary employees (persons hired for a specified period of less than a month, and persons hired on a day to day basis).

4) Economic Censuses ask respondents the year their business establishment opened (the year the business establishment started doing business at its current location), not the year the company or enterprise was founded. Data here is aggregated based on the definition that the enterprise's year of establishment is the year its oldest business establishment opened. Therefore, relocations of business establishments may make the same, continuing enterprise appear younger when two different points in time are compared.

5) Economic Census survey forms give respondents a choice of "1984 or earlier," "1985–1994," "1995–2004," or "2005 or later (write in the specific year)" as the year the business establishment opened, and analysis is done according to those categories.

6) This is the 10-year period up to July 1, 2014, the subject of inquiry in the *FY2014 Economic Census for Business Frame.*

Fig. 1-2-7 Number of enterprises, by regular employees class and by year of establishment (2014, SMEs, large enterprises)



Source: Recompiled from MIC, *FY2014 Economic Census for Business Frame*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-7 (2) Number of enterprises, by regular employees class and by year of establishment (2014, SMEs, large enterprises)

Unit: 1000s of enterprises

Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total	Cumulative percentage of total
0	611 (16.0%)	280 (7.3%)	275 (7.2%)	259 (6.8%)	14 (0.4%)	1,439 (37.7%)	(37.7%)
1-5	640 (16.7%)	301 (7.9%)	308 (8.1%)	331 (8.7%)	11 (0.3%)	1,590 (41.6%)	(79.3%)
6-10	120 (3.1%)	62 (1.6%)	72 (1.9%)	82 (2.1%)	2.0 (0.1%)	337 (8.8%)	(88.1%)
11-20	79 (2.1%)	38 (1.0%)	46 (1.2%)	52 (1.4%)	1.2 (0.0%)	216 (5.7%)	(93.8%)
21-50	63 (1.6%)	25 (0.7%)	29 (0.8%)	26 (0.7%)	0.5 (0.0%)	144 (3.8%)	(97.5%)
51-100	24 (0.6%)	8.3 (0.2%)	9.4 (0.2%)	6.3 (0.2%)	0.1 (0.0%)	49 (1.3%)	(98.8%)
101-200	13 (0.3%)	3.9 (0.1%)	4.2 (0.1%)	2.4 (0.1%)	0.0 (0.0%)	24 (0.6%)	(99.4%)
201-300	4.6 (0.1%)	1.3 (0.03%)	1.3 (0.03%)	0.7 (0.02%)	0.0 (0.0%)	7.9 (0.2%)	(99.6%)
301-1,000	6.3 (0.2%)	1.5 (0.04%)	1.5 (0.04%)	0.7 (0.02%)	0.0 (0.0%)	10.1 (0.3%)	(99.9%)
1,001-2,000	1.3 (0.03%)	0.3 (0.01%)	0.2 (0.01%)	0.1 (0.002%)	0.0 (0.0%)	1.9 (0.05%)	(99.96%)
2,001-5,000	0.8 (0.02%)	0.1 (0.003%)	0.1 (0.003%)	0.0 (0.001%)	0.0 (0.0%)	1.1 (0.03%)	(99.99%)
5,001-	0.4 (0.01%)	0.1 (0.002%)	0.0 (0.001%)	0.0 (0.0003%)	0.0 (0.0%)	0.5 (0.014%)	(100.00%)
	1,563 (40.9%)	721 (18.9%)	748 (19.6%)	760 (19.9%)	29 (0.7%)	3,820 (100.0%)	

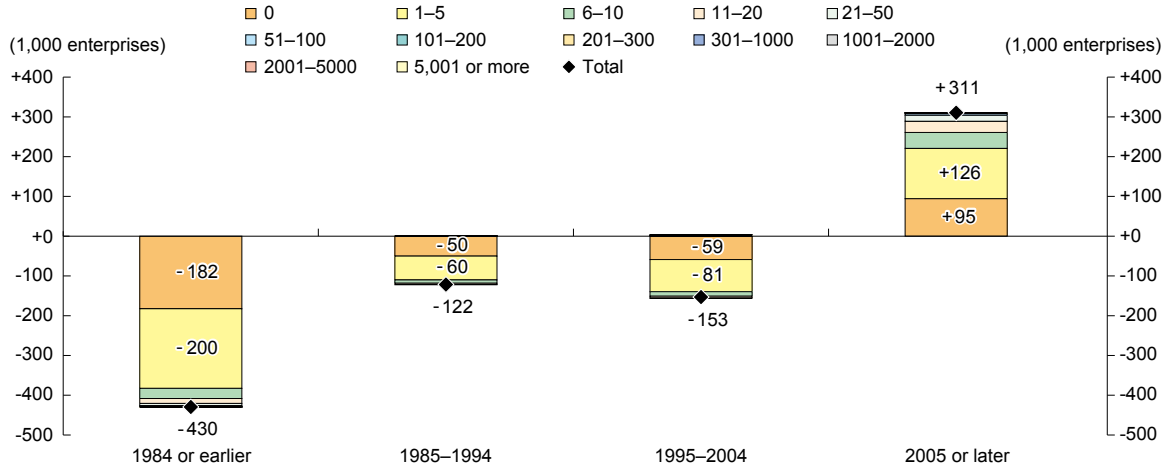
Next, we look at a breakdown of the number of enterprises as it changed from 2009 to 2014, by year of establishment and by regular employees class (Fig. 1-2-8).

Changes in the number of enterprises by year of establishment include a drop of about 430,000 enterprises established in 1984 or earlier, a drop of about 120,000 enterprises established in 1985–1994, and a drop of about 150,000 enterprises established in 1995–2004. On the other hand, the number of enterprises established in 2005 or later rose by 310,000, for a net loss of 390,000 overall.

Looked at by regular employees class, the number of enterprises with five or fewer regular employees declined by about 410,000. Of those, there was a particularly large decline in enterprises established in 1984 or earlier.

In year of establishment categories other than 1984 or earlier, there was a slight increase in the number of enterprises with more than 50 regular employees, and as the number of years rises, there were a certain number of enterprises that increased their number of regular employees.

Fig. 1-2-8 Change in number of enterprises, by year of establishment (change from 2009 to 2014, SMEs, large enterprises)



Sources: Recompiled from MIC, *FY2009 and 2014 Economic Census for Business Frame*.
Notes: 1. Number of enterprises = Number of companies + Business establishments of sole proprietors
2. In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-8 (2) Change in number of enterprises, by year of establishment (change from 2009 to 2014, SMEs, large enterprises)

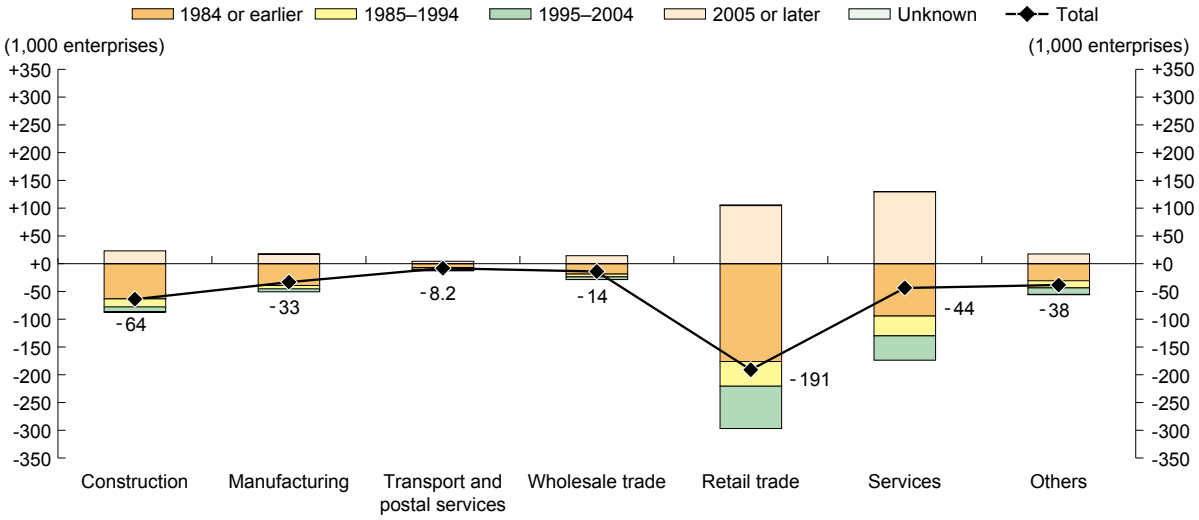
Unit: 1000s of enterprises

Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total
0	-182	-50	-59	+95	+1.7	-195
1-5	-200	-60	-81	+126	-0.9	-216
6-10	-26	-8.3	-11	+40	+0.1	-5.2
11-20	-12	-3.2	-4.7	+28	+0.2	+8.2
21-50	-5.8	-0.7	-0.1	+15	+0.1	+8.3
51-100	-1.7	+0.04	+1.2	+4.0	+0.03	+3.5
101-200	-0.9	+0.1	+0.7	+1.6	+0.01	+1.5
201-300	-0.4	+0.1	+0.3	+0.4	+0.00	+0.4
301-1,000	-0.2	+0.2	+0.4	+0.5	+0.01	+0.8
1,001-2,000	-0.1	+0.1	+0.1	+0.1	-	+0.1
2,001-5,000	-0.02	+0.03	+0.04	+0.03	+0.001	+0.1
5,001-	-0.02	+0.02	+0.01	+0.003	-	+0.01
Total	-430	-122	-153	+311	+1.2	-393

Next, we look at a breakdown of the number of enterprises as it changed from 2009 to 2014, by industry sector.[7] Arranging the industry sectors from biggest decline to smallest, retail trade was first, with a drop of about 190,000 enterprises. It was followed by construction (down 64,000), services (down 44,000), and manufacturing (down 33,000).

Looked at by year of establishment, for retail trade and services, there was a great decline among enterprises established in 1984 or earlier, but there were also many enterprises established in 2005 or later, so there have been many market entries and exits.

Fig. 1-2-9 Change in number of enterprises, by industry sector (change from 2009 to 2014, SMEs, large enterprises)



Sources: Recompiled from MIC, *FY2009 and 2014 Economic Census for Business Frame*.
Notes: 1. Number of enterprises = Number of companies + Business establishments of sole proprietors
2. In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-9 (2) Change in number of enterprises, by industry sector (change from 2009 to 2014, SMEs, large enterprises)

Unit: 1000s of enterprises

	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total
Construction	-63	-14	-9.2	+23	-0.1	-64
Manufacturing	-39	-6.1	-5.5	+17	+0.5	-33
Transport and postal services	-7.1	-3.0	-2.3	+4.3	-0.1	-8.2
Wholesale trade	-19	-5.1	-4.7	+14	-0.1	-14
Retail trade	-176	-45	-76	+105	+1.2	-191
Services	-94	-36	-44	+130	+0.5	-44
Others	-31	-13	-12	+18	-0.7	-38
Total	-430	-122	-153	+311	+1.2	-393

7) Services here include information and communications, scientific research and professional services, accommodations, living-related and personal services, amusement services, education and learning support, medical, health care and welfare, compound services, and services (not elsewhere classified).

2. Structure of the number of workers at enterprises in Japan

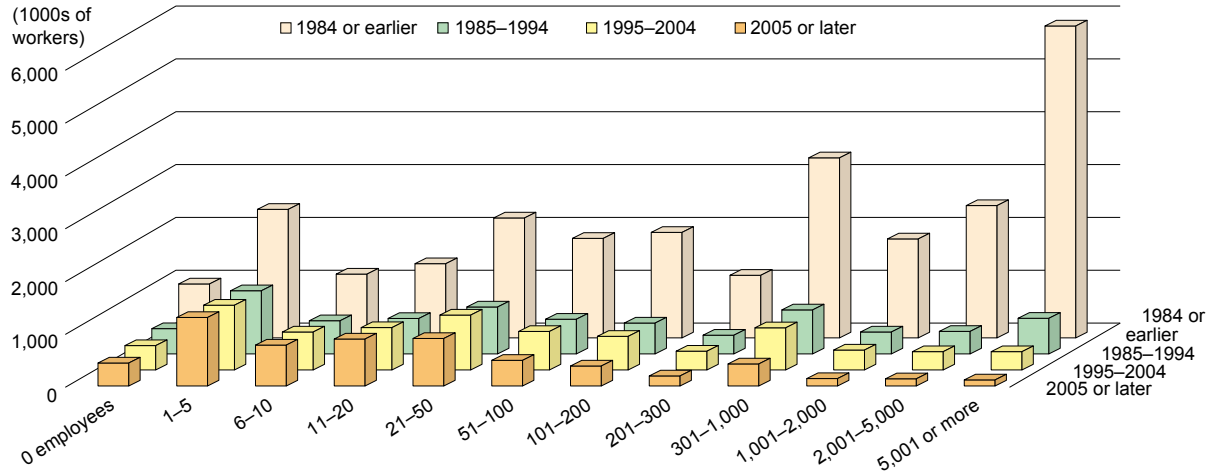
Next, we look at the distribution of the number of workers[8] by regular employees class and by year of establishment (Fig. 1-2-10).

Looked at by year of establishment, the number of workers at enterprises established in 1984 or earlier was about 26.79 million, a majority of workers at about 56% of the total. The category with the largest number of workers was enterprises with 5,001 or more workers established in 1984 or earlier, with about 5.87 million (about 12% of the total).

Looking at the data by regular employees class, on the other hand, enterprises with 20 or fewer made up about 32%, those with 100 or fewer about 50%, and those with 300 or fewer about 62%.

Looking at the distribution of number of workers, at enterprises of regular employees class of 301 or more, there is a high concentration of workers at older enterprises, but at enterprises of 300 or fewer, that trend is less pronounced, and younger enterprises have an adequate number of workers.

Fig. 1-2-10 Number of workers, by regular employees class and by year of establishment (2014, SMEs, large enterprises)



Source: Recompiled from MIC, *FY2014 Economic Census for Business Frame*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

8) Here, the number of workers includes sole proprietors themselves, unpaid persons in the sole proprietor's family, paid executives, and temporary employees.

Fig. 1-2-10 (2) Number of workers, by regular employees class and by year of establishment (2014, SMEs, large enterprises)

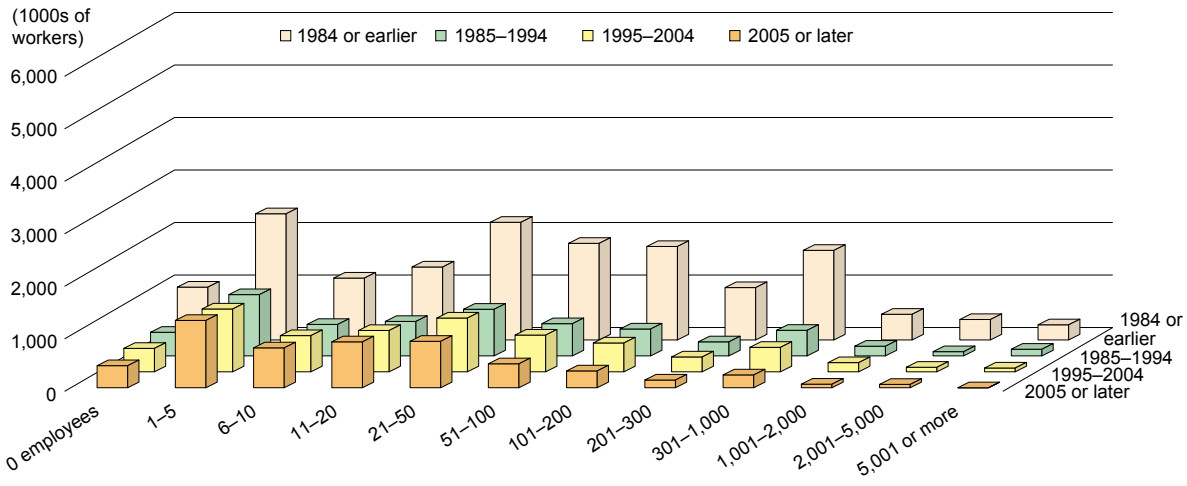
Unit: 1000s of workers

Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total	Cumulative percentage of total
0	1,002 (2.1%)	445 (0.9%)	432 (0.9%)	410 (0.9%)	20 (0.0%)	2,310 (4.8%)	(4.8%)
1-5	2,402 (5.0%)	1,163 (2.4%)	1,201 (2.5%)	1,278 (2.7%)	37 (0.1%)	6,081 (12.7%)	(17.5%)
6-10	1,174 (2.4%)	602 (1.3%)	692 (1.4%)	761 (1.6%)	18 (0.0%)	3,248 (6.8%)	(24.3%)
11-20	1,384 (2.9%)	648 (1.4%)	782 (1.6%)	861 (1.8%)	19 (0.0%)	3,694 (7.7%)	(32.0%)
21-50	2,233 (4.7%)	876 (1.8%)	1,019 (2.1%)	880 (1.8%)	16 (0.0%)	5,023 (10.5%)	(42.5%)
51-100	1,858 (3.9%)	624 (1.3%)	709 (1.5%)	468 (1.0%)	7.3 (0.0%)	3,667 (7.6%)	(50.1%)
101-200	1,969 (4.1%)	568 (1.2%)	617 (1.3%)	359 (0.7%)	5.2 (0.0%)	3,517 (7.3%)	(57.5%)
201-300	1,166 (2.4%)	323 (0.7%)	347 (0.7%)	165 (0.3%)	2.3 (0.0%)	2,004 (4.2%)	(61.6%)
301-1,000	3,386 (7.1%)	819 (1.7%)	772 (1.6%)	387 (0.8%)	5.3 (0.0%)	5,369 (11.2%)	(72.8%)
1,001-2,000	1,851 (3.9%)	392 (0.8%)	361 (0.8%)	124 (0.3%)	2.8 (0.0%)	2,731 (5.7%)	(78.5%)
2,001-5,000	2,492 (5.2%)	397 (0.8%)	331 (0.7%)	117 (0.2%)	2.4 (0.0%)	3,340 (7.0%)	(85.5%)
5,001-	5,872 (12.2%)	655 (1.4%)	328 (0.7%)	97 (0.2%)	0.0 (0.0%)	6,952 (14.5%)	(100.00%)
Total	26,789 (55.9%)	7,512 (15.7%)	7,591 (15.8%)	5,907 (12.3%)	136 (0.3%)	47,935 (100.0%)	

Next, Fig. 1-2-11 shows the distribution of the number of workers at SMEs by regular employees class and by year of establishment.

The category with the highest percentage was enterprises with 1–5 regular employees, which had about 6.08 million (about 18%). Enterprises with 20 or fewer regular employees accounted for about 46% of the total.

Fig. 1-2-11 Number of workers, by regular employees class and by year of establishment (2014, SMEs)



Source: Recompiled from MIC, *FY2014 Economic Census for Business Frame*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-11 (2) Number of workers, by regular employees class and by year of establishment (2014, SMEs)

Unit: 1000s of workers

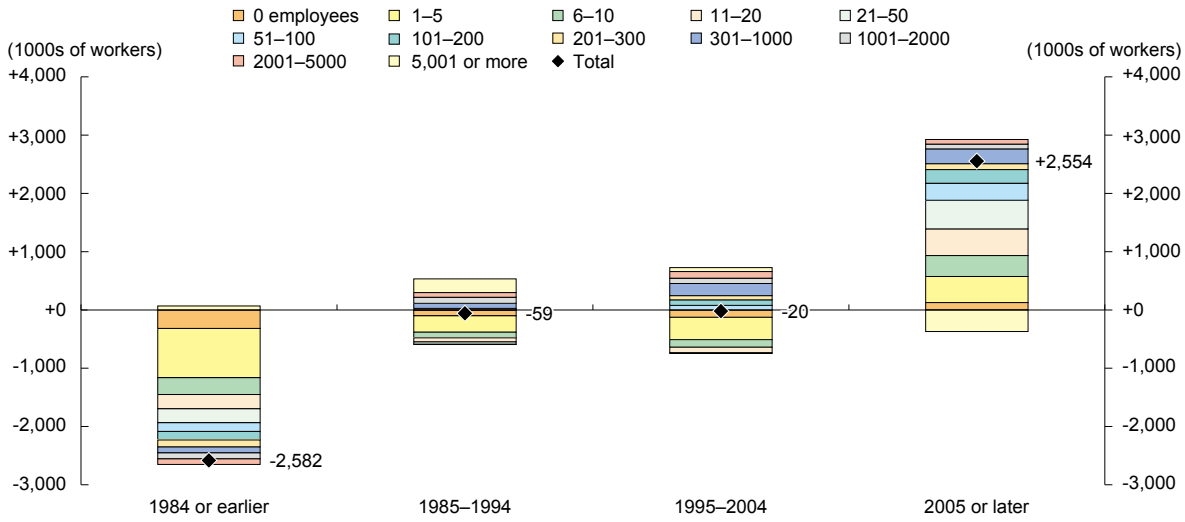
Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total	Cumulative percentage of total
0	1,002 (3.0%)	445 (1.3%)	432 (1.3%)	410 (1.2%)	20 (0.1%)	2,310 (6.9%)	(6.9%)
1-5	2,402 (7.1%)	1,163 (3.5%)	1,201 (3.6%)	1,278 (3.8%)	37 (0.1%)	6,081 (18.1%)	(25.0%)
6-10	1,174 (3.5%)	602 (1.8%)	692 (2.1%)	761 (2.3%)	18 (0.1%)	3,248 (9.7%)	(34.6%)
11-20	1,384 (4.1%)	648 (1.9%)	782 (2.3%)	861 (2.6%)	19 (0.1%)	3,694 (11.0%)	(45.6%)
21-50	2,233 (6.6%)	876 (2.6%)	1,019 (3.0%)	880 (2.6%)	16 (0.0%)	5,023 (14.9%)	(60.6%)
51-100	1,836 (5.5%)	612 (1.8%)	696 (2.1%)	458 (1.4%)	7,0 (0.0%)	3,609 (10.7%)	(71.3%)
101-200	1,779 (5.3%)	512 (1.5%)	546 (1.6%)	319 (0.9%)	4.5 (0.0%)	3,160 (9.4%)	(80.7%)
201-300	995 (3.0%)	269 (0.8%)	282 (0.8%)	141 (0.4%)	2.0 (0.0%)	1,689 (5.0%)	(85.7%)
301-1,000	1,707 (5.1%)	481 (1.4%)	464 (1.4%)	228 (0.7%)	2.4 (0.0%)	2,883 (8.6%)	(94.3%)
1,001-2,000	486 (1.4%)	175 (0.5%)	166 (0.5%)	57 (0.2%)	1.6 (0.0%)	886 (2.6%)	(96.9%)
2,001-5,000	383 (1.1%)	72 (0.2%)	78 (0.2%)	46 (0.1%)	0.0 (0.0%)	579 (1.7%)	(98.7%)
5,001-	275 (0.8%)	120 (0.4%)	55 (0.2%)	0 (0.0%)	0.0 (0.0%)	449 (1.3%)	(100.0%)
Total	15,655 (46.6%)	5,975 (17.8%)	6,413 (19.1%)	5,438 (16.2%)	129 (0.4%)	33,610 (100.0%)	

Next, we look at a breakdown of the number of workers as it changed from 2009 to 2014 (Fig. 1-2-12).

The number of workers declined by about 2.58 million at enterprises established in 1984 or earlier, by about 60,000 at those established in 1985–1994, and by about 20,000 at those established in 1995–2004, but increased by about 2.55 million at enterprises established in 2005 or later, for a net decline of about 100,000 overall.

The number of workers has declined steeply at enterprises established in 1984 or earlier, but also risen sharply at those established in 2005 or later. This indicates that younger enterprises create many jobs.

Fig. 1-2-12 Change in number of workers, by year of establishment (change from 2009 to 2014, SMEs, large enterprises)



Sources: Recompiled from MIC, *FY2009 and 2014 Economic Census for Business Frame*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-12 (2) Change in number of workers, by year of establishment (change from 2009 to 2014, SMEs, large enterprises)

Unit: 1000s of workers

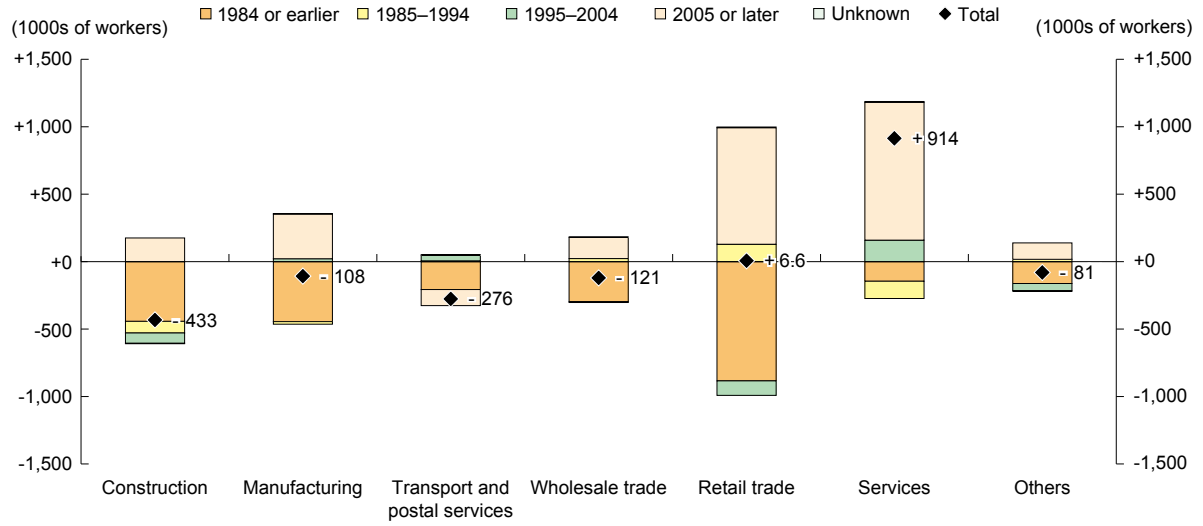
Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total
0	-318	-100	-126	+127	+0.5	-416
1-5	-845	-282	-383	+447	-7.4	-1,070
6-10	-288	-96	-131	+359	+0.6	-155
11-20	-245	-70	-95	+458	+1.8	+50
21-50	-239	-40	-11	+491	+1.9	+201
51-100	-149	-4	+79	+292	+1.9	+220
101-200	-148	+4	+95	+234	+1.8	+187
201-300	-119	+24	+71	+101	+0.8	+77
301-1,000	-101	+86	+208	+255	+3.4	+451
1,001-2,000	-102	+104	+90	+81	+1.7	+176
2,001-5,000	-96	+80	+115	+79	+2.4	+181
5,001-	+68	+235	+67	-371	-	-0.5
Total	-2,582	-59	-20	+2,554	+9.5	-98

Next, we look at a breakdown of the number of workers by industry sector as it changed from 2009 to 2014 (Fig. 1-2-13).

Among the industry sectors where the number of workers declined, the sharpest declines, in order, were in construction (loss of about 430,000), transport and postal services (loss of about 280,000), wholesale trade (loss of about 120,000), and manufacturing (loss of about 110,000). Within the construction industry, increases in number of workers at younger companies established in 2005 or later were not as great as the declines in older enterprises, and the overall decline was greatest in this sector.

Sectors with increases in the number of workers were, in order of the size of increase, services (gain of about 910,000) and retail trade (gain of about 7,000). In the services, the number of workers rose by 1.02 million at enterprises established in 2005 or later, leading to a big increase in number of workers in the sector. In retail trade, the number of workers has declined steeply (by about 880,000) at enterprises established in 1984 or earlier, but also rose by 860,000 at those established in 2005 or later, and there was a gain of 7,000 overall.

Fig. 1-2-13 Change in number of workers, by industry sector (change from 2009 to 2014, SMEs, large enterprises)



Sources: Recompiled from MIC, *FY2009 and 2014 Economic Census for Business Frame*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-13 (2) Change in number of workers, by industry sector (change from 2009 to 2014, SMEs, large enterprises)

Unit: 1000s of workers

	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total
Construction	-443	-87	-76	+176	-3	-433
Manufacturing	-445	-19	+22	+331	+3	-108
Transport and postal services	-207	+6.4	+43	-119	+1	-276
Wholesale trade	-297	+23	-5.9	+158	+0.5	-121
Retail trade	-884	+129	-107	+864	+5	+6.6
Services	-145	-128	+159	+1,022	+6	+914
Others	-162	+17	-54	+122	-3	-81
Total	-2,582	-59	-20	+2,554	+9	-98

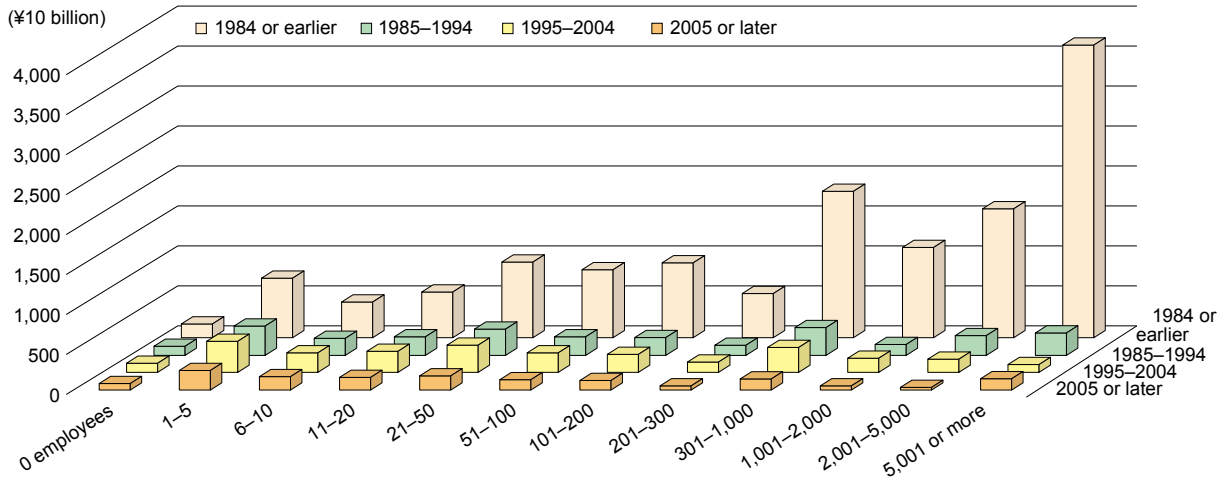
3. Structure of added value at enterprises in Japan

Fig. 1-2-14 shows the distribution of added value created by enterprises in Japan by regular employees class and by year of establishment.

Looked at by year of establishment, about 65% of added value was created by enterprises established in 1984 or earlier. The data shows that, within that category, enterprises with 301 or more employees created great added value.

Looking at the data by regular employees class, enterprises with 20 or fewer regular employees created about 22% of the added value, and those with 300 or fewer about 50%.

Fig. 1-2-14 Amount of added value, by regular employees class and by year of establishment (2011, SMEs, large enterprises)



Source: Recompiled from MIC/METI, *FY2012 Economic Census for Business Activity*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-14 (2) Amount of added value, by regular employees class and by year of establishment (2011, SMEs, large enterprises)

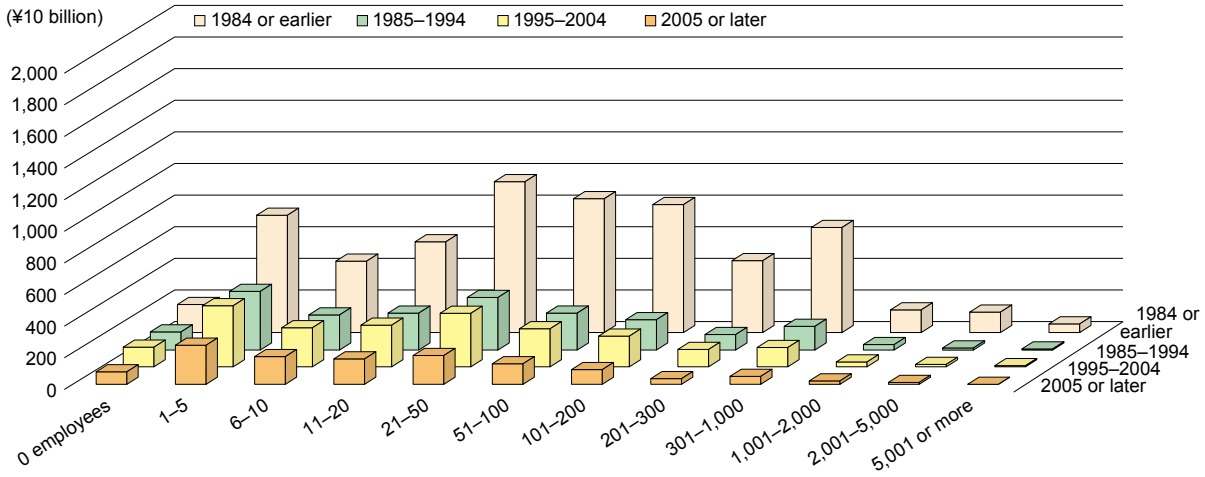
Unit: ¥10 billion

Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total	Cumulative percentage of total
0	177 (0.9%)	114 (0.5%)	123 (0.6%)	80 (0.4%)	0.6 (0.0%)	495 (2.4%)	(2.4%)
1-5	749 (3.6%)	375 (1.8%)	388 (1.9%)	248 (1.2%)	2.4 (0.0%)	1,762 (8.5%)	(10.9%)
6-10	453 (2.2%)	221 (1.1%)	249 (1.2%)	175 (0.8%)	1.2 (0.0%)	1,100 (5.3%)	(16.2%)
11-20	579 (2.8%)	234 (1.1%)	265 (1.3%)	162 (0.8%)	1.2 (0.0%)	1,240 (6.0%)	(22.2%)
21-50	957 (4.6%)	332 (1.6%)	342 (1.6%)	181 (0.9%)	2.5 (0.0%)	1,814 (8.7%)	(30.9%)
51-100	861 (4.1%)	236 (1.1%)	247 (1.2%)	128 (0.6%)	0.8 (0.0%)	1,473 (7.1%)	(38.0%)
101-200	944 (4.5%)	227 (1.1%)	238 (1.1%)	114 (0.5%)	1.1 (0.0%)	1,524 (7.3%)	(45.3%)
201-300	561 (2.7%)	133 (0.6%)	139 (0.7%)	60 (0.3%)	0.4 (0.0%)	894 (4.3%)	(49.6%)
301-1,000	1,834 (8.8%)	352 (1.7%)	318 (1.5%)	139 (0.7%)	10 (0.0%)	2,653 (12.8%)	(62.4%)
1,001-2,000	1,142 (5.5%)	145 (0.7%)	182 (0.9%)	56 (0.3%)	4.9 (0.0%)	1,531 (7.4%)	(69.8%)
2,001-5,000	1,617 (7.8%)	252 (1.2%)	170 (0.8%)	37 (0.2%)	0.0 (0.0%)	2,076 (10.0%)	(79.8%)
5,001-	3,666 (17.7%)	278 (1.3%)	100 (0.5%)	145 (0.7%)	0.0 (0.0%)	4,189 (20.2%)	(100.0%)
Total	13,540 (65.2%)	2,899 (14.0%)	2,761 (13.3%)	1,527 (7.4%)	25 (0.1%)	20,752 (100.0%)	

Fig. 1-2-15 shows the distribution of added value created by SMEs by regular employees class and by year of establishment.

Looked at by year of establishment, about 53% of added value was created by enterprises established in 1984 or earlier. Within this category, those with 21–50 and 51–100 regular employees accounted for a high percentage of the added value. Looking at the data by regular employees class, enterprises with 20 or fewer regular employees created about 41% of the added value, and those with 300 or fewer about 87%.

Fig. 1-2-15 Amount of added value, by regular employees class and by year of establishment (2011, SMEs)



Source: Recompiled from MIC/METI, *FY2012 Economic Census for Business Activity*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-15 (2) Amount of added value, by regular employees class and by year of establishment (2011, SMEs)

Unit: ¥10 billion

Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Unknown	Total	Cumulative percentage of total
0	177 (1.6%)	114 (1.0%)	123 (1.1%)	80 (0.7%)	0.6 (0.0%)	495 (4.4%)	(4.4%)
1-5	749 (6.6%)	375 (3.3%)	388 (3.4%)	248 (2.2%)	2.4 (0.0%)	1,762 (15.6%)	(10.9%)
6-10	453 (4.0%)	221 (2.0%)	249 (2.2%)	175 (1.5%)	1.2 (0.0%)	1,100 (9.7%)	(29.7%)
11-20	579 (5.1%)	234 (2.1%)	265 (2.3%)	162 (1.4%)	1.2 (0.0%)	1,240 (11.0%)	(40.6%)
21-50	957 (8.5%)	332 (2.9%)	342 (3.0%)	181 (1.6%)	2.5 (0.0%)	1,814 (16.0%)	(56.6%)
51-100	850 (7.5%)	234 (2.1%)	240 (2.1%)	126 (1.1%)	0.8 (0.0%)	1,450 (12.8%)	(69.5%)
101-200	811 (7.2%)	192 (1.7%)	196 (1.7%)	91 (0.8%)	0.1 (0.0%)	1,291 (11.4%)	(80.9%)
201-300	456 (4.0%)	96 (0.9%)	108 (1.0%)	33 (0.3%)	0.3 (0.0%)	694 (6.1%)	(87.0%)
301-1,000	668 (5.9%)	149 (1.3%)	125 (1.1%)	49 (0.4%)	0.7 (0.0%)	991 (8.8%)	(95.8%)
1,001-2,000	145 (1.3%)	36 (0.3%)	34 (0.3%)	20 (0.2%)	0.0 (0.0%)	235 (2.1%)	(97.8%)
2,001-5,000	132 (1.2%)	13 (0.1%)	14 (0.1%)	12 (0.1%)	0.0 (0.0%)	171 (1.5%)	(99.3%)
5,001-	57 (0.5%)	6.3 (0.1%)	11 (0.1%)	0.0 (0.0%)	0.0 (0.0%)	74 (0.7%)	(100.0%)
Total	6,034 (53.3%)	2,004 (17.7%)	2,095 (18.5%)	1,177 (10.4%)	10 (0.1%)	11,320 (100.0%)	

4. State of labor productivity, based on regular employees class and year of establishment

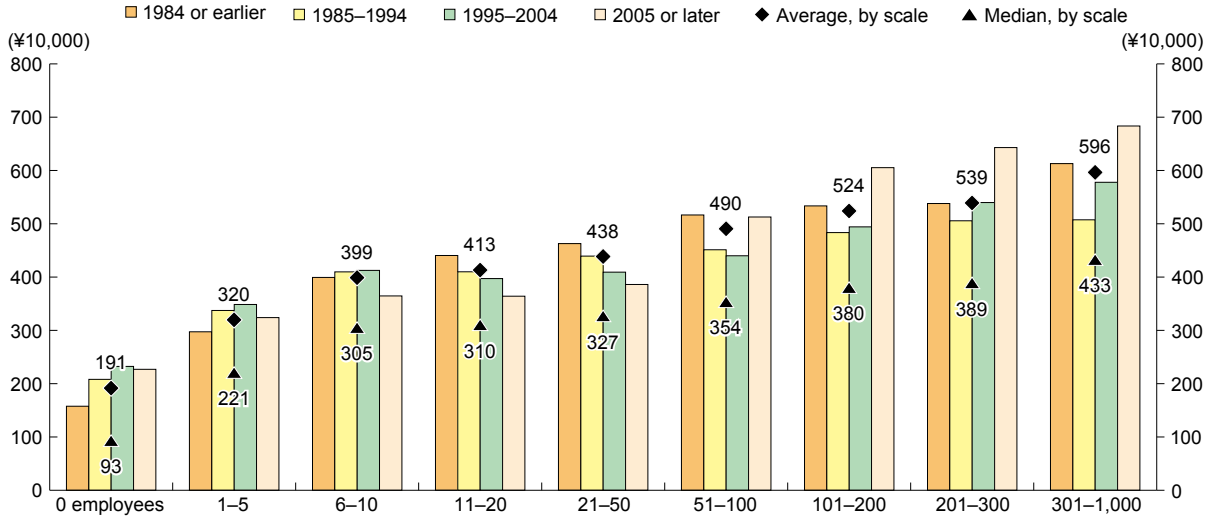
Here we analyze the state of labor productivity by regular employees class and year of establishment.

Fig. 1-2-16 analyzes the situation at enterprises in Japan overall, combining SMEs and large enterprises. It shows that the larger the regular employees class, the higher the average and median labor productivity (e.g., amount of added value per person) tends to be.[9)]

Looking at each regular employees class, among enterprises that responded "0" or "1–5," the older the company, the lower the labor productivity tended to be. The class "6–10" is a transition zone, then enterprises in the "11–20" and "21–50" classes tended to have greater labor productivity the older they were.

On the other hand, at enterprises in the "51–100" class, labor productivity at younger enterprises, those established in 2005 or later, tended to be higher than that at older enterprises. This is believed to mean that there are a certain number of enterprises that grew in scale in a short time into enterprises with high labor productivity, and that labor productivity was boosted by enterprises like these.

Fig. 1-2-16 Labor productivity, by regular employees class and by year of establishment (2011, SMEs, large enterprises)



Source: Recompiled from MIC/METI, *FY2012 Economic Census for Business Activity*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-16 (2) Labor productivity, by regular employees class and by year of establishment (2011, SMEs, large enterprises)

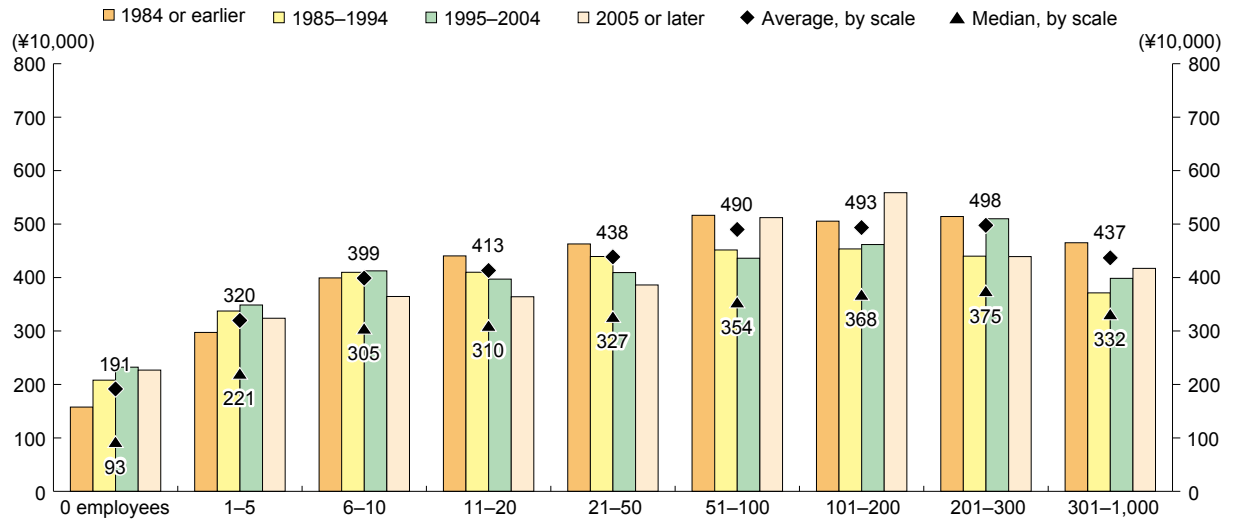
Unit: ¥10,000

Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Average, by scale	Median, by scale
0	158	208	232	227	191	93
1-5	297	337	349	324	320	221
6-10	399	410	413	365	399	305
11-20	440	410	397	364	413	310
21-50	463	439	409	386	438	327
51-100	517	451	440	513	490	354
101-200	534	483	494	605	524	380
201-300	538	506	540	643	539	389
301-1,000	613	507	578	684	596	433

9) Here, labor productivity is calculated as amount of added value divided by number of workers. The calculation aggregates only data from enterprises that indicated their sales, etc., so that added value could be calculated. The number of workers at those enterprises where added value could not be calculated (i.e., those that did not reply) was excluded to calculate results.

Fig. 1-2-17 analyzes labor productivity only at SMEs, by regular employees class. Up to the class "51–100," the greater the number of regular employees, the higher the labor productivity tended to be, but in larger classes, the change in labor productivity was smaller, and in fact labor productivity tended to decline in the "301–1,000" class.

Fig. 1-2-17 Labor productivity, by regular employees class and by year of establishment (2011, SMEs)



Source: Recompiled from MIC/METI, *FY2012 Economic Census for Business Activity*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

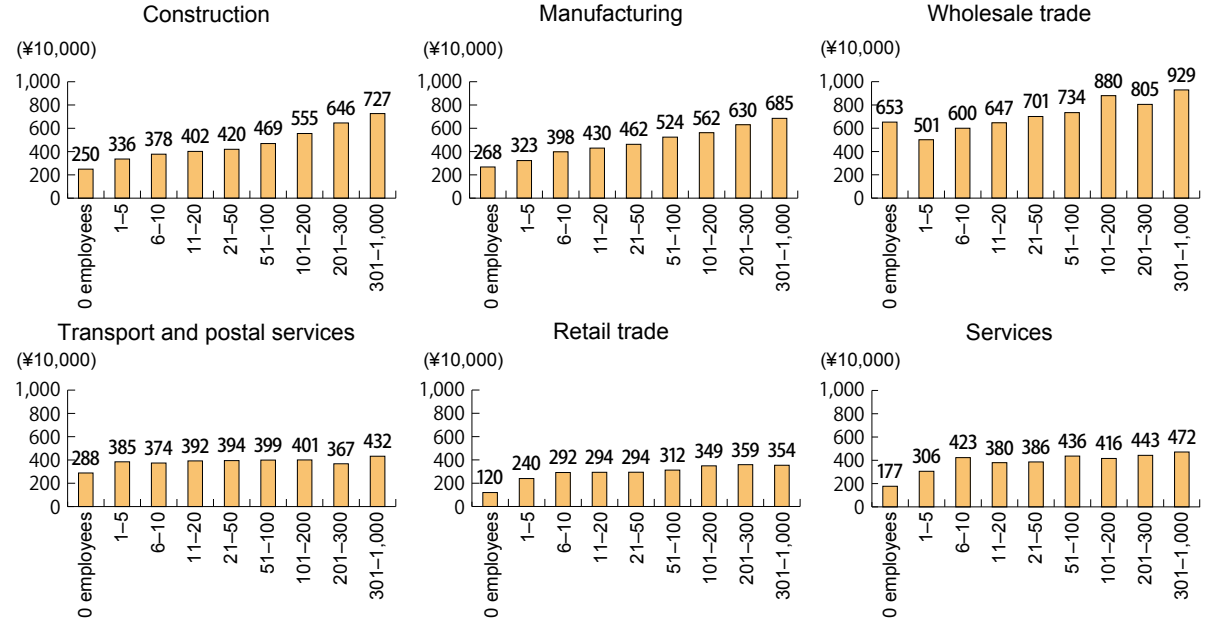
Fig. 1-2-17 (2) Labor productivity, by regular employees class and by year of establishment (2011, SMEs)

Unit: ¥10,000

Regular employees class	1984 or earlier	1985-94	1995-2004	2005 or later	Average, by scale	Median, by scale
0	158	208	232	227	191	93
1-5	297	337	349	324	320	221
6-10	399	410	413	365	399	305
11-20	440	410	397	364	413	310
21-50	463	439	409	386	438	327
51-100	516	452	436	512	490	354
101-200	505	454	462	559	493	368
201-300	514	440	510	439	498	375
301-1,000	465	371	399	417	437	332

Next, we look at labor productivity in each industry sector by regular employees class. Fig. 1-2-18 looks at labor productivity in each industry sector by regular employees class at enterprises in Japan overall, combining SMEs and large enterprises. In construction, manufacturing, and wholesale trade, labor productivity tends to be higher the larger the regular employees class, but in transport and postal services, retail trade, and services, that trend is less pronounced.

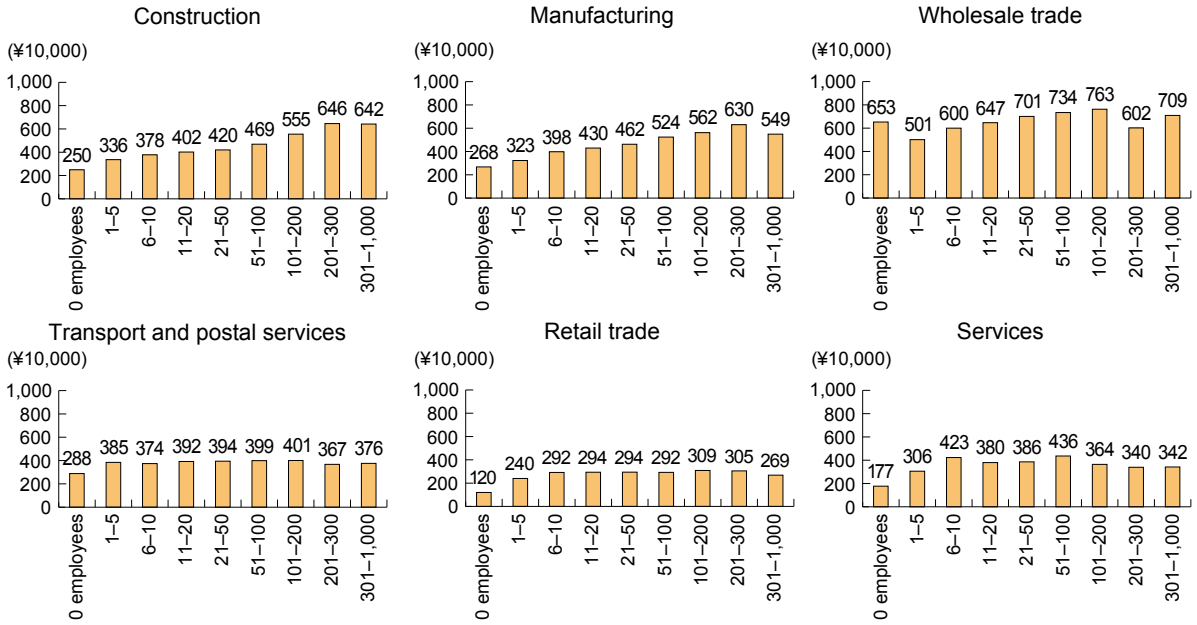
Fig. 1-2-18 Labor productivity in each industry sector, by regular employees class (SMEs, large enterprises)



Source: Recompiled from MIC/METI, *FY2012 Economic Census for Business Activity*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Fig. 1-2-19 looks at labor productivity in each industry sector by regular employees class at just SMEs. Labor productivity in each industry sector at just SMEs, as we saw in Fig. 1-2-18, peaks at 201–300 in manufacturing and at 101–200 in wholesale trade, and tends to decline at larger regular employees classes.

Fig. 1-2-19 Labor productivity in each industry sector, by regular employees class (SMEs)



Source: Recompiled from MIC/METI, *FY2012 Economic Census for Business Activity*.
Note: In Economic Censuses, the "year the business establishment opened" is the year the business establishment started doing business at its current location, not the year the company or enterprise was founded. Here, the "year of establishment" is the year the oldest business establishment of the enterprise subject to the Economic Census opened, and data is aggregated accordingly.

Section 3 Summary

This chapter started with an overview of trends in the number of SMEs and number of workers there. It showed a decline in the number of small enterprises; by industry sector, there was a decline in retail trade. A look at trends in the numbers of suspensions, closures, dissolutions, and bankruptcies shows that the number of suspensions, closures, and dissolutions, which had been on a rising trend in the past 10 years, had decreased more recently, while the number of bankruptcies has been declining for nine straight years.

Next, there was an overview of the status and changes in the number of enterprises, the number of workers they have, and the added value they create, based on the regular employees class and the year of establishment. We found that enterprises of regular employees class of five or fewer made up about 80% of all enterprises, and in terms of enterprise history, enterprises with five or fewer regular employees that were established in 1984 or earlier were more than 30% of the total. On the other hand, looking at changes in the number of enterprises between 2009 and 2014, there was a big decline in the number of enterprises with five or fewer regular employees that were established in 1984 or earlier.

Next, looking at the structure of the number of workers, we found that enterprises of regular employees class of 20 or fewer accounted for about 30% of all employees, and those of regular employees class of 100 or fewer made up about 50%. Breaking down changes in the number of workers between 2009 and 2014, the number of workers has declined steeply at enterprises established in 1984 or earlier, but also risen sharply at those established in 2005 or later, indicating that younger enterprises create many jobs.

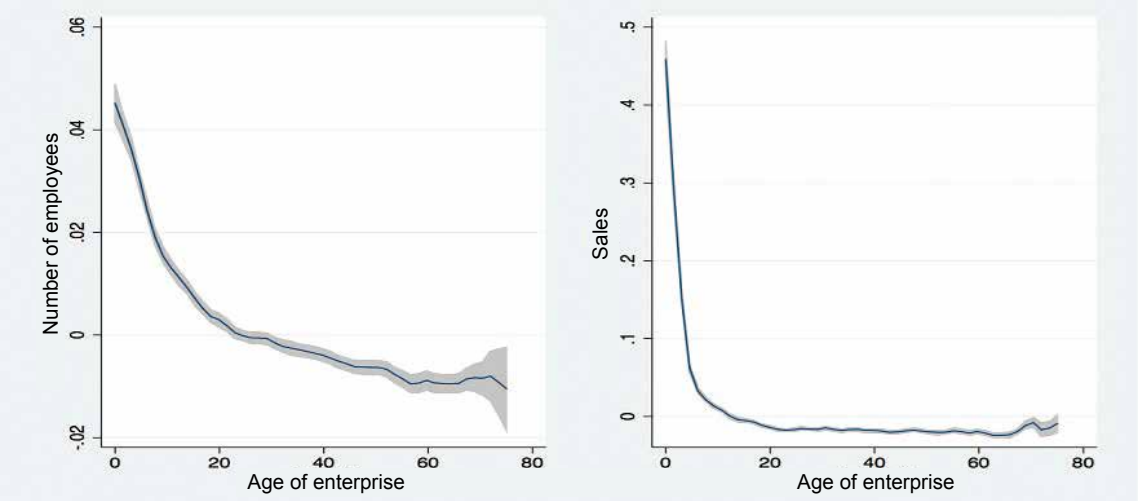
Looking at the structure of added value, we found that enterprises of regular employees class of 20 or fewer created about 20% of added value, and when the regular employees classes up to 300 or fewer were included, the proportion was about 50%.

Finally, we analyzed the labor productivity of enterprises, based on the regular employees class and years of history. The analysis shows that the larger the regular employees class, the higher the average and median labor productivity tends to be. Looked at by industry sector, however, in construction, manufacturing, and wholesale trade, labor productivity is higher the larger the regular employees class, but in transport and postal services, retail trade, and services, that trend is less pronounced.

Column 1-2-2 Enterprise growth factors and inter-enterprise networks

Determining what factors regulate enterprise growth is an important question in terms of policy, and there is also plenty of research on that question academically. Such research that focuses on enterprise age gets a lot of attention, and research by Haltiwanger et al. is the most cited article in The Review of Economics and Statistics. Their paper focuses on job expansion as an enterprise growth factor. It concludes that growth at younger enterprises has a high macro job creation effect. This suggests that if the goal of policy is to promote job creation, focusing on enterprise age and supporting younger enterprises would be effective. Similarly in Japan, the younger the enterprise, the greater the growth rate in terms of number of employees and the greater the job creation effect. It has also been found that younger enterprises expand their "earning power" through increased sales as a sign of their enterprise growth (Fig. Column 1-2-2 (1)). In Japan, however, there are few market entries and exits, which means that enterprises are getting older. As a result, the macro job creation effect and "earning power" expansion effect that young enterprises bring would seem limited.

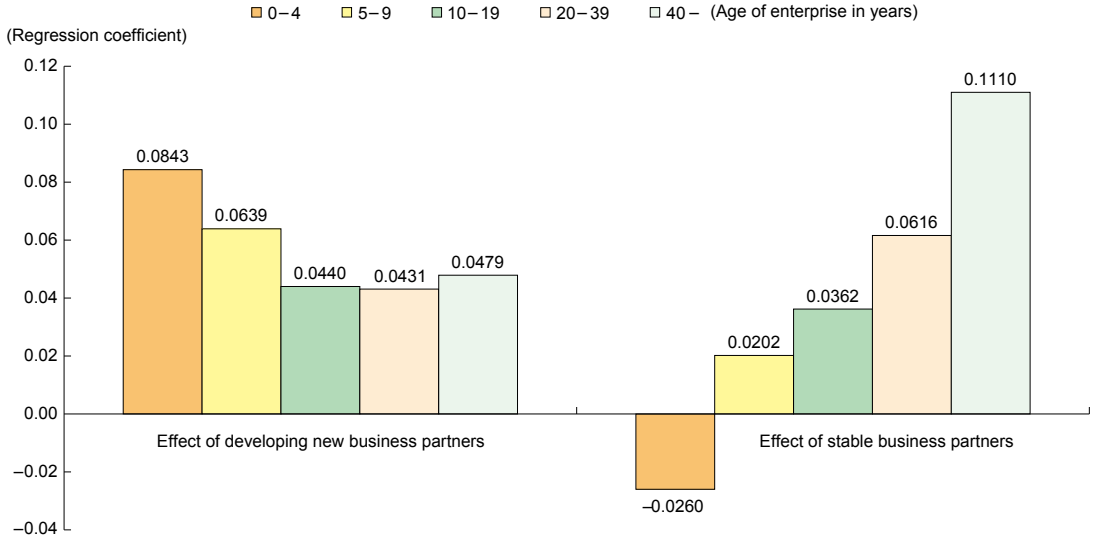
Fig. Column 1-2-2 (1) Enterprise age and growth rate[10)]



What kind of enterprise growth policies would be effective when enterprises are growing older like this? A research project by the Research Institute of Economy, Trade and Industry (RIETI) is doing a multi-faceted analysis on the factors that regulate enterprise growth. This analysis shows a strong correlation between enterprise growth and inter-enterprise networks, but the nature of that correlation varies by enterprise age. For younger enterprises, developing new business partners is important, but at older enterprises, stable business relationships lead to enterprise growth (Fig. Column 1-2-2 (2)). This suggests that supporting the development of business relationships in ways aligned to enterprises' ages would be effective.

10) Fujii, Saito and Senga (2017) analysis results.

Fig. Column 1-2-2 (2) Effect of inter-enterprise networks on enterprise growth, by enterprise age[11)]



Additionally, in the last 10 years, the environment that SMEs face has undergone great structural changes. Enterprises are growing older, and so are their representatives. The problem of finding successors at SMEs in a society with a declining birthrate and aging population has been pointed out, and as this problem develops, enterprise representatives are growing older. According to Ogura and Saito (2018), the aging of their representatives inevitably leads some enterprises to exit the market and puts shackles on enterprise growth. As the age of the representative rises, the more inflexible inter-enterprise business relationships become and the more difficult it becomes to develop new business relationships.

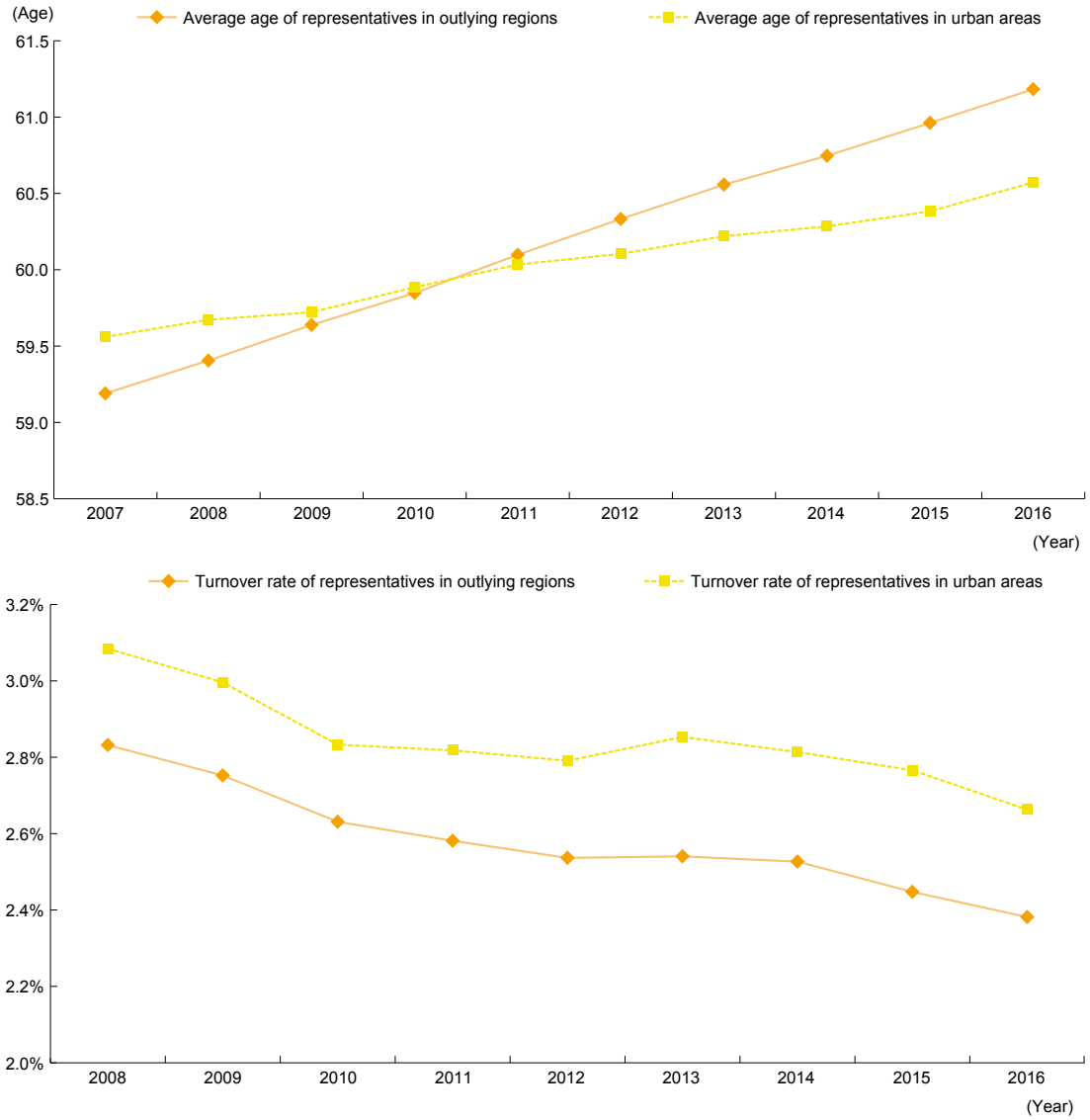
Further, a comparison of urban areas and outlying regions[12)] shows that the aging of representatives is further along in the outlying regions (Fig. Column 1-2-2 (3)). It is inferred that representative turnover happens infrequently in the outlying regions, which causes the age of the representative to rise further. According to Ogura and Saito (2018), differences are observed between urban areas and outlying regions in terms of inter-enterprise networks. It has been shown that in the outlying regions, chain reactions of enterprise exits from the market can happen easily. It is inferred that in the outlying regions, enterprises are pulled into exiting the market if a business partner exits the market. The low density of enterprises means there are no other enterprises nearby to replace partners leaving the market, and developing new business partners is difficult. Support appropriate to the locality is also important in terms of business relationship development support.

The research findings mentioned here are an analysis of enterprise-level business relationship data from Tokyo Shoko Research, Ltd. Work to build a database began 10 years ago. Now, it is a world-class data set that academic researchers can access. In a project of the Ministry of Economy, Trade and Industry and the SME Agency in cooperation with RIETI, research findings with high added value academically are being accumulated. A government-academic partnership for evidence-based policy making (EBPM) based on these research findings is moving forward. Further analysis and collaboration are expected going forward.

11) Prepared in FY2017 research contracted out by SME Agency and based on Fujii, Saito and Senga (2017). SME Agency collaborates with Research Institute of Economy, Trade and Industry (RIETI) to perform analysis probing changes in the management environment in the next 10 years and the state of policy, based on structural changes affecting SMEs in the past 10 years.

12) Here, "urban areas" is defined as Tokyo Metropolis, Kanagawa Prefecture, Saitama Prefecture, Chiba Prefecture, Aichi Prefecture, Osaka Prefecture, and Kyoto Prefecture. "Outlying regions" is defined as all localities in Japan other than the urban areas. The analysis uses data from Tokyo Shoko Research. The number of data points varies each year, but in 2016 they included 542,854 enterprises in urban areas and 738,586 in outlying regions.

Fig. Column 1-2-2 (3) Average age of representative and representative turnover rate in urban areas and outlying regions[13)]



13) Ogura and Saito (2018) analysis results.

Chapter 3

Labor productivity of SMEs

As we confirmed in Chapter 1, the circumstances surrounding SMEs are improving, such as the achievement of record high ordinary profits. On the other hand, SMEs are also facing problems such as a serious shortage of labor and concerns about stagnating labor productivity.

As the population is expected to decrease further, it is important for the growth of the Japanese economy that SMEs increase labor productivity and strengthen their earning power.

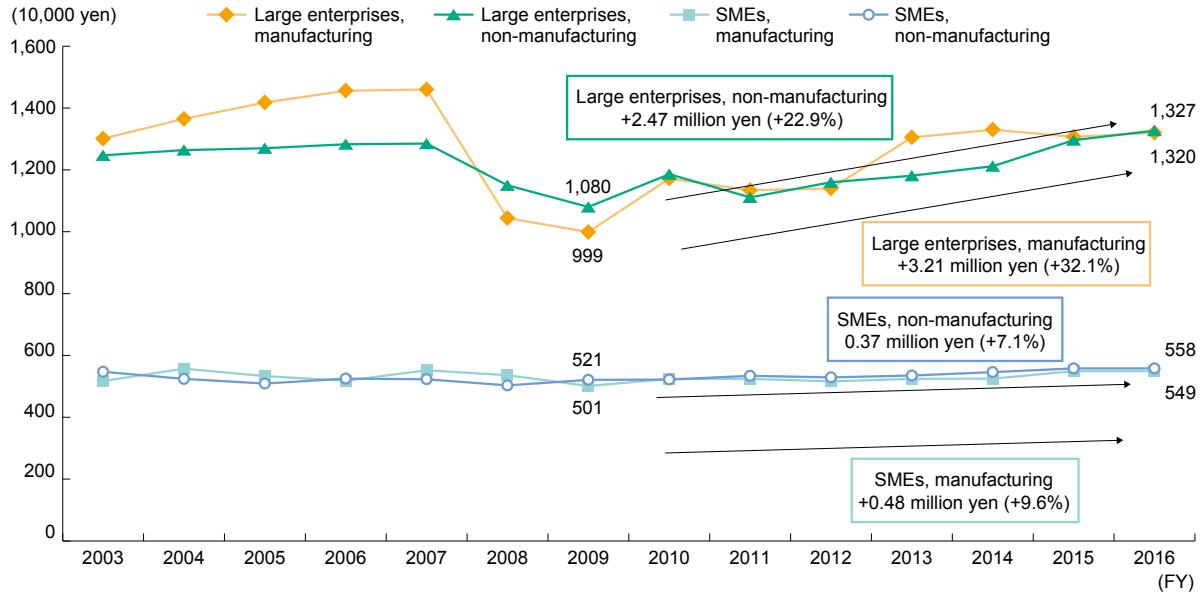
In this chapter, we will focus on the labor productivity of SMEs and analyze their current situation and the relationship with enterprise behavior.

Section 1 Changes in labor productivity of SMEs

1. Current status of labor productivity of SMEs

First, we will confirm the change in value added per employee (labor productivity) by enterprise size (Fig. 1-3-1). Looking at large enterprises, the value added per employee fell dramatically after the Lehman crisis, but has generally been on a recovery trend thereafter. On the other hand, looking at SMEs shows that value added per employee has been consistently flat, and since 2009 the disparity in value added per employee of large enterprises and of SMEs has continued to expand.

Fig. 1-3-1 Added value per employee (labor productivity), by enterprise size



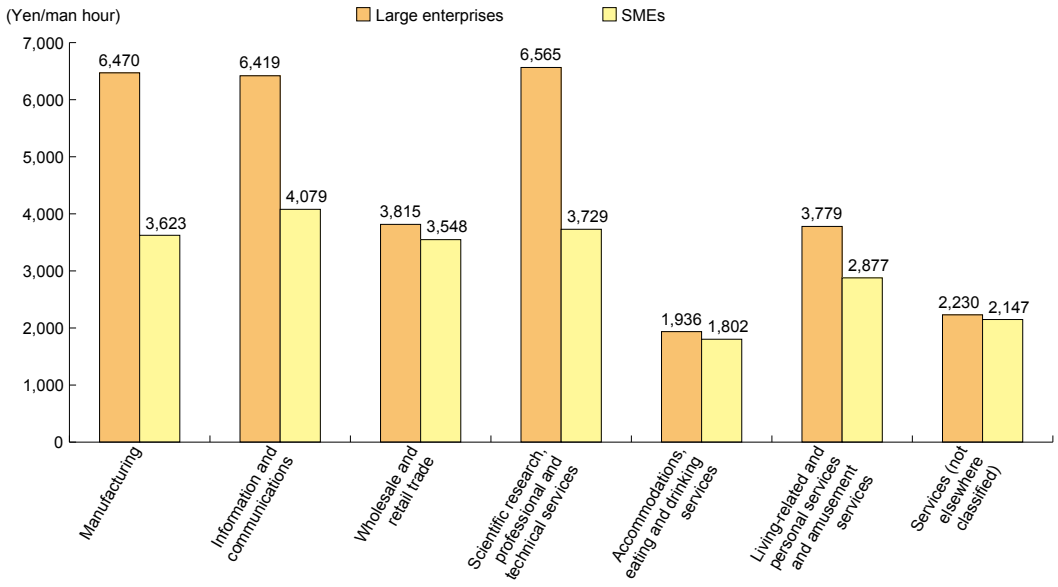
Source: MOF, *Financial Statements Statistics of Corporations by Industry, Annually*.
Notes: 1. Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of less than ¥100 million.
2. Prior to the 2006 survey, Value added = Net operating profit (Operating profit – Interest paid, etc.) + Officer salaries + Employee salaries + Social welfare expenses + Interest paid + Property and real estate rental fees + Taxes and public charges, and from the 2007 survey onwards, bonuses to directors as well as employee bonuses have been added.

Next, we will look at the value added per hour of employee working hours (labor productivity per hour). Due to constraints in the statistical data, it is difficult to accurately calculate hourly labor productivity of SMEs in accordance with the definition of SME under the Small and Medium-sized Enterprise Basic Act, but in this chapter we will try to estimate the labor productivity of SMEs using METI's *Basic Survey of Japanese Business Structure and Activities* and the SME Agency's *Basic Survey of Small and Medium Enterprises*, and so on.[1)]

First, Fig. 1-3-2 shows the result of calculating the labor productivity per hour by enterprise size for different industries, using METI's *Basic Survey of Japanese Business Structure and Activities*, etc. Although the difference between large enterprises is slight in accommodations, eating and drinking services, as well as services (not elsewhere classified), we can see that the level of labor productivity per hour of SMEs in all seven industries shown here is lower than that of large enterprises.

1) Since it is not possible to obtain data on working hours for each enterprise in the *Basic Survey of Japanese Business Structure and Activities* and the *Basic Survey of Small and Medium Enterprises*, we obtained the working hours by industry category, by large enterprise/SME, and by type of employment for each year using the *Basic Survey on Wage Structure*, and applied them uniformly. Since we assumed that the respective per capita working hours of general regular workers and part-time regular workers of large enterprises (or SMEs) belonging to the same industry category are the same, if the per capita working hours of a certain enterprise are fewer than the industry average, care must be taken that the labor input of that enterprise is calculated excessively (labor productivity is underestimated). Moreover, in the calculation of working hours from the *Basic Survey on Wage Structure*, we considered SMEs with 99 or less regular employees in wholesale trade, retail trade, scientific research, professional and technical services, accommodations, eating and drinking services, living-related and personal services and amusement services, as well as services (not elsewhere classified), and SMEs with 299 or less regular employees in construction, manufacturing, information and communications, transport and postal services, as well as real estate and goods rental and leasing.

Fig. 1-3-2 Level of labor productivity per hour as seen by enterprise size

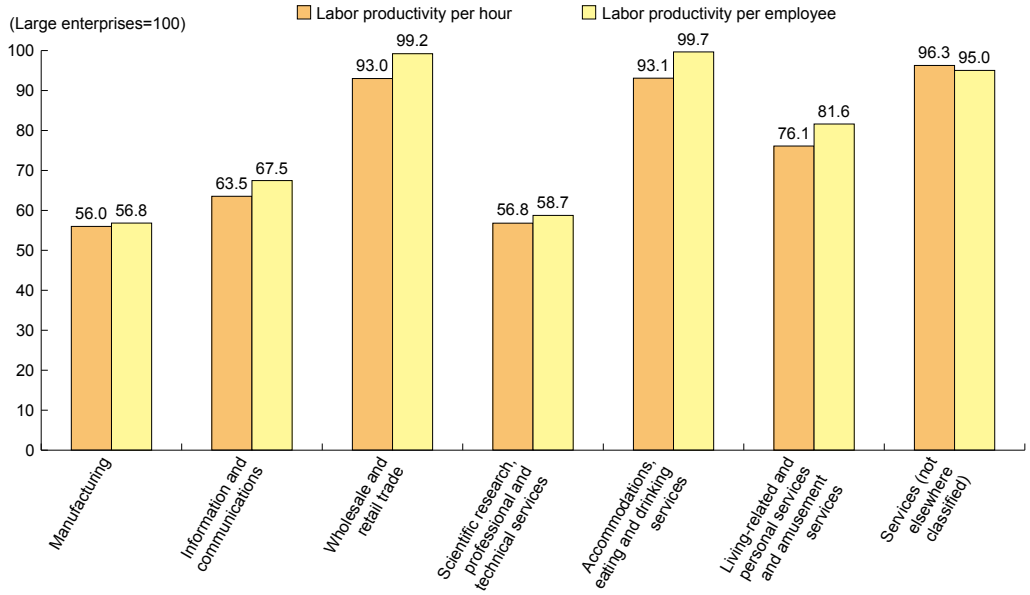


Sources: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities* and MHLW, *Basic Survey on Wage Structure.*

Notes: 1. Indicates the value added per hour of working hours in fiscal 2015.
2. Value added = Operating profit + (Total wages + Social welfare expenses) + Property and real estate rental fees + Taxes and public charges + Depreciation expenses

Next, in order to compare the difference between labor productivity per hour and labor productivity per capita, the labor productivity of SMEs is standardized using the labor productivity of large enterprises as 100. Although a significant difference cannot be seen when confirmed respectively (Fig. 1-3-3), we can confirm that the difference with large enterprises in labor productivity per hour is greater in six of the seven industries shown here.

Fig. 1-3-3 Gap between labor productivity of large enterprises and SMEs as seen by labor productivity per hour/labor productivity per capita

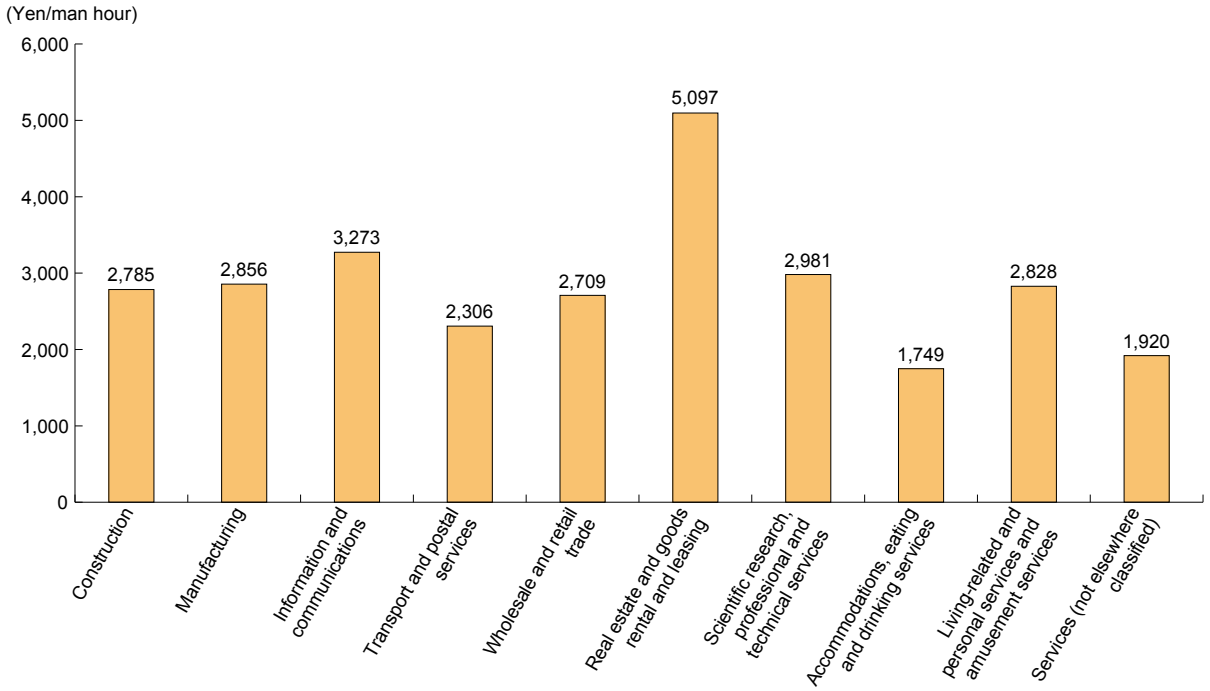


Sources: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities* and MHLW, *Basic Survey on Wage Structure.*

Note: In regards to the value added per hour of working hours and the value added per employee in fiscal 2015, the labor productivity of SMEs has been indexed using the labor productivity of large enterprises as 100 for each respective industry.

Furthermore, Fig. 1-3-4 shows the result of re-editing and processing the *Basic Survey of Small and Medium Enterprises*. Labor productivity for SMEs that is closer to reality can be calculated from the data in the *Basic Survey of Small and Medium Enterprises*, since its scope includes small enterprises and sole proprietors, which the *Basic Survey of Japanese Business Structure and Activities* does not. Comparing Fig. 1-3-2 and Fig. 1-3-4, we can see that the labor productivity of SMEs is lower according to the *Basic Survey of Small and Medium Enterprises*. This suggests that the labor productivity of small-scale enterprises not subject to the *Basic Survey of Japanese Business Structure and Activities* is relatively low[2].

Fig. 1-3-4 Level of labor productivity per hour in SMEs



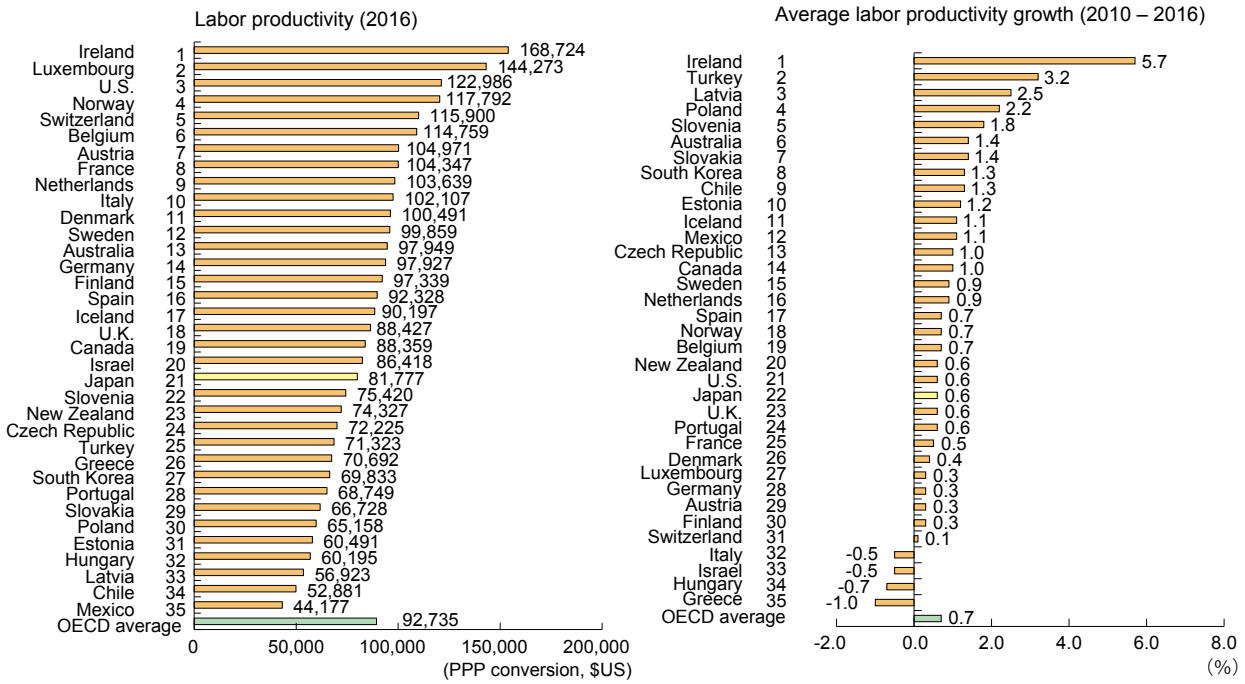
Sources: Recompiled from SME Agency, *Basic Survey of Small and Medium Enterprises* and MHLW, *Basic Survey on Wage Structure*.
Notes: 1. Indicates the value added per hour of working hours in fiscal 2015.
2. Value-added = Labor costs + Depreciation costs of cost of sales + Personnel costs + Rent + Depreciation costs of selling and general administrative expenses + Employee training costs + Taxes and public charges + Interest and discount expense + Ordinary profit

As we have seen above, the disparity in labor productivity between SMEs and large enterprises was also confirmed when looking at labor productivity per hour, and in many industries, we find that the disparity is bigger when looking at labor productivity per hour compared to looking at labor productivity per capita. As SMEs proceed with efforts towards improving productivity, it will be important for them to have greater awareness of labor productivity per hour.

Finally, we made an international comparison of Japan's labor productivity as well as its average increase in labor productivity between 2010 and 2016 among the OECD member countries in 2016 (Fig. 1-3-5). Looking first at labor productivity, Japan is ranked 21st among the 35 member countries and is below the OECD average, being at a level which is about half that of top-ranked Ireland. Even when looking at the average increase in labor productivity, Japan ranks 22nd among the 35 member countries with a rate of 0.6%, also below the average.

2) It should be noted that the *Basic Survey of Japanese Business Structure and Activities* and the *Basic Survey of Small and Medium Enterprises* cannot be compared in simple terms because the scope of the surveys are different in some industry categories.

Fig. 1-3-5 Labor productivity of OECD member countries



Source: Japan Productivity Center, *Productivity Trends in Japan 2017*.
Notes: 1. Overall labor productivity is calculated as GDP / number of employees and converted to US dollars using purchasing power parity (PPP).
2. The necessary data for the above have been supplemented mainly by OECD statistical data and data from the statistics bureau in each country.

2. Classification and characteristics of labor productivity

Next, we will analyze the changes in the number of employees, value added[3] and labor productivity[4] of SMEs over a 10-year period from 2006, using about 11,000 items of data from the *Basic Survey of Japanese Business Structure and Activities*[5]. In the analysis we confirmed the distribution by plotting the rate of change in number of employees over the 10 years on the horizontal axis, and the rate of change in value added on the vertical axis[6]. In the distribution of the rate of change of employees and the rate of change in value added, the 45-degree line is a line showing whether the rate of change in value added exceeds the rate of change in employee number—in other words, it is a line that indicates a change in labor productivity. If a plotted point exceeds the 45-degree line, this is showing a situation where the rate of change in value added exceeds the rate of change in employee number, which is to say that the distribution is showing a region where labor productivity is improving. In the following, we classified changes in the productivity of an enterprise into six regions by utilizing three axes—the rate of change in number of employees on the horizontal axis, the rate of change in value added on the vertical axis, and the partition of labor productivity improvement on the 45-degree line—and then analyzed the results (Fig. 1-3-6).

Region [1] "Efficient Growth" is a region in which the growth rate in the value added exceeds the growth rate in the number of employees, while both the number of employees and value added are increasing, and labor productivity is improving. Enterprises classified as

3) Value added = Operating profit + (Total wages + Social welfare expenses) + Property and real estate rental fees + Taxes and public charges + Depreciation expenses
4) Labor productivity = Value added / Number of employees
5) The *Basic Survey of Japanese Business Structure and Activities* conducted by the Ministry of Economy, Trade and Industry is for enterprises with 50 or more workers and capital or investment of ¥30 million or more. As a panel we analyzed enterprise data from 2006 (*2007 Basic Survey of Japanese Business Structure and Activities*) to 2015 (*2016 Basic Survey of Japanese Business Structure and Activities*).
6) We referenced Nagayama (2017) for the approach and methodology of this analysis. Calculation formulas for the rate of change in the number of employees and the rate of change in value added analyzed using the *Basic Survey of Japanese Business Structure and Activities* in this section are as follows.
Rate of change in the number of employees = (Number of employees in 2015 – Number of employees in 2006) / Number of employees in 2006
Rate of change in value added = (Value added in 2015 – Value added in 2006) / Value added in 2006

"Efficient Growth" in Region [1] have improved labor productivity while expanding the scale of employees, and are considered to be achieving sound corporate growth.

Region [2] "Efficiency" is a region where although the growth rate in the number of employees is decreasing, the growth rate in the value added is increasing, and labor productivity is improving. It is anticipated that the labor force will decline in the future, and aiming for Region [2], "Efficiency" can be considered one option for raising labor productivity under a business environment where it will be difficult to increase the number of employees.

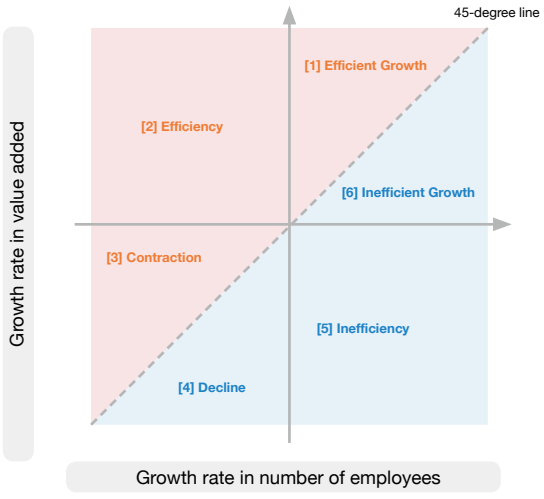
Region [3] "Contraction" is a region where although both the number of employees and value added are decreasing, the rate of decrease in the value added is not as great as the rate of decrease in the number of employees, and is therefore a region where labor productivity is improving. The regions up to this point, Region [1] "Efficient Growth," Region [2] "Efficiency," and Region [3] "Contraction," are regions where labor productivity is improving.

Continuing on, Region [4] "Decline" is a region where the rate of decrease in the amount of value added is greater than the rate of decrease in the number of employees, and labor productivity has declined. Since decreasing the number of employees and decreasing the value added runs the risk of falling into a negative cycle and proceeding further in the direction of decline, this region cannot be considered a desirable situation from the viewpoint of business continuity.

Region [5] "Inefficiency" is a region where although the number of employees is increasing, value added is decreasing, and the labor productivity is declining. One can suppose there are cases which may be temporarily classified into this region due to circumstances where the number of employees increases, for example, in conjunction with the start of a new business or when there has been implementation of M&A, but creating value added commensurate with the increase in the number of employees would likely move an enterprise into a region of improving labor productivity.

Region [6] "Inefficient Growth" is a region where both the number of employees and value added are increasing, but the growth rate in the number of employees is greater than the growth rate in the value added. It is a region where labor productivity is declining, and can be considered a region in which value added cannot be created corresponding to the increase in the number of employees. Region [4] "Decline," Region [5] "Inefficiency," and Region [6] "Inefficient Growth" are regions where labor productivity is declining.

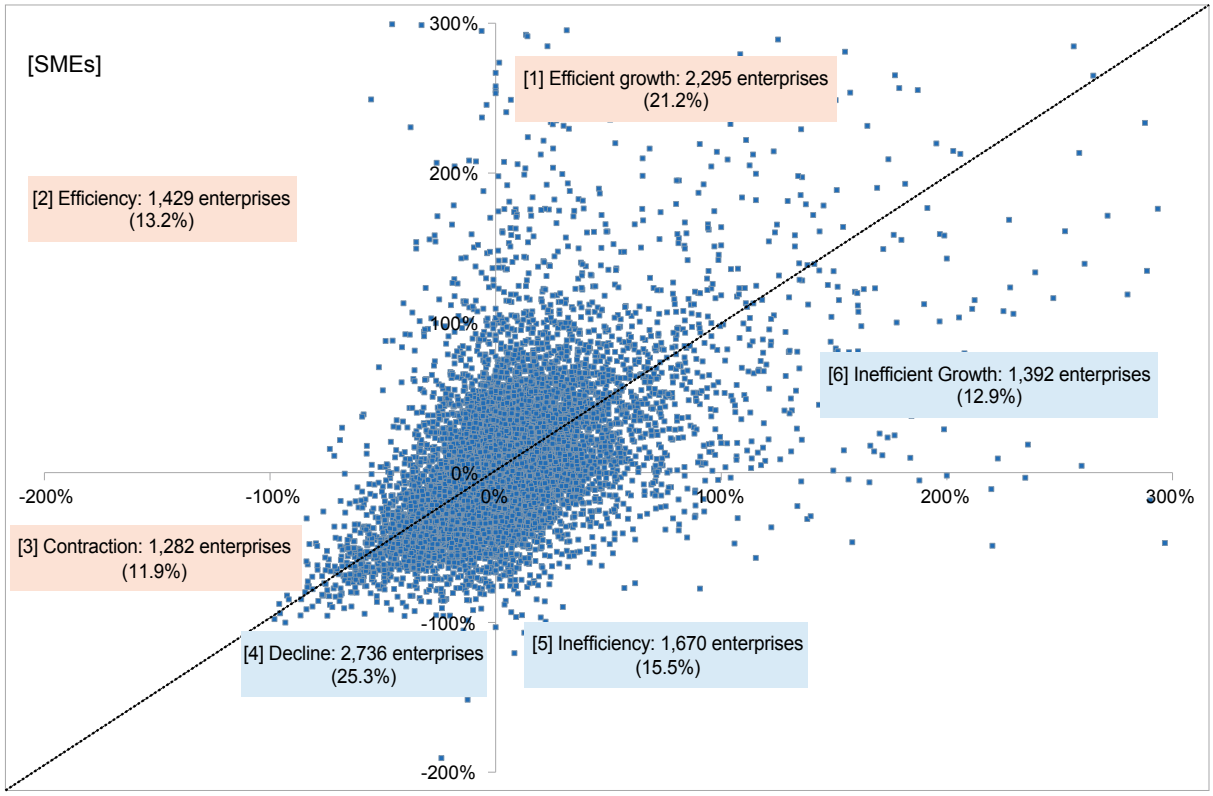
Fig. 1-3-6 Classification of productivity change (6 types)



Region	Growth rate in number of employees	Growth rate in value added	Labor productivity
[1] Efficient Growth	Increase	Increase	Improve
[2] Efficiency	Decrease	Increase	Improve
[3] Contraction	Decrease	Decrease	Improve
[4] Decline	Decrease	Decrease	Decline
[5] Inefficiency	Increase	Decrease	Decline
[6] Inefficient Growth	Increase	Increase	Decline

Fig. 1-3-7 is a scatter plot of changes in productivity of SMEs between 2006 and 2015. The percentage of the number of enterprises in Region [1] "Efficient Growth" is about 21%, which shows that they have improved labor productivity while increasing the number of employees. On the other hand, about 25% are in Region [4] "Decline," where value added has decreased more than the rate of decrease in the number of employees, and we can see that this accounts for the highest percentage among the six types.

Fig. 1-3-7 Distribution of the 6 types of productivity change (SMEs)

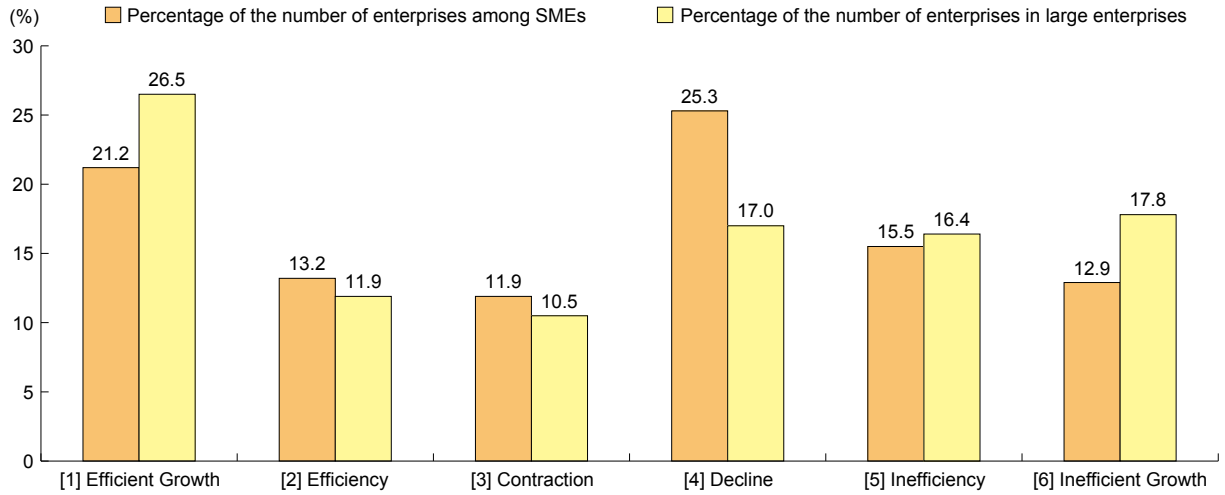


Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities*.
Notes: 1. Compiled with enterprises that continued to exist from the *2007 Basic Survey of Japanese Business Structure and Activities* up to the time of the *2016 Basic Survey of Japanese Business Structure and Activities*, and that satisfied the definition of SME under the Small and Medium-sized Enterprise Basic Act at the time of the *2016 Basic Survey of Japanese Business Structure and Activities*.
2. Partially-expanded drawing (excludes data beyond the range of -200% to 300%)

Region	Growth rate in number of employees	Growth rate in value added	Labor productivity	Percentage of enterprises
[1] Efficient growth	Increase	Increase	Improve	21.2%
[2] Efficiency	Decrease	Increase	Improve	13.2%
[3] Contraction	Decrease	Decrease	Improve	11.9%
[4] Decline	Decrease	Decrease	Decline	25.3%
[5] Inefficiency	Increase	Decrease	Decline	15.5%
[6] Inefficient Growth	Increase	Increase	Decline	12.9%

Fig. 1-3-8 shows a calculation of the percentage of the six types of productivity change among large enterprises during the same period (between the two points in 2006 and 2015) and a comparison of the percentage of SMEs in Fig. 1-3-7 mentioned above. Comparing the percentages, we can see that a higher percentage of large firms are in Region [1] "Efficient Growth" and Region [6] "Inefficient Growth," while a higher percentage of SMEs are in Region [4] "Decline." As determined in Fig. 1-3-1, we confirmed that the labor productivity of SMEs as a whole has been stagnating and that the disparity with large enterprises is expanding, yet we can see that even in individual enterprises, the percentage of enterprises that are experiencing reduced labor productivity is high compared to large enterprises.

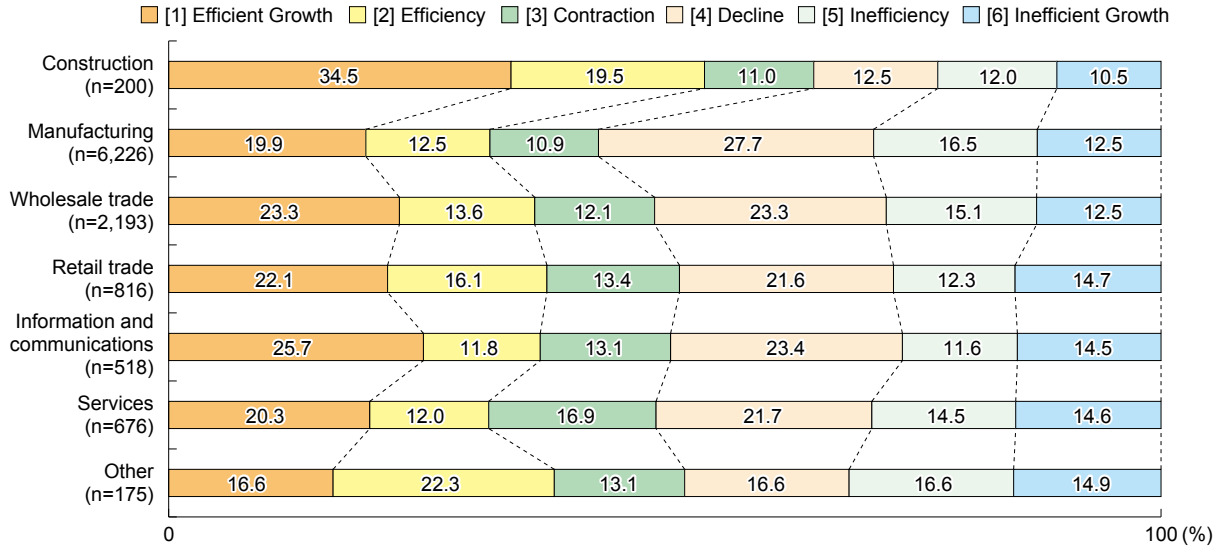
Fig. 1-3-8 Percentage comparison for each of the 6 types of productivity change



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities*.
Note: Compiled with enterprises that continued to exist from the *2007 Basic Survey of Japanese Business Structure and Activities* up to the time of the *2016 Basic Survey of Japanese Business Structure and Activities*, and that satisfied the definition of SME under the Small and Medium-sized Enterprise Basic Act at the time of the *2016 Basic Survey of Japanese Business Structure and Activities*.

Next, we will look at the composition of the six types of productivity change by industry (Fig. 1-3-9). The industry with the largest percentage in Region [1] "Efficient Growth" was construction, followed by information and communications, and then by wholesale trade. Meanwhile, the manufacturing industry had the greatest percentage in Region [4] "Decline," followed by information and communications, and by wholesale trade.

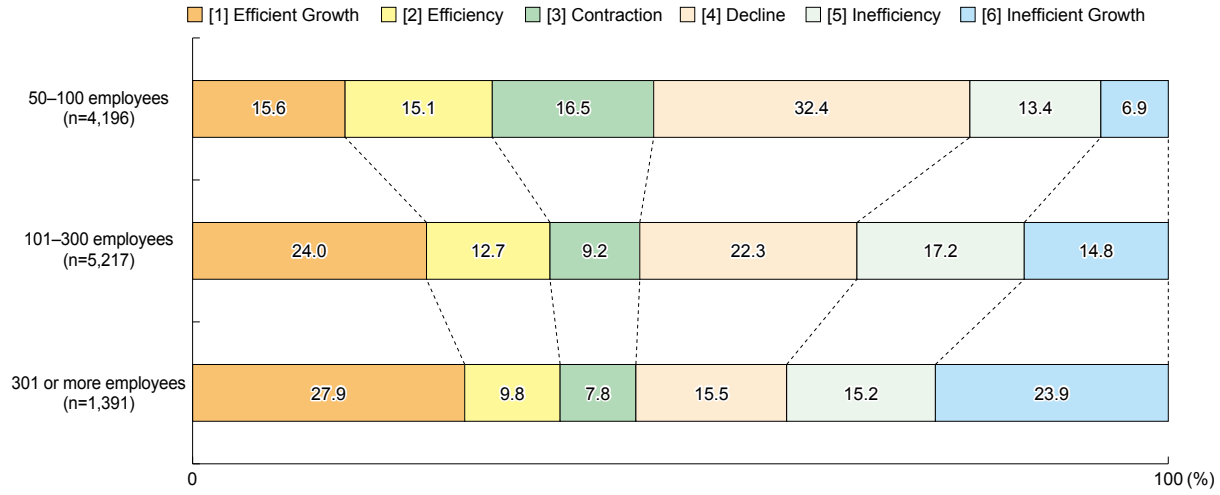
Fig. 1-3-9 Percentage of the 6 types of productivity change by industry (SMEs)



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities*.
Note: Compiled with enterprises that continued to exist from the *2007 Basic Survey of Japanese Business Structure and Activities* up to the time of the *2016 Basic Survey of Japanese Business Structure and Activities*, and that satisfied the definition of SME under the Small and Medium-sized Enterprise Basic Act at the time of the *2016 Basic Survey of Japanese Business Structure and Activities*.

Next, we will look at the composition of the six types of productivity change by employee size (Fig. 1-3-10). A high percentage of enterprises with 301 or more employees are in Region [1] "Efficient Growth" and Region [6] "Inefficient Growth," whereas in the 50–100 employees segment, which is the smallest segment, we find that a high percentage of enterprises are in Region [3] "Contraction" and Region [4] "Decline."

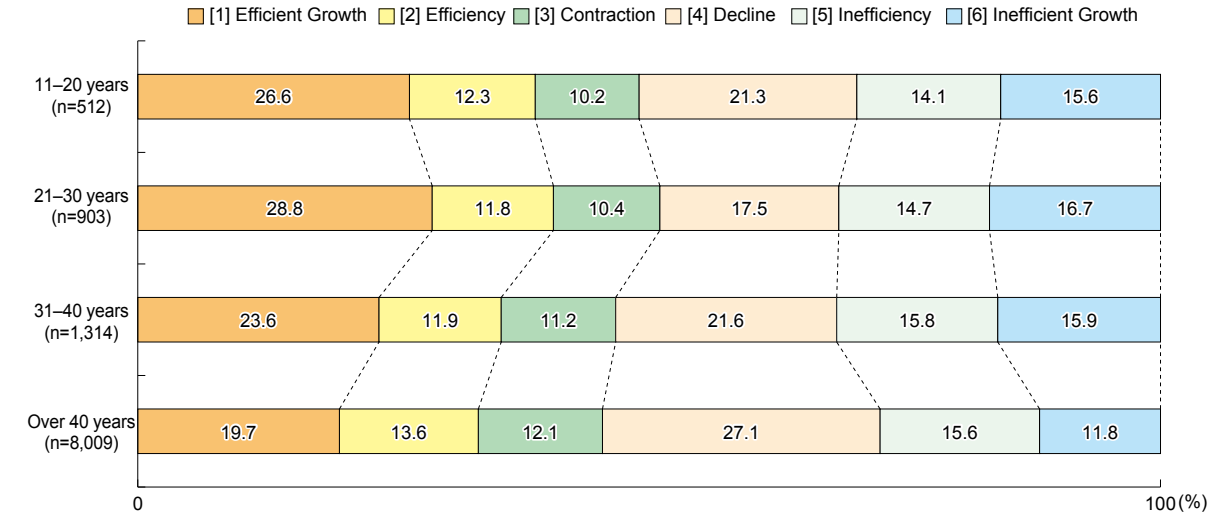
Fig. 1-3-10 Percentage of the 6 types of productivity change by size (SMEs)



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities*.
Note: Compiled with enterprises that continued to exist from the *2007 Basic Survey of Japanese Business Structure and Activities* up to the time of the *2016 Basic Survey of Japanese Business Structure and Activities*, and that satisfied the definition of SME under the Small and Medium-sized Enterprise Basic Act at the time of the *2016 Basic Survey of Japanese Business Structure and Activities*.

Finally, we will look at the composition of the six types of productivity change by business history (Fig. 1-3-11). Enterprises with a business history of 21 to 30 years compose the largest percentage in Region [1] "Efficient Growth," but as the business history gets longer, from 31 to 40 years and over 40 years, we can see that there is a tendency for the proportion in Region [1] "Efficient Growth" to decrease, and the proportion in Region [4] "Decline" to be higher.

Fig. 1-3-11 Percentage of the 6 types of productivity change by business history (SMEs)



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities*.
Note: Compiled with enterprises that continued to exist from the *2007 Basic Survey of Japanese Business Structure and Activities* up to the time of the *2016 Basic Survey of Japanese Business Structure and Activities*, and that satisfied the definition of SME under the Small and Medium-sized Enterprise Basic Act at the time of the *2016 Basic Survey of Japanese Business Structure and Activities*.

As we have seen in this section, three types of improvement in labor productivity were confirmed for enterprises that have increased labor productivity in the past 10 years. There are some enterprises like those in Region [1] "Efficient Growth," seeking to increase the growth rate in value added more than the growth rate in the number of employees, thereby improving labor productivity, enterprises as in Region [2] "Efficiency" that have improved labor productivity while reducing the growth rate in the number of employees, and enterprises as in Region [3] "Contraction," where although both the growth rate in the number of employees and value added are decreasing, the rate of decrease in the value added is low, and as a result, labor productivity is increasing.

In the next section, we will analyze what kind of investment activity and management initiatives enterprises that improved labor productivity have undertaken, based on information obtained in a questionnaire survey.

Section 2 Labor productivity and enterprise behavior of SMEs

In this section, we will analyze what kind of enterprise behavior and investment activities an enterprises falling under each of the six types of productivity change seen in the previous section have undertaken, based on a questionnaire survey[7] and the contents of its analysis[8].

1. The 6 types of productivity change and enterprise behavior

First, we will look at what kind of differences there are between enterprises that are seeing an increase or decrease in their number of employees and value added, with regards to the status of investment activity such as machinery/capital investment, IT investment, R&D investment, and M&A, as well as various management initiatives such as human resource development, increased efficiency, and outsourcing.

Fig. 1-3-12 shows the status of investment activity and management initiatives as seen by the six types of productivity change from 2007 to 2016[9]. Comparing Region [1] "Efficient Growth," where labor productivity is improving while enterprises are increasing the number of employees[10], and Region [6] "Inefficient Growth," where enterprises are increasing the number of employees and the value added[11] is also increasing, yet labor productivity is not improving, we can see that in Region [1] "Efficient Growth," there are higher percentages of enterprises engaging in IT investment, R&D investment, human resource development and outsourcing.

Compared to the average, a higher percentage of enterprises classified as Region [2] "Efficiency" are engaging in human resource development and increased efficiency. In the future business environment in which the labor force is expected to decline, it will be difficult to increase the number of employees, and thus it will be important to increase value added and improve labor productivity while decreasing the number of employees as in Region [2] "Efficiency." In order to improve labor productivity under the future environment of a labor shortage, it is important to proactively engage in human resource development and increased efficiency.

7) Accenture Japan Ltd conducted this questionnaire survey (response rate: 24.2%; number of valid responses: 2,159 cases) which targeted 10,000 SMEs in November 2017 (survey cooperation: Research Institute of Economy, Trade and Industry; Tokyo Shoko Research, Ltd.). This questionnaire survey targeted medium-sized enterprises with 21 or more employees.

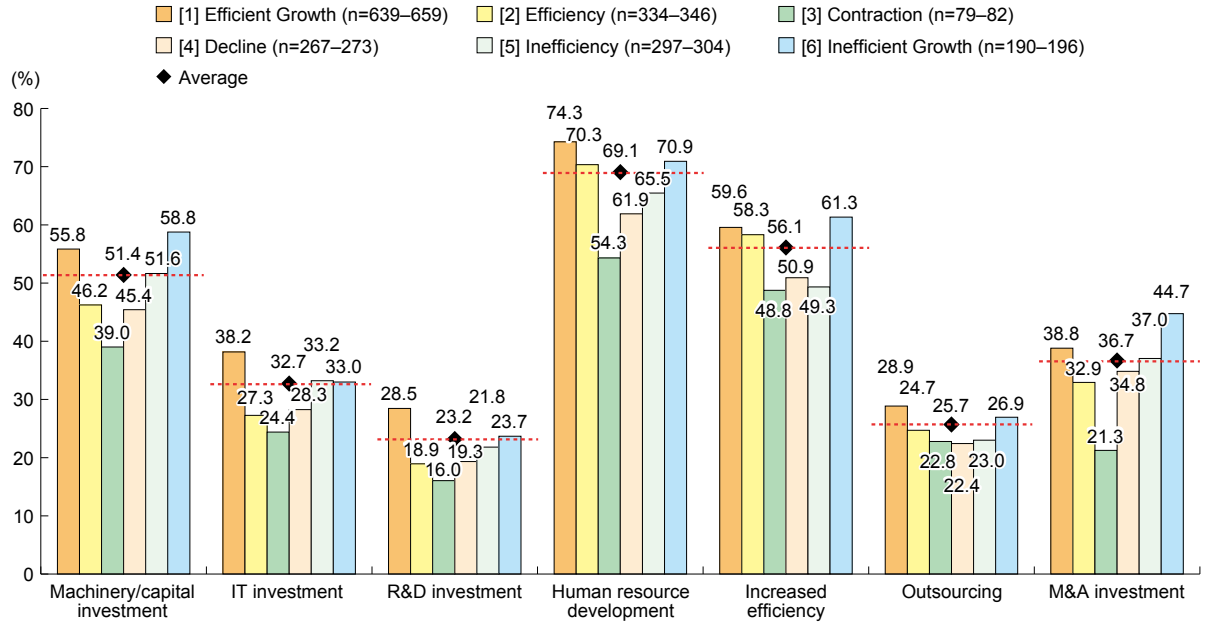
8) This was verified based on the survey results analyzed by Accenture Japan Ltd. Research and analysis in the Fiscal 2017 Commission for Structural Analysis of SMEs in Japan and Projections of Structural Changes was carried out in cooperation with a project team consisting of experts such as university professors and researchers of the Research Institute of Economy, Trade and Industry. For the analysis of corporate data, we used enterprise information data and financial information data (period 2007–2016) from Tokyo Shoko Research, Ltd.

9) In this analysis, enterprises located on the borderline of each region (enterprises where the rate of change in the number of employees is zero, the rate of change in value added is zero, or the rate of change in the number of employees is equal to the rate of change in the value added, as well as enterprises where value added is zero or less at the beginning) have been excluded from analysis.

10) Rate of change in number of employees = (Number of employees in 2016 – Number of employees in 2007) / Number of employees in 2007

11) Value added = Amount of operating profit + Personnel expenses (Executive remuneration + Salary allowance + Allowance for bonuses + Retirement allowance + Provision for retirement benefits + Legal welfare expenses + Welfare expenses + Miscellaneous wages) + Taxes and public charges + Rental fees + Depreciation implementation amount
* Due to restrictions on the financial information data of Tokyo Shoko Research Co., Ltd., personnel expenses do not include labor costs described in the manufacturing cost report.
Rate of change in value added = (Value added in 2016 – Value added in 2007) / Value added in 2007

Fig. 1-3-12 6 types of change in productivity and the status of investment activity and management initiatives



Source: Accenture Japan Ltd, *Fiscal 2017 Commission for Structural Analysis of SMEs in Japan and Projections of Structural Changes Report* (March 2018).

Notes: 1. Includes enterprises that responded "every year without fail" and "almost every year" in regards to the various types of investment in the questionnaire survey, for each type of productivity change between the two points in 2007 and 2016.
2. Regarding M&A investment, excludes the number of enterprises that responded "never occurred once in the past ten years" from the number of valid responses.

2. Migration path of the 6 types of productivity change and feature analysis of enterprises

As of this point onward, we will observe and analyze how enterprises changed throughout the entire period from 2007 to 2016, from the type to which they belonged in the first half of the period from 2007 to 2012, through the latter half of the period until 2016.

Fig. 1-3-13 is a table showing, out of the 1,618 enterprises[12] that responded to the questionnaire and confirmed a change, which type of categorization they were classified in the first half of the period from 2007 to 2012[13], and also what type they changed into throughout the entire period from 2007 to the point in 2016. As a general trend, there is a strong tendency to remain in the type to which the enterprise belonged in the first half of the period.

On the other hand, about 25% of enterprises belonging to Region [2] "Efficiency," about 29% of enterprises belonging to Region [5] "Inefficiency," as well as about 37% of enterprises belonging to Region [6] "Inefficient Growth" in the first half of the period changed into Region [1] "Efficient Growth." Furthermore, approximately 34% of enterprises belonging to Region [3] "Contraction" and about 23% of enterprises belonging to Region [4] "Decline" changed to Region [2] "Efficiency."

12) Among the number of valid responses to the questionnaire, enterprises that were the target of analysis were those that could be acquired by Tokyo Shoko Research Co., Ltd. and, excluding enterprises newly established after 2007 and enterprises whose value added at the beginning was 0 or less, were enterprises for which a change in the value added could be calculated.

13) The formulas for calculating the rate of change in the number of employees and the rate of change in value added during the first half of the period from 2007 to 2012 are as follows.
Rate of change in the number of employees = (Number of employees in 2012 – Number of employees in 2007) / Number of employees in 2007
Rate of change in value added = (Value added in 2012 – Value added in 2007) / Value added in 2007

Fig. 1-3-13 Migration path over 10 years in the 6 types of productivity change

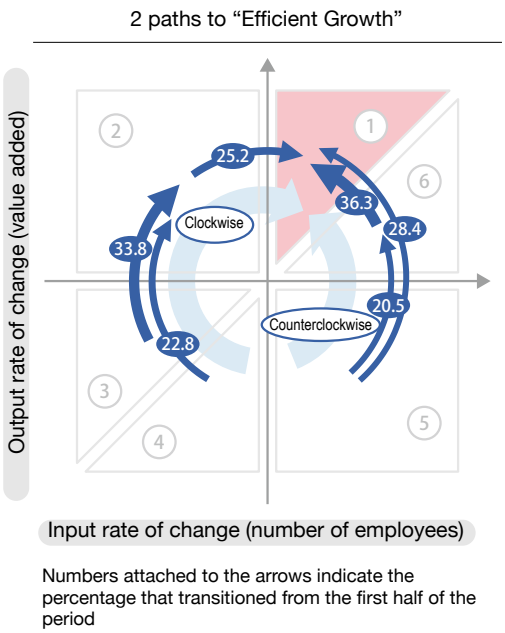
First half (2007-2012) \ Overall (2007-2016)	[1] Efficient Growth	[2] Efficiency	[3] Contraction	[4] Decline	[5] Inefficiency	[6] Inefficient Growth	Total
[1] Efficient Growth	286 enterprises (71.0%)	33 enterprises (8.2%)	2 enterprises (0.5%)	5 enterprises (1.2%)	36 enterprises (8.9%)	41 enterprises (10.2%)	403 enterprises (100%)
[2] Efficiency	75 enterprises (25.4%)	155 enterprises (52.5%)	9 enterprises (3.1%)	44 enterprises (14.9%)	7 enterprises (2.4%)	5 enterprises (1.7%)	295 enterprises (100%)
[3] Contraction	14 enterprises (18.2%)	26 enterprises (33.8%)	19 enterprises (24.7%)	15 enterprises (19.5%)	2 enterprises (2.6%)	1 enterprise (1.3%)	77 enterprises (100%)
[4] Decline	31 enterprises (9.8%)	71 enterprises (22.5%)	40 enterprises (12.7%)	142 enterprises (44.9%)	27 enterprises (8.5%)	5 enterprises (1.6%)	316 enterprises (100%)
[5] Inefficiency	109 enterprises (28.5%)	10 enterprises (2.6%)	3 enterprises (0.8%)	31 enterprises (8.1%)	154 enterprises (40.3%)	75 enterprises (19.6%)	382 enterprises (100%)
[6] Inefficient Growth	53 enterprises (36.6%)	3 enterprises (2.1%)	0 enterprise (0.0%)	0 enterprise (0.0%)	30 enterprises (20.7%)	59 enterprises (40.7%)	145 enterprises (100%)

Source: Accenture Japan Ltd, *Fiscal 2017 Commission for Structural Analysis of SMEs in Japan and Projections of Structural Changes Report* (March 2018).

Based on the above changes, we can see that there are largely two paths towards Region [1] "Efficient Growth," where an enterprise is considered to be experiencing sound corporate growth and improving labor productivity while increasing the number of employees. One involves enterprises that changed in a clockwise direction from Region [2] "Efficiency," Region [3] "Contraction," and Region [4] "Decline," while the other involves enterprises that have changed in a counterclockwise direction from Region [5] "Inefficiency" and Region [6] "Inefficient Growth."

From here on, we will look at the investment activity and management initiatives made by enterprises following these two clockwise and counterclockwise paths.

Fig. 1-3-14 2 paths to "Efficient Growth" in the 6 types of productivity change

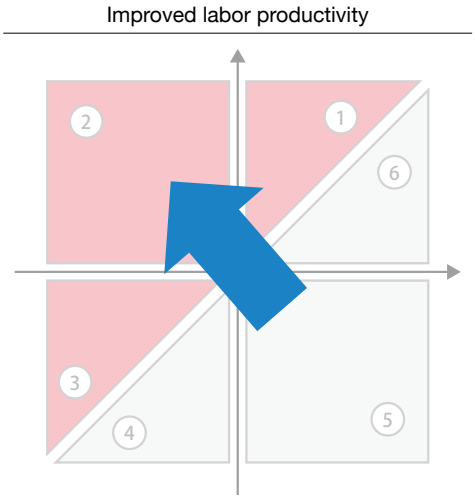


Numbers attached to the arrows indicate the percentage that transitioned from the first half of the period

(1) Investment activity and management initiatives in enterprises that improved labor productivity

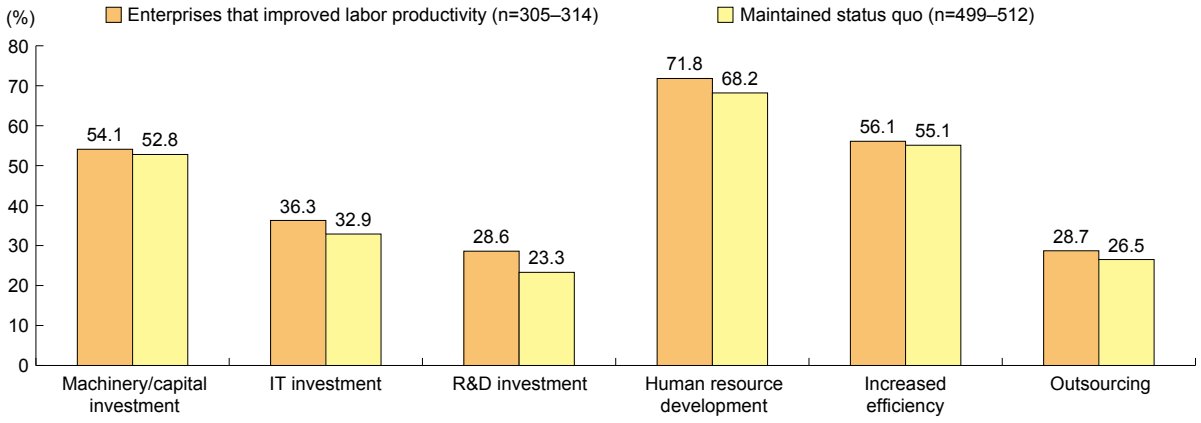
First, we will look at what kind of investment activity and management initiatives are being carried out by enterprises that have changed to a type that improves labor productivity from the first half of the period to the second half of the period (enterprises that have changed to a type above the 45-degree line). As shown in Fig. 1-3-15, we can see that among enterprises that changed to a type that crossed the 45-degree line from the first half of the period through the second half of the period, the percentage of enterprises engaged in investment activity such as machinery/capital investment, IT investment, and R&D investment, and management initiatives such as human resource development, increased efficiency, and outsourcing is generally high compared with enterprises that did not change type from the first half of the period (Fig. 1-3-16). It is clear that these investment activities and management initiatives are useful in improving labor productivity.

Fig. 1-3-15 Enterprises that improved labor productivity



Enterprises that were classified as Region [4] "Decline," Region [5] "Inefficiency," and Region [6] "Inefficient Growth" in the first half of the period, but changed to Region [1] "Efficient Growth," Region [2] "Efficiency," and Region [3] "Contraction" throughout the latter half of the period

Fig. 1-3-16 Improvement of labor productivity and investment activity, management initiatives



Source: Accenture Japan Ltd, *Fiscal 2017 Commission for Structural Analysis of SMEs in Japan and Projections of Structural Changes Report* (March 2018).

Notes: 1. Enterprises located in the "Decline," "Slacking," and "Slack Growth" regions between the two points of 2007 and 2012, and which headed towards the "Efficient Growth," "Efficiency," and "Contraction" regions between the two points of 2007 and 2016 are considered "Enterprises that improved labor productivity"; enterprises that stopped at the "Decline," "Slacking," and "Slack Growth" regions are considered "Maintained status quo"; includes enterprises that answered "every year without fail" and "almost every year" in regards to the various types of investment in the questionnaire survey.

2. Regarding M&A investment, excludes the number of enterprises that responded "never occurred once in the past ten years" from the number of valid responses.

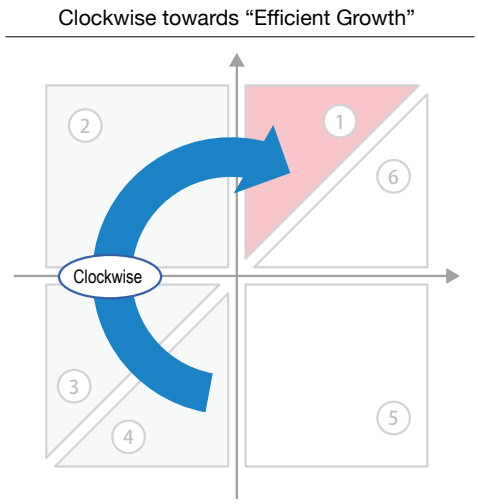
(2) Investment activity and management initiatives at enterprises that have changed clockwise toward Region [1] "Efficient Growth"

Next, we will look at investment activity and management initiatives in enterprises that have changed towards "Efficient Growth" in a clockwise direction. As shown in Fig. 1-3-17, enterprises that have changed towards "Efficient Growth" are enterprises that changed from the areas of Region [4] "Decline," Region [3] "Contraction," and Region [2] "Efficiency" in the first half of the period toward the direction of Region [1] "Efficient Growth."

Of the enterprises that were classified as Region [2] "Efficiency," Region [3] "Contraction," and Region [4] "Decline," in the first half of the period, Fig. 1-3-18 shows the percentage of enterprises that engaged in investment activity such as machinery/capital investment, IT investment, and R&D investment, as well as the respective efforts of human resource development, increased efficiency, or outsourcing, and had responded that "there is a trend of increasing/strengthening" those efforts over the past 10 years. We can see that for enterprises that are improving productivity in the clockwise direction, the percentage of those increasing/strengthening machinery/capital investment, IT investment, and R&D investment, as well as outsourcing were high compared with enterprises that did not change their type.

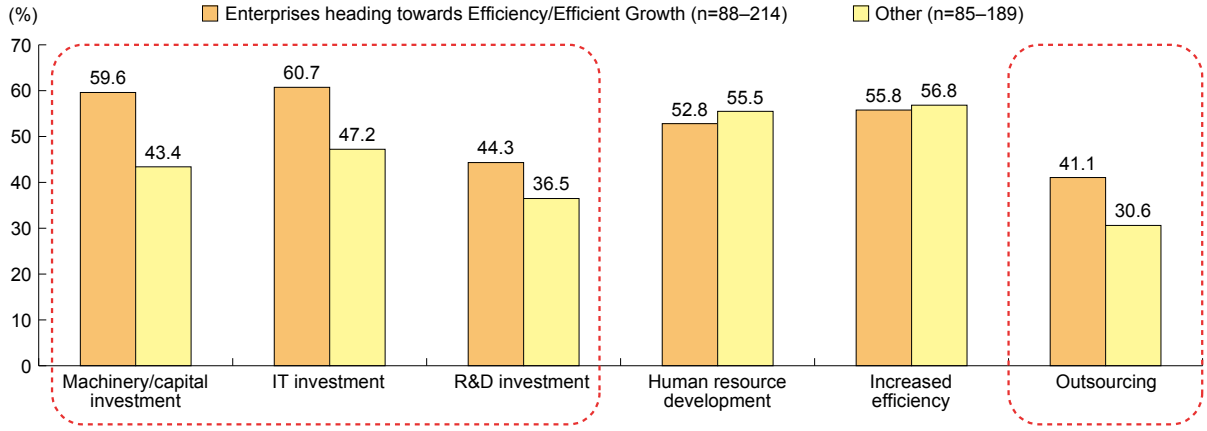
Enterprises that were classified as Region [3] "Contraction" and Region [4] "Decline," in the first half of the period were enterprises with a trend of a declining number of employees and also reduced creation of value added, but while continuing to outsource their business amid limited employees, they are increasing value added by engaging in machinery/capital investment, IT investment, and R&D investment, and improved labor productivity while increasing the number of employees in the second half of the period.

Fig. 1-3-17 Enterprises that changed clockwise toward Region [1] "Efficient Growth"



Enterprises that were classified as Region [4] "Decline," Region [3] "Contraction," and Region [2] "Efficiency," in the first half of the period, but changed toward Region [2] "Efficiency" and Region [1] "Efficient Growth" in the latter half of the period

Fig. 1-3-18 Investment activity and management initiatives at enterprises that have changed clockwise toward Region [1] "Efficient Growth"



Source: Accenture Japan Ltd, *Fiscal 2017 Commission for Structural Analysis of SMEs in Japan and Projections of Structural Changes Report* (March 2018).

Note: Enterprises located in the "Efficiency," "Contraction," and "Decline" regions between the two points of 2007 and 2012, and which headed towards the "Efficiency" and "Efficient Growth" regions between the two points of 2007 and 2016 are considered "Enterprises headed towards Efficiency/Efficient Growth"; enterprises that did not head towards the "Efficiency" and "Efficient Growth" regions are considered "Other"; covers enterprises that answered "there is a trend of increasing/strengthening" when comparing the past 10 years to the present, of the total of enterprises that answered "every year without fail," "almost every year," and "every few years" in regards to the various types of investment in the questionnaire survey.

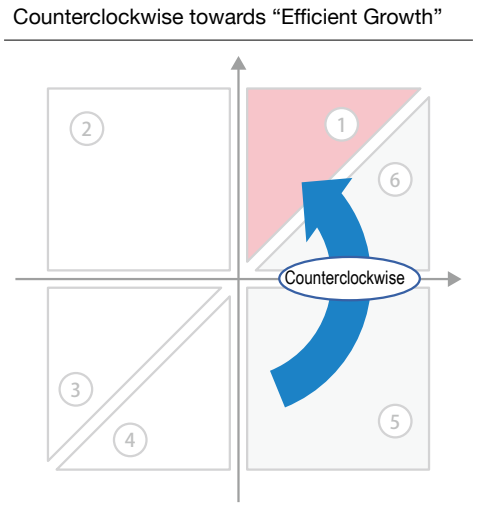
(3) Investment activity and management initiatives at enterprises that have changed counterclockwise toward Region [1] "Efficient Growth"

Next, we will look at investment activity and management initiatives in enterprises that have changed towards "Efficient Growth" in a counterclockwise direction. Enterprises that have changed counterclockwise towards "Efficient Growth" are, as shown in Fig. 1-3-19, enterprises that have changed in the first half of the period from Region [5] "Inefficiency" and Region [6] "Inefficient Growth" towards the direction of Region [1] "Efficient Growth."

Of the enterprises classified as Region [5] "Inefficiency" and Region [6] "Inefficient Growth" in the first half of the period, Fig. 1-3-20 shows the percentage of enterprises that engaged in investment activity such as capital investment, IT investment, and R&D investment, as well as the respective efforts of human resource development, increased efficiency, or outsourcing, and had responded that "there is a trend of increasing/strengthening" those efforts over the past 10 years. For enterprises that are improving productivity in a counterclockwise direction, although the percentage that responded "there is a trend of increasing/strengthening" in regards to efforts for machinery/capital investment, IT investment, and R&D investment is high compared to enterprises that did not change region, we can see that the difference is not as great as the enterprises that changed in a clockwise direction above (Fig. 1-3-18). On the other hand, we can see that among the enterprises that changed in a clockwise direction above (Fig. 1-3-18), the percentage engaged in initiatives for human resource development and increased efficiency, where there was not a significant difference, is high.

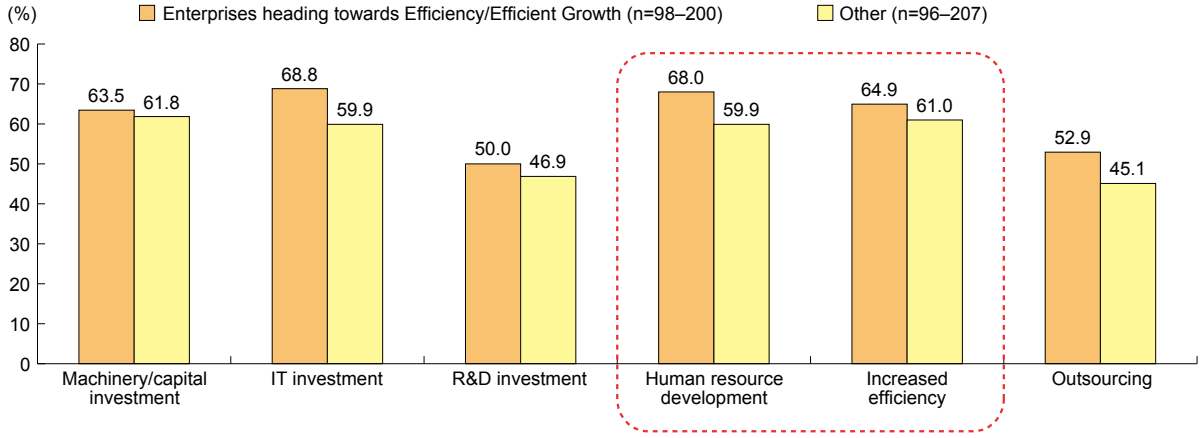
In the first half of the period, enterprises that were classified as Region [5] "Inefficiency" and Region [6] "Inefficient Growth" even during this time are enterprises that have not been able to create value added comparable to the increase in the number of employees, yet they have improved labor productivity by developing human resources, improving the capabilities of existing employees, and making efforts to increase efficiency.

Fig. 1-3-19 Enterprises that have changed counterclockwise toward Region [1] "Efficient Growth"



Enterprises that were classified as Region [5] "Inefficiency" and Region [6] "Inefficient Growth" in the first half of the period, but changed toward Region [1] "Efficient Growth" throughout the latter half of the period

Fig. 1-3-20 Investment activity and management initiatives at enterprises that changed counterclockwise toward Region [1] "Efficient Growth"



Source: Accenture Japan Ltd, *Fiscal 2017 Commission for Structural Analysis of SMEs in Japan and Projections of Structural Changes Report* (March 2018).

Note: Enterprises located in the "Inefficiency" and "Inefficient Growth" regions between the two points of 2007 and 2012, and which headed towards the "Efficiency" and "Efficient Growth" regions between the two points of 2007 and 2016 are considered "Enterprises heading towards Efficiency/Efficient Growth"; enterprises that did not head towards the "Efficiency" and "Efficient Growth" regions are considered "Other"; covers enterprises that answered "there is a trend of increasing/strengthening" when comparing the past 10 years to the present, of the total of enterprises that answered "every year without fail," "almost every year," and "every few years" in regards to the various types of investment in the questionnaire survey.

Thus, among enterprises that have changed towards "Efficient Growth" from the first half of the period of 2007 to 2012 up to the second half of the period in 2016, we find that some followed a clockwise path that achieved improved productivity through "aggressive investment" in terms of capital investment and IT investment, while others followed a counterclockwise path that improved productivity centering on "human resource development" and "increased efficiency."

In the next section, we will analyze the relationship between the sort of differences found in enterprises that conduct this investment activity and management initiatives and those that do not, and the decision-making methods such as corporate management policy and internal controls.

Case 1-3-1 Kamaishi Electrical Machinery Factory Co., Ltd.

A company that clearly defined its business domains and boosted productivity through capital investment and research and development

Kamaishi Electrical Machinery Factory Co., Ltd. (employees: 25; capital: ¥20 million), located in Kamaishi City, Iwate Prefecture, is a company that specializes in the repair and maintenance of motors and other rotating mechanisms. In recent years, the company has begun to apply thermal spray technology (a technology employed in reconditioning motors) in product development in the area of photocatalytic filters for air purification equipment.

Kamaishi Electrical Machinery Factory originally conducted business as a subcontractor for two major steel plants in its region, but factors including a trend towards the consolidation of domestic steel plants and a significant decline in orders as a result of the Lehman crisis saw the company temporarily facing a hard struggle. The turning point was the Great East Japan Earthquake. Motors that had been immersed in saltwater in the tsunami that immediately followed the earthquake were brought to the company from affected factories, and it found itself busy responding to the demand. Because simply washing a motor that has been immersed in saltwater will cause rust, Kamaishi Electrical reconditioned the motors by boiling them in a specially-made cauldron in order to remove the salt and re-insulating them. By this means, the company contributed to the rapid recovery of disaster-hit factories. Because demand for the repair of large motors was high following the earthquake, Kamaishi Electrical decided to concentrate its resources in this area, and actively engaged in capital investment over the course of several years in order to increase its business and boost productivity.

In 2015, the company introduced a specially-ordered coil-winding robot (costing approximately ¥10 million), enabling work that had previously taken two workers around a month to complete to be finished by one worker in a mere few days, dramatically increasing productivity. In 2016, it introduced test equipment for large motors (costing approximately ¥30 million), establishing a system that enabled it to conduct a complete set of procedures that even included in-house performance testing, in the process winning high regard from major companies among its client base. In addition to this, the company also expanded its business focus from its previous business of responding with repairs after problems had occurred to a preventive maintenance business that prevents malfunctions before they occur. Kamaishi Electrical has also expanded the range of its business outside Iwate Prefecture, and has today grown to service approximately 100 clients.

In recent years, Kamaishi Electrical has also begun to actively focus on research and development of its own products. By means of joint research conducted with university researchers and research institutions including the Iwate Prefectural Industrial Technology Center and the National Institute of Advanced Industrial Science and Technology, the company was able to develop its own photocatalytic filter. Based on the desire of Kazuhiko Sato, the company's President, to create products that would be of use to the livestock industry, Iwate Prefecture's regional industry, Kamaishi Electrical began to manufacture air purification equipment for cattle sheds using this filter. The installation of this equipment in the sheds enables purification of the air inside, with effects including a reduction of the rate of disease among calves, which has seen it welcomed by local livestock producers. The company is also working to commercialize a similar product for use in the future in child care and aged care facilities, where hygiene management is an important consideration. As another prospect for the future, Kamaishi Electrical is also making active efforts in the area of maintenance and other services for motors employed in the production and use of renewable energies, a field that is expected to expand in future.

The specially-ordered coil-winding robot that boosted the company's productivity

President Kazuhiko Sato with the boiling cauldron that put in extensive service following the Great East Japan Earthquake

In addition, looking to move away from its subcontracting business, for the past five years the company has been promoting the appointment of department manager-level employees to board member and executive officer positions. "By expanding our areas of business and increasing our client base, we have tapped into demand for regular maintenance, and the outlook is for stable business. As a result, we have also been able to conduct planned capital investment. There is a saying that "A company is its people," and I want to advance a systematic management plan for the next generation," Mr. Sato says emphatically.

Case 1-3-2 Kamei Seisakujo Co., Ltd.

A company that increased its productivity through research and development of its own products and efforts to increase efficiency through the introduction of IT

Kamei Seisakujo Co., Ltd. (employees: 72; capital: ¥20 million), located in Sakahogi Town, Gifu Prefecture, is a comprehensive manufacturer of mini-kitchens, spanning development, manufacture and sales, and maintenance and other after-sales services.

Founded in 1948, Kamei Seisakujo commenced its mini-kitchen business in 1975. Functioning at first as an OEM business, the company supplied to major household equipment and device manufacturers. However, the collapse of Japan's bubble economy and the entry of competitors to the market drove the company near to bankruptcy in 1997. Kamei Seisakujo therefore decided to move away from its subcontracting business, and it worked to increase its product development capacity while steering a course towards the fostering of its own brand.

The company has continued a form of training it calls "Design Meetings." Under this program, it invites external lecturers who it accesses through a Gifu Prefecture support scheme once a month to brainstorm new products with designs that match customer needs. Attendance at the company's Design Meetings is not restricted to personnel in charge of product development. Personnel from a wide variety of departments attend, including sales and manufacturing staff, and the company's President, Shinichi Kamei, attends without fail. He says, "What drives us is to hear customers say at product exhibitions that we have come up with a new set of interesting products." Seeking to further boost its product development capacity, in 2017 the company even formally established a product development department.

Kamei Seisakujo is also actively working to increase efficiency in its business procedures through IT investment. Two years ago, the company introduced a system (at a cost of approximately ¥30 million) that ensures order data is consistently transmitted right up to the manufacturing process. Input of order data formerly took an entire day by hand. With the introduction of the new system, the process from input of order data to design of blueprints takes 30 minutes, and there are no mistakes. But while it is actively pursuing IT investment in relation to some of its processes, the company is holding back from introducing IT to production management at its manufacturing site, preferring to have plans for daily production totals and the like calculated by site managers themselves and written up on a whiteboard. Lying behind this is Mr. Kamei's sense that "There are procedures that should be conducted by IT, and procedures that should not be conducted by IT. If you rely entirely on IT, you lose the ability to think for yourself, and this means that we would become unable to respond to sudden orders."

As a result of its efforts in the area of research and development towards product development, the fostering of human resources, and IT investment, the company's profits have recently increased. In 2016, it established new sales offices in Osaka and Nagoya, making it possible to implement manufacturing and sales strategies closer to its customers. At the same time, it is actively expanding overseas, for example opening a showroom in Phnom Penh in Cambodia in 2017. Mr. Kamei says that these investments are not the only factors driving the company's increase in productivity. For the past three years, the company as a whole has strengthened its focus on 5S activities. Even during busy periods, 15 minutes each morning are set aside for 5S activities, and Mr. Kamei himself evaluates these activities once a week. Continuing these efforts for the past three years has enabled the company to achieve higher productivity in less working time, and to win the confidence of its customers, increasing the rate of business coming in. Mr. Kamei says "What is important at the start is for the President, the head of the company, to have a vision for changing the company and a strong will to do so. Investment is also important, but with 5S as the foundation, I believe that you are able to maximize the results of that investment."

Compact mini-kitchens developed, manufactured and sold by Kamei Seisakujo

Shinichi Kamei, President

Case 1-3-3 Nishiki Foods Co., Ltd.

A company that increased its productivity through uncompromising product development and efforts to foster employees and increase efficiency

Nishiki Foods Co., Ltd. (employees: 240; capital: ¥30 million), located in Iwanuma City, Miyagi Prefecture, is a manufacturer of vacuum-packed foods. The company uses no chemical seasonings, flavorings or coloring agents, relying exclusively on the ingredients of its foodstuffs (water, salt and the raw materials) and its own manufacturing methods. The superior quality of its products has seen it recently expanding the scope of its business, for example assuming exclusive responsibility for the manufacture of vacuum-packed foods sold as a private brand by a major retailer.

The company's business was originally focused on taking orders for business use, but with the advent of price competition in the ready-made food industry, demands from its customers for price reductions became steadily stronger, until in 2005 it made a major transition to the production of retail products with high unit prices, enabling it to ensure added value. In 2011, the company's factory was engulfed by the tsunami that followed the Great East Japan Earthquake, and sustained severe damage. Nevertheless, the company was able to get it up and running again in the astonishing period of only 45 days, and even commenced construction of a new factory for which the groundbreaking ceremony had been held eight days prior to the earthquake. In March 2012, one year after the earthquake, the factory commenced operation. With this, the company reconsidered the value that it presented, and began to focus efforts on fostering employees and increasing efficiency.

First, the company sought to entrench its management philosophy, seeking to encourage a shift from the previous concept of "selling things" to a concept of "selling value" among its employees. It commenced distributing a pamphlet containing a discussion of its management philosophy to employees, and the company's President set aside time to explain the philosophy. The company is focusing energy on cultivating a sense of unity among its employees. For four years it has held presentation meetings regarding its management policy, at which top management shares details of management policy with workers and the managers of individual departments discuss their departmental policy.

Nishiki Foods is also working to enhance its product planning capacity, for example by increasing its number of product development personnel to slightly less than 20% of its number of full-time staff, and dispatching employees to India, the home of curry, in order to investigate local flavors.

The company is also actively pushing ahead with the fostering of human resources among both management and employees. Five years ago, it launched a training program for young employees that it calls the "Future School." Focusing on middle management staff (supervisor and assistant manager level) aged around 30, the program lasts for a year and offers training in the mental attitude and the approach to the job required of managers, inviting guest lecturers once a month. The company is also taking guidance from external consultants specializing in increasing productivity and advancing 5S activities, in addition to vigorously pursuing the development of human resources at different levels, for example by having section chiefs and department managers receive external training every few months. These initiatives have proved a success and have produced significant outcomes, for example a year-on-year improvement of 10% in productivity.

The company's flagship product, the Marche curry series

The company is also making active efforts to increase efficiency through the use of IT. Efficiency increases are being pursued on a number of fronts, including the computerization of production planning, the realization of a paperless workplace, the computer-based management of several hundred recipes, and initiatives in the area of traceability.

In September 2017, the company became a pioneer among Japan's vacuum-packed food manufacturers by receiving halal certification, and is currently engaged in the development of new products that it hopes to introduce to the Olympic Village at the 2020 Tokyo Olympics. Hiroshi Kikuchi, company chairman, says "Change in the environment surrounding us is intensifying, and small changes today are linked to greater changes in the future. There have been significant changes in trends in the past few years, and it has become important to constantly have a view towards the future. Approaches to work are also changing amidst a shortage of human resources. We are looking to further boost productivity by increasing our employees' abilities through initiatives in the development of human resources, at the same time as also working to increase efficiency."

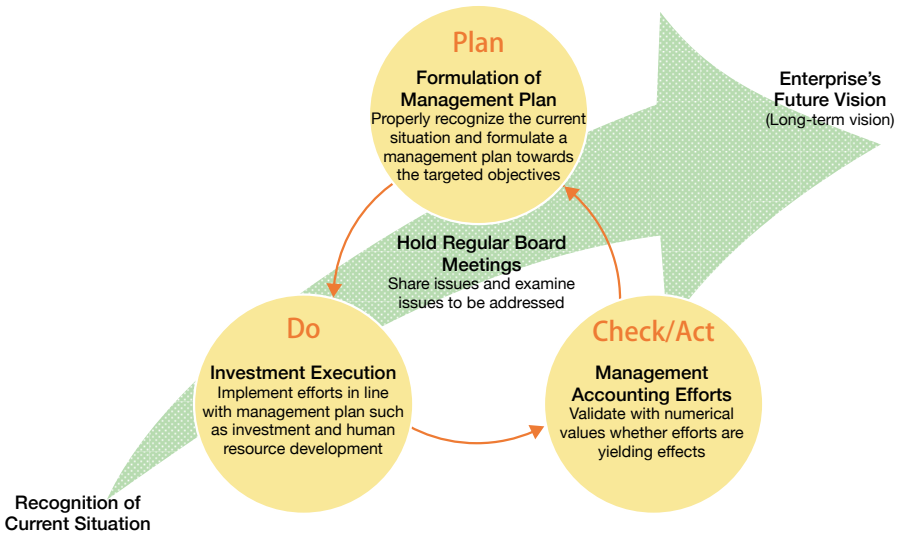
Hiroshi Kikuchi, Chairman

3. Relationship between management system and enterprise behavior

Up to this point, we analyzed what kinds of investment activity and management initiatives have been made by enterprises that have improved labor productivity. Even after initiating investment activity and management initiatives such as human resource development, such efforts will not bring immediate results as some time will be required before the results emerge, and it is necessary to establish and execute a plan with a long-term vision. Also, it is important to understand current issues in numerical values, share issues through discussion with senior executives at the management meeting of the Board of Directors, etc., then go through the PDCA cycle of formulating a management plan to solve the issues, implementing the plan, measuring and verifying quantitatively whether the measures were effective, and take action for the next initiative (Fig. 1-3-21).

Here we will look at the relationship between the type of management structure and the investment activity and management initiatives we have seen so far.

Fig. 1-3-21 Future vision and PDCA cycle of management

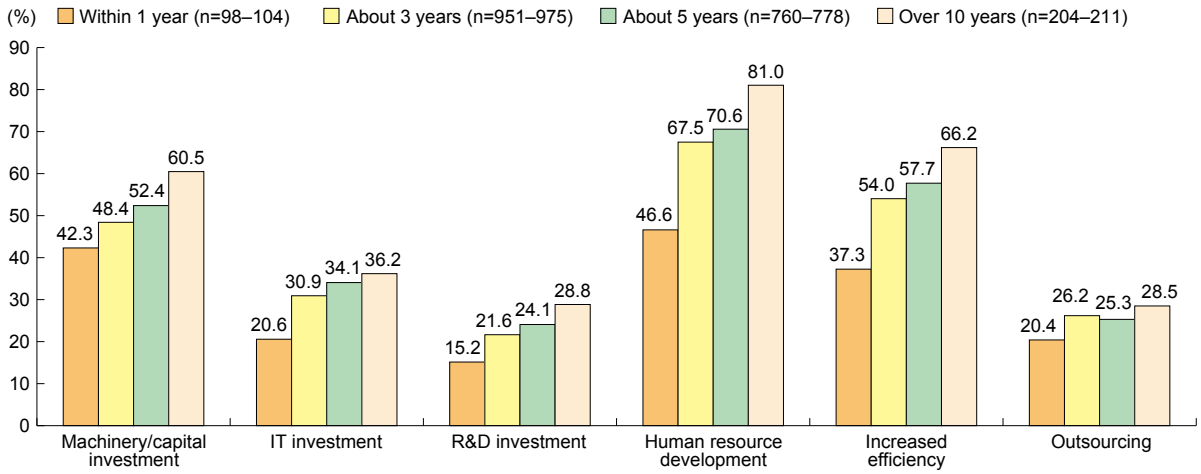


(1) Enterprise behavior and number of years to focus on management

Fig. 1-3-22 shows enterprises that provided the number of years they focus on management in response to the question "How many years ahead do you focus on management?" and that answered "every year without fail" and "almost every year" in regards to investment activity and management initiatives.

We can see that the percentage of enterprises undertaking investment activity and management initiatives tends to be higher for those with many years of focus on management. In particular, among enterprises that responded "within a year" in regards to human resource development, only about 50% replied that they are doing this "every year without fail" and "almost every year," but among enterprises that responded "more than 10 years" as to the number of years to focus on management, approximately 80% answered that they are undertaking initiatives, and the difference is significant. A similar tendency can be seen with regards to increased efficiency. We can see that firms which are engaging in management with a focus ahead are more proactive in initiatives for human resource development and increased efficiency.

Fig. 1-3-22 Number of years to focus on management and investment activity, management initiatives

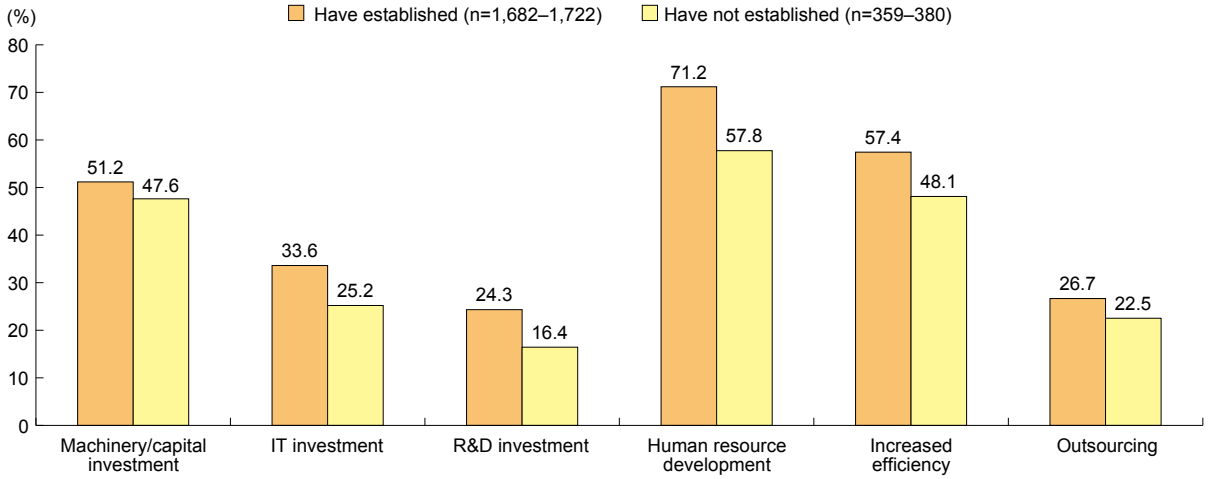


Source: Accenture Japan Ltd, *Survey on Management Structure and Management of SMEs* (November 2017).
Note: "About 10 years" or "about 20 years" is "10 years or more"; includes enterprises that responded "every year without fail" and "almost every year" for each answer about management in regards to "How many years ahead do you focus on management?" in regards to the various types of investment in the questionnaire survey.

(2) Decision-making structure and enterprise behavior

Next, we will look at the relationship between decision-making structure and investment activity and management initiatives. Fig. 1-3-23 shows an analysis of the relationship between the establishment of a Board of Directors and investment activity and management initiatives. We can see that enterprises which have established a Board of Directors have a higher percentage of engagement in investment activity and management initiatives. This suggests that having a place for making decisions on management policies like the Board of Directors prompts ongoing and systematic investment activities and management initiatives.

Fig. 1-3-23 Establishment of a board of directors and investment activity, management initiatives



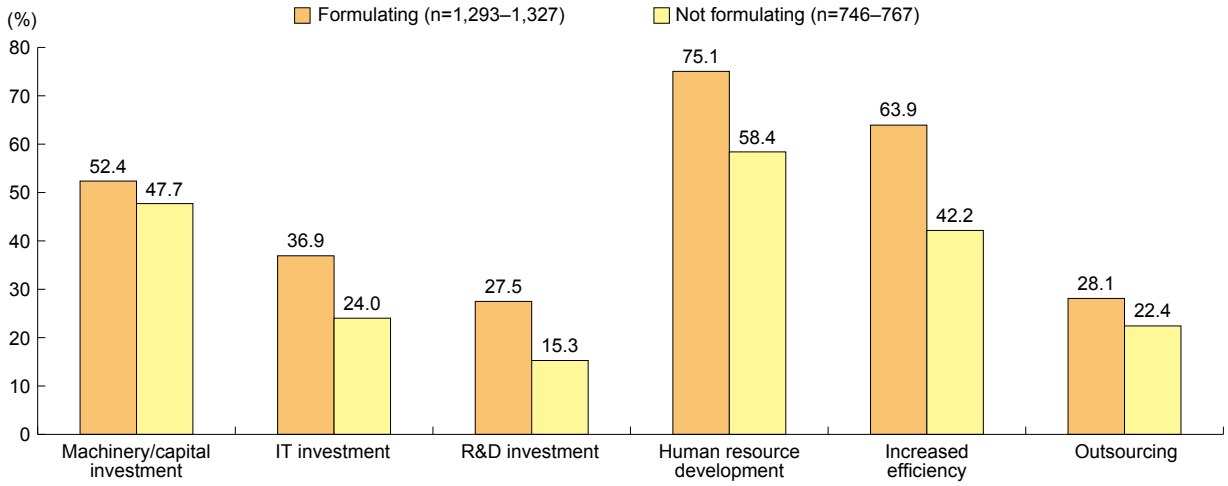
Source: Accenture Japan Ltd, *Survey on Management Structure and Management of SMEs* (November 2017).
Note: Enterprises that answered "Established for over 10 years" or "Established within the past 10 years" are "Have established"; includes enterprises that responded "every year without fail" and "almost every year" for each answer as to whether the enterprise is establishing a Board of Directors, in regards to the various types of investment in the questionnaire survey.

(3) Formulation of management plan and enterprise behavior

Continuing on, we will look at the relationship between the formulation status of a management plan and investment activity and management initiatives. Here, management plan refers to a plan that shows the kind of action to take based on the enterprise's management philosophy and vision. Ordinarily, the management plan that an enterprise creates includes a single-year management plan for each fiscal year and a medium-term management plan that is generally a multi-year plan for more than two years.

Fig. 1-3-24 shows an analysis of whether or not a management plan (medium-term plan) is formulated as well as investment activity and management initiatives. We can see that formulating a medium-term plan corresponds to a higher percentage of undertaking investment activity and management initiatives. Especially with efforts for human resource development and increased efficiency, there is a significant difference between enterprises that have formulated management plans and those that have not. This suggests that enterprises which have formulated management plans are systematically engaging in investment activities and management initiatives.

Fig. 1-3-24 Formulation of management plan (medium-term plan) and investment activity, management initiatives

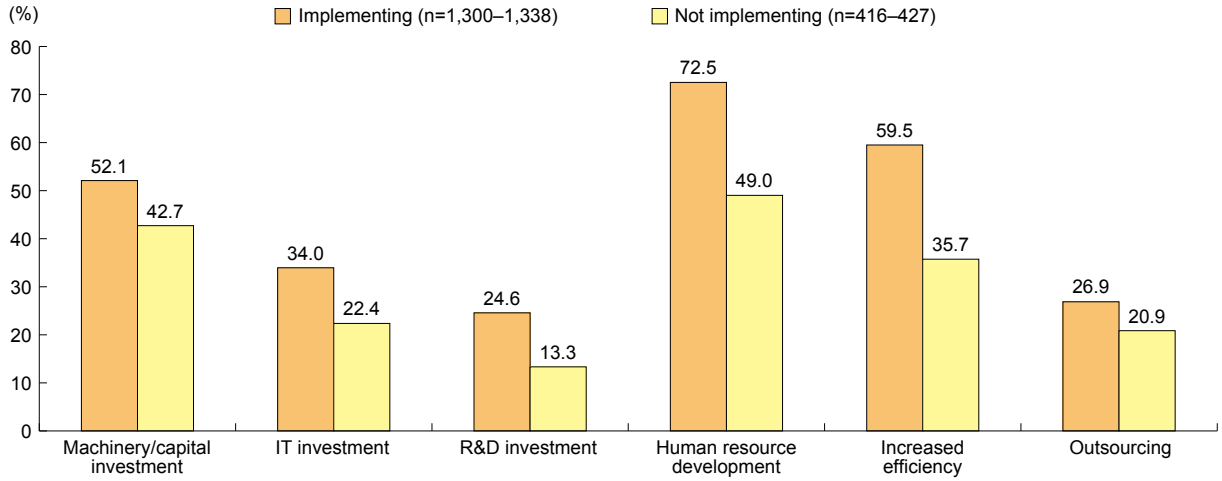


Source: Accenture Japan Ltd, *Survey on Management Structure and Management of SMEs* (November 2017).
Note: Enterprises that answered "Established for over 10 years" or "Established within the past 10 years" are "Have established"; includes enterprises that responded "every year without fail" and "almost every year" for each answer as to whether the enterprise has formulated a medium-term management plan (multi-fiscal year plan), in regards to the various types of investment in the questionnaire survey.

(4) Management accounting efforts and enterprise behavior

Fig. 1-3-25 shows whether or not there are management accounting efforts as well as investment activity and management initiatives. The term "management accounting" here refers to efforts to prepare management materials, such as profit management or cost management by customer, by product, or by department, for management decision-making. We can see that a higher percentage of enterprises which are engaged in management accounting are also engaging in investment activity and various management initiatives. We can infer that by engaging in management accounting, enterprises are able to conduct decision-making based on numbers and create management plans, which then makes it easier to engage in investment activity and management initiatives.

Fig. 1-3-25 Implementation of management accounting and investment activity, management initiatives



Source: Accenture Japan Ltd, *Survey on Management Structure and Management of SMEs* (November 2017).
Note: Enterprises that answered "Implementing for over 10 years" or "Start implementing within the past 10 years" are "Implementing"; includes enterprises that responded "every year without fail" and "almost every year" for each answer as to whether the enterprise is, apart from preparing financial statements, working on profit management and cost management (management accounting) for the purpose of management decision-making, in regards to the various types of investment in the questionnaire survey.

Section 3 Summary

In this chapter, we classified the changes in productivity into six types and analyzed how the type of productivity of SMEs changed over the past 10 years. Consequently, about 21% of SMEs were classified as Region [1] "Efficient Growth," where the growth rate in value added was greater than the growth rate in the number of employees. On the other hand, we confirmed that about 25% of enterprises were classified as Region [4] "Decline," where the rate of decrease in value added was greater than the rate of decrease in the number of employees, and labor productivity decreased.

Next, based on a questionnaire survey, we analyzed how the types changed from the first half of the period through the second half of the period. This showed that when enterprises changed towards Region [1] "Efficient Growth," their respective investment activity and management initiatives differed depending on which of the six types the enterprises were classified as. We confirmed that enterprises which had been classified as Region [3] "Contraction" and Region [4] "Decline," where the number of employees decreased and value added decreased, were engaging in IT investment, outsourcing, machinery/capital investment and research and development. On the other hand, enterprises which had been classified as Region [5] "Inefficiency," where although the number of employees increased, value added was decreasing, or Region [6] "Inefficient Growth," where labor productivity was declining, engaged in human resource development and increased efficiency.

Furthermore, we could see that enterprise behavior, such as machinery/capital investment, IT investment, human resource development, and increased efficiency, is more likely to be carried out when the number of years to focus on management is longer, and that holding meetings of the Board of Directors, formulation of management plans, and engaging in management accounting comprise a large proportion of these initiatives in enterprise behavior.

Chapter 4

The state of SME management

As we have seen up to this point, various forms of investment activity (machinery and equipment investment, IT investment, and R&D investment) and management initiatives such as the development of human resources, the realization of increased efficiency, and outsourcing, are related to a company's internal systems (the holding of board meetings) and the status of establishment of management systems (the formulation of management plans and the introduction of management accounting initiatives).

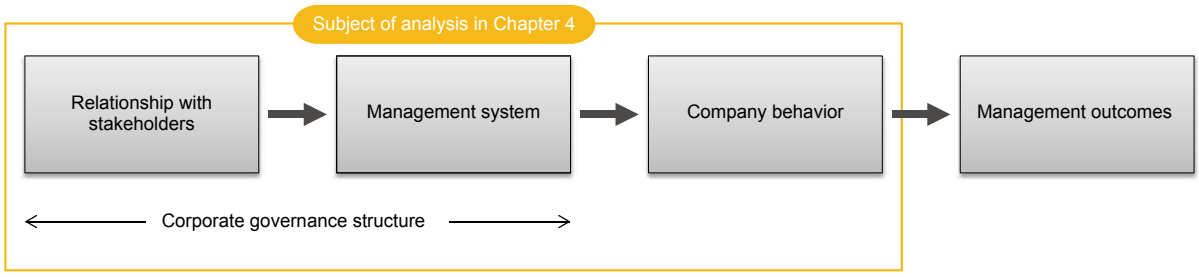
In this chapter, we use statistical methods to analyze the relationship between companies' administrative structure and corporate behavior, in addition to taking an overview of the status of establishment of administrative structures in SMEs.

Section 1 The relationship between corporate governance structures and corporate behavior

Among listed companies, a certain degree of progress in the area of governance structures can be observed as a result of the entrenchment of the Corporate Governance Code[1]. In the case of SMEs, however, in a large number of companies, the shareholders (the owners of the company) and the management are one and the same, a structure that makes it difficult for discipline applied by stakeholders outside the company to be effective. As a result, many companies have not adequately established mechanisms for management decision-making, such as a Board of Directors, or are yet to introduce business administration functions such as the formulation of management plans or the implementation of management accounting initiatives.

This section will employ statistical methods in order to analyze the relationship between the corporate governance structures of SMEs (their relationship with stakeholders and management systems) and company behavior (investment behavior, development of human resources, efforts to increase efficiency), as shown in Fig. 1-4-1[2].

Fig. 1-4-1 Relationship between corporate governance structure, company behavior, and management outcomes



1) The Corporate Governance Code provides guidelines for corporate governance by companies listed on the Tokyo Stock Exchange. Established by the Tokyo Stock Exchange in response to the report "Japan's Corporate Governance Code (Final Proposal)" published in March 2015 by a Council of Experts convened by the Financial Services Agency, the Corporate Governance Code went into effect from June 2015.

2) Aoki (2017) examines the relationship between corporate governance structures, corporate behavior, and outcomes following the SCP paradigm, which has traditionally been employed in the field of economics. The SCP paradigm sees structure (S) as being reflected in conduct (C), which is in turn reflected in the performance (P) of the organization. Conventionally, "structure" in the SCP paradigm refers to market structures such as competitive environments or barriers to entry. Aoki (2017), however, substitutes corporate governance structures for market structures, and considers them as structures influencing corporate behavior. The analysis conducted in Aoki (2017) further classifies governance into external governance (governance applied from outside by shareholders, creditors, etc.) and internal governance (governance applied from within the company by a Board of Directors, etc.). The analysis conducted here employs this and other preceding research as a reference.

1. Analysis of relationship between corporate governance structure and company behavior using structural equation modeling

To begin, we will analyze the relationship between the corporate governance structure (relationship with stakeholders, management system) and various company behaviors based on questionnaire results, using structural equation modeling[3] (Fig. 1-4-2). The lines in the figure represent the relationship between each item. A positive number shows a positive correlation, and a negative number shows a negative correlation.

This structural equation modeling analysis shows that management that adopts a long-term perspective, the holding of board meetings, the formulation of management plans (medium-term plans), and efforts to bolster management functions (management accounting) have a positive effect on company behavior including investment (machinery and equipment investment, IT investment, R&D investment), the development of human resources, and initiatives to increase efficiency. This trend accords with the trend indicated by the cross-tabulation of questionnaire results in Chapter 3, Section 2.

The results show that management that adopts a long-term perspective and the formulation of management plans (medium-term plans) have a particularly strong influence on the development of human resources, and the formulation of management plans (medium-term plans) influences initiatives to increase efficiency.

Turning next to the relationship between the company's relationship with stakeholders and its management systems, the involvement of external shareholders has a positive effect on the holding of board meetings and the formulation of management plans (medium-term plans), and the appointment of directors from outside the company has a positive effect both on the holding of board meetings and the enhancement of management functions (the introduction of management accounting initiatives).

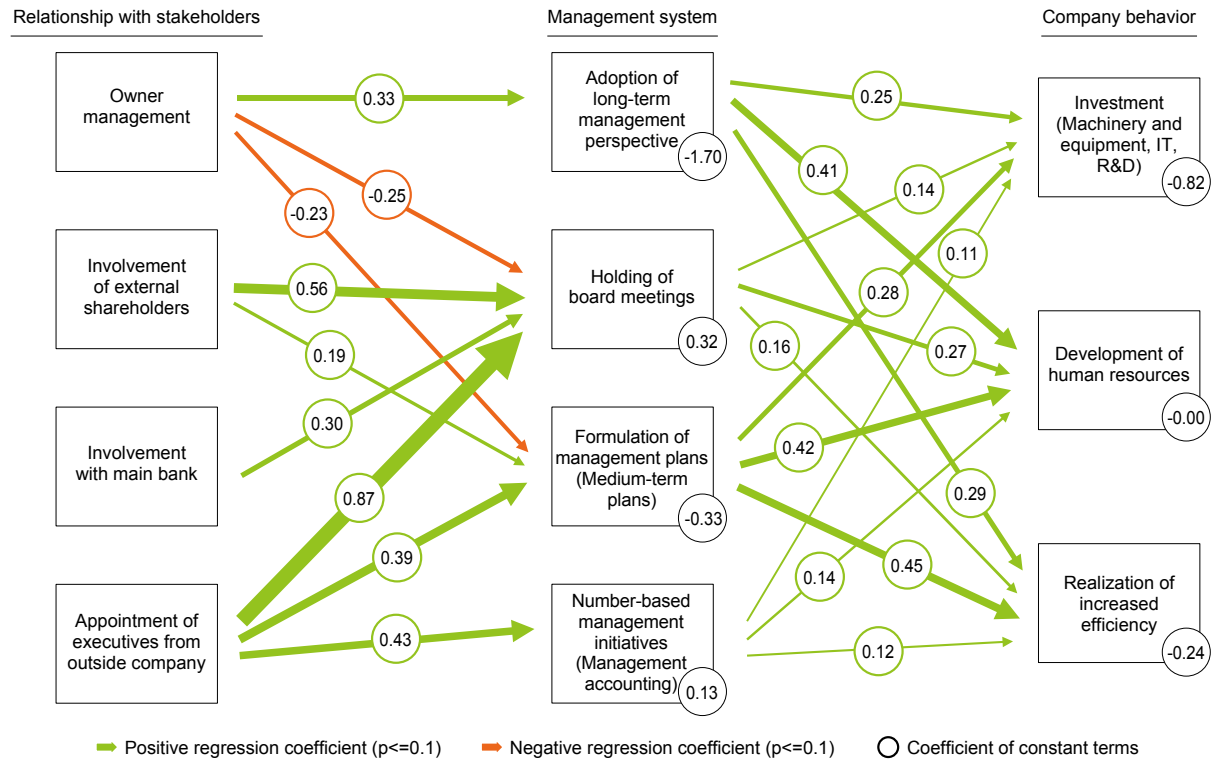
In the case of owner management[4], while this form of operation has a positive effect on the implementation of management initiatives from a long-term perspective because the term in office of the management is a long one, the results also show that it exerts a negative influence in tending to inhibit the mounting of initiatives such as holding board meetings and formulating management plans.

These results suggest that for SMEs also, it would be possible to invigorate company behaviors such as investment activities, the development of human resources, and the realization of increased efficiency by proceeding with the introduction of a management system that incorporates check functions provided by external stakeholders (involvement of external shareholders and appointment of directors from outside the company), introducing a systematic decision-making mechanism (holding board meetings), and consciously establishing internal systems (formulation of management plans and introduction of management accounting).

3) Structural equation modeling is a statistical method allowing the simultaneous analysis of multiple observed variables. It is also known as covariance structure analysis. See Appended note 1-4-1 for more details.

4) Here, owner management refers to companies in which the founder, a member or members of the founding group, a member of the founding family, or the major shareholder has a position at the front line of the company's management, as President, Chairperson, or advisor, or holds not only the major proportion of voting rights but also exercises effective control over the company.

Fig. 1-4-2 Relationship between corporate governance structure and company behavior as determined by structural equation modeling



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes: 1. Figures show the magnitude of the coefficients. Figures are rounded off to two decimal places.
2. Estimate results shown; error terms omitted.
3. For details regarding variables and estimate results, see Appended note 1-4-1.

Section 2 Status of establishment of corporate governance structures

The previous section looked at the relationship between corporate governance structure (relationship with stakeholders and management systems) and company behavior. In this section, we will consider the actual status of establishment of governance structures among Japan's SMEs, once again using the survey results that we employed in Chapter 3.

1. Relationship with stakeholders

In the case of large companies and listed companies, it is generally the case that ownership and management are separated; shareholders, the owners of the company, appoint executives to oversee the execution of company procedures at general shareholders' meetings. However, in the case of SMEs (the majority of which are unlisted), as we will see below, there is a high proportion of owner-managed companies, and in these cases shareholders and management are one and the same. For the analysis conducted in this section, we divide companies by their form of ownership into owner-managed and non-owner-managed categories, and in addition by the presence or absence of external shareholders[5].

Among owner-managed companies, "companies without external shareholders" indicates companies in which shares are held by the owner-manager, or members of the owner-manager's family, relatives of the owner-manager, etc. This is a form of management in which owners and managers are the same. With regard to corporate governance in these companies, the fact that there are no shareholders other than the owner-manager and the owner-manager's relatives makes it difficult for discipline to be applied by shareholders. Owner-managed companies with external shareholders are companies in which, despite the fact that ownership and management are largely identical, some shares are owned by executives who are not members of the owner-manager's family, employees, business partners, etc. This is a form of management in which owners are more aware of the oversight of shareholders than in the case of owner-managed companies without external shareholders.

In the case of SMEs, the role of stakeholders other than shareholders who apply discipline from outside the company can also be taken by the financial institutions with which the companies conduct transactions (which have the standpoint of creditors), or by executives who offer consultations regarding management or sometimes regulate management from outside the company.

In this section, while giving consideration to the form of ownership of companies, we will examine the status of shareholders (the owners of companies) and the holding of shareholders' meetings (their decision-making body), in addition to the status of SME's involvement with their main banks and the involvement of executives from outside the company.

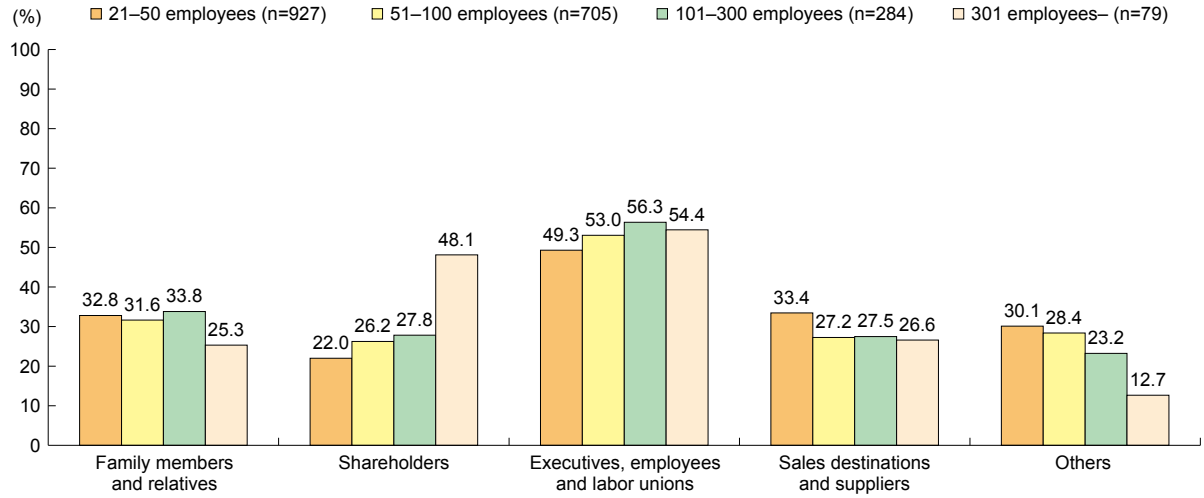
(1) Actors and organizations possessing the greatest influence over management

Fig. 1-4-3 shows the actors and organizations possessing the greatest influence over the management of SMEs. These are classified into "Shareholders," the owners of the company, "Executives, employees and labor unions," actors who are involved with the company internally, "Sales destinations and suppliers," the company's business partners, and, additionally, "Family members and relatives," who are the actors closest to the managers of SMEs. Results were also aggregated based on which actors or organizations were selected first and which were selected second.

"Executives, employees and labor unions" received the highest proportion of responses as the actor or organization possessing the greatest influence over the company, with slightly less than 50% of responding companies selecting this response. This was followed by "Family members and relatives," "Shareholders," and "Sales destinations and suppliers," which all received almost exactly the same proportion of responses. The proportion of companies with 301 employees or more responding "Shareholders" was also high at almost 50%.

5) "External shareholders" refers to third-party shareholders other than the owner (executives who are not members of the owner's family, employees, business partners, financial institutions, etc.).

Fig. 1-4-3 Actors or organizations possessing the greatest influence over management (by number of employees)



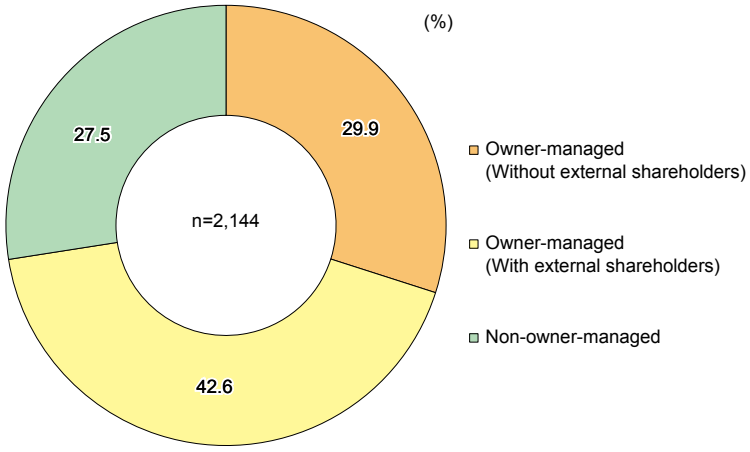
Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).

Notes:
1. Aggregates responses by SMEs to the question "Which actor or organization do you think has the greatest influence on your company's overall management?" by number of employees in 2016. The response "The current President's family members or relatives" was classified in "Family and relatives"; the responses "Parent company in the capital structure" and "Shareholders other than the parent company" were classified in "Shareholders"; the responses "Sales destinations / Customers (consumers)" and "Suppliers" were classified in "Sales destinations and suppliers"; and the responses "Financial institution with which transactions are conducted," "Outside directors," "Auditors (including outside auditors)," "Accountant/Tax accountant," "Regional community/Public opinion," "National government/Local government," and "Other" were classified in "Other."
2. Total does not always equal 100% as multiple responses were possible.

(2) Status of form of ownership

Fig. 1-4-4 shows the form of ownership of Japanese SMEs. The proportion of owner-managed companies is high at approximately 72%, with non-owner-managed companies representing only approximately 28%. In addition, owner-managed companies without external shareholders, i.e. companies in which ownership and management correspond, make up approximately 30% of the total.

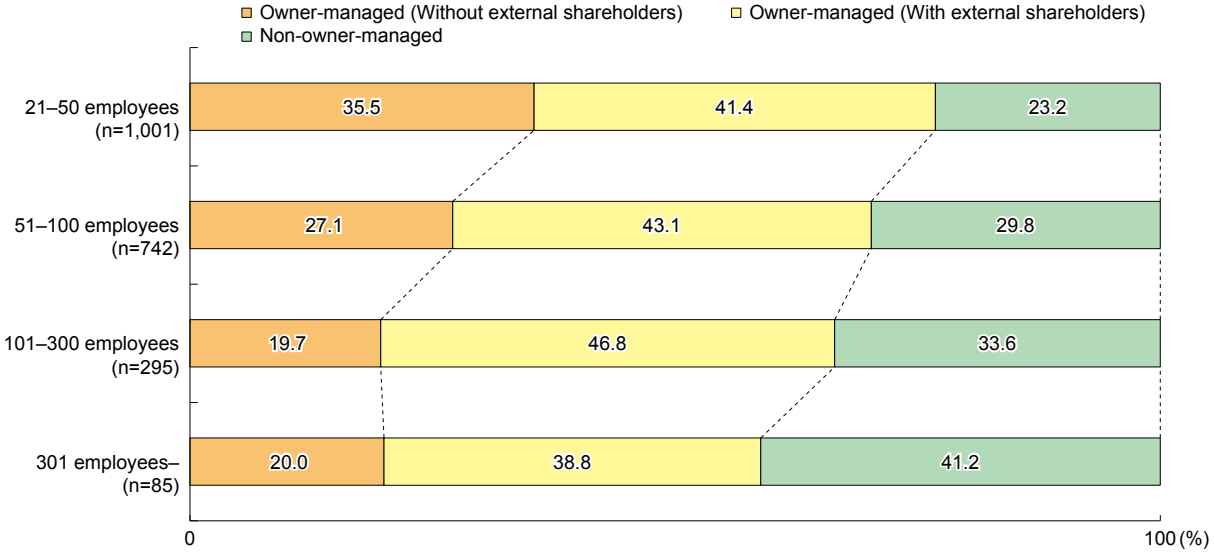
Fig. 1-4-4 Form of ownership



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).

Next, Fig. 1-4-5 shows form of ownership by number of employees. Owner-managed companies represent approximately 77% of companies with 21-50 employees, and the proportion of owner-managed companies without third-party external shareholders is also high. However, as the number of employees increases, we see that the proportion of owner-managed companies without third-party shareholders declines, while the proportion of non-owner-managed companies increases.

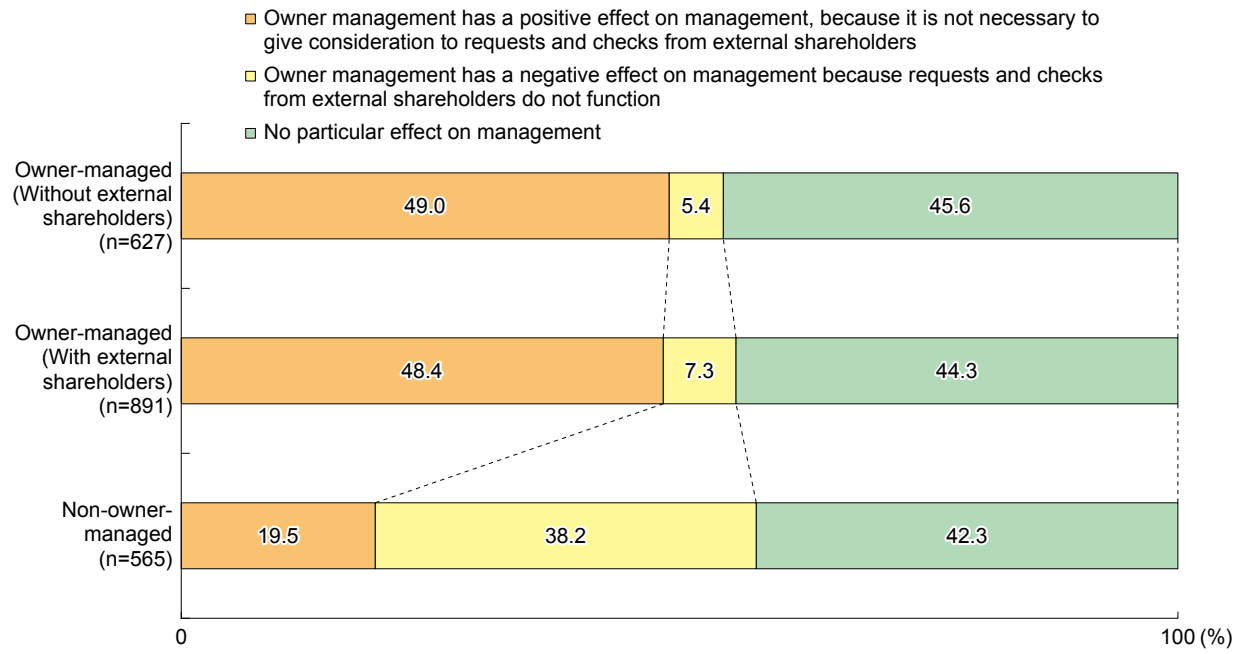
Fig. 1-4-5 Form of ownership (by number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates responses to the question “Is your company owner-managed?” by number of employees.

Fig. 1-4-6 shows the effect of owner management by form of ownership. For both owner-managed and non-owner-managed companies, approximately half of all companies responded that differences in the form of ownership did not have a particular effect on management. While a high proportion of owner-managed companies took a positive view of this form of ownership, responding that it has a positive effect on management because it is not necessary to take requests and checks from external shareholders into consideration, among non-owner-managed companies, a high proportion of companies took a negative view, responding that this form of ownership has a negative effect on management because requests and checks from external shareholders do not function. However, approximately 20% of non-owner-managed companies were of the opinion that owner management has a positive effect on management.

Fig. 1-4-6 Effect of owner management



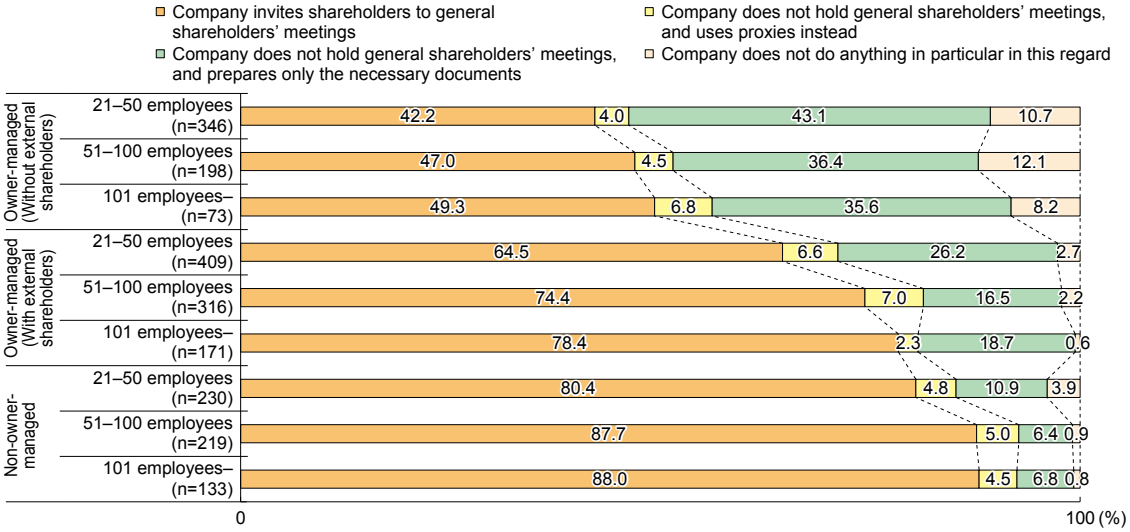
Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Note: Aggregates responses regarding effect of owner management for each response concerning whether the company is owner-managed.

(3) Status of holding of shareholders' meetings and status of external shareholders

Next, we will look at the status of holding of shareholders' meetings and the status of external shareholders.

Fig. 1-4-7 shows the status of holding of shareholders' meetings among SMEs by number of employees and form of ownership. Less than 50% of owner-managed companies without external shareholders of any scale responded that they invited shareholders to general shareholders' meetings. The proportion of these companies responding that they did not hold general shareholders' meetings and only prepared the necessary documents was high at around 40%. The proportion of non-owner-managed companies responding that they invited shareholders to general shareholders' meetings was high at more than 80%. These results indicate that because managers and shareholders are one and the same in the case of many owner-managed companies without external shareholders, many of these companies prepare documents only for necessary procedures.

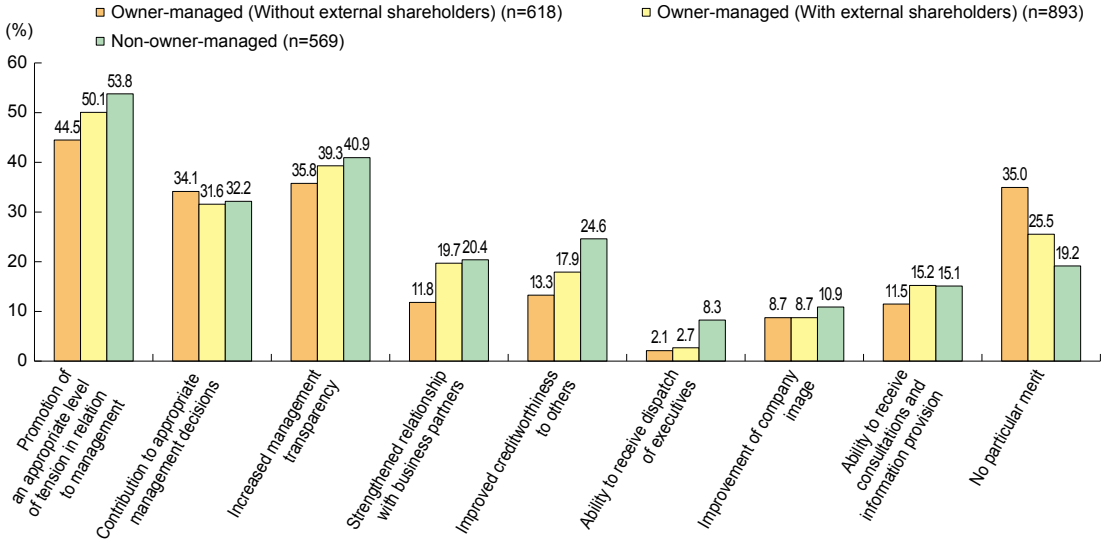
Fig. 1-4-7 Status of holding of general shareholders' meetings (by form of ownership and number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates responses regarding status of holding of general shareholders' meetings in the previous fiscal year for each response concerning number of employees and whether the company is owner-managed.

Fig. 1-4-8 shows responses for the existence of external shareholders and the perceived merits of introducing external shareholders by form of ownership. The merit that companies that already have external shareholders perceived was "Promotion of an appropriate level of tension in relation to management," followed by "Increased management transparency" and "Contribution to appropriate management decisions." Among owner-managed companies without external shareholders, a high proportion of responding companies perceived "Contribution to appropriate management decisions" as a merit.

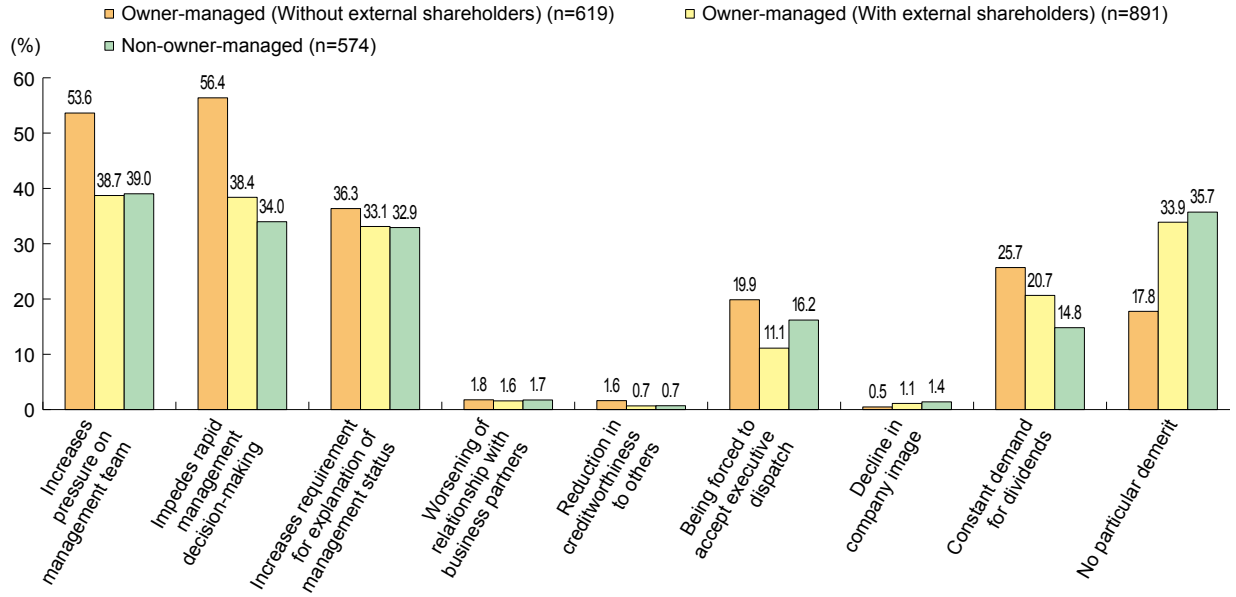
Fig. 1-4-8 Existence of external shareholders and perceived merits of introduction of external shareholders (by form of ownership)



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes:
1. Aggregates companies responding regarding the existence of external shareholders and their thinking concerning the merits of introducing external shareholders for each response regarding whether the company is owner-managed.
2. Aggregates the actually experienced merits of external shareholders in the case of companies that already have external shareholders, and perceived merits of the introduction of external shareholders in the case of owner-managed companies without external shareholders.
3. Total does not always equal 100% as multiple responses were possible.

Fig. 1-4-9 shows the status of external shareholders and the perceived demerits of the introduction of external shareholders. Owner-managed companies without external shareholders perceived "Impedes rapid management decision-making" and "Increases pressure on management team" as the greatest demerits, followed by "Increases requirement for explanation of management status." Among owner-managed companies that already have external shareholders and non-owner-managed companies, the proportion indicating demerits was lower, and a considerable proportion of companies also responded "No particular demerit."

Fig. 1-4-9 Status of external shareholders and perceived demerits of introduction of external shareholders (by type of ownership)

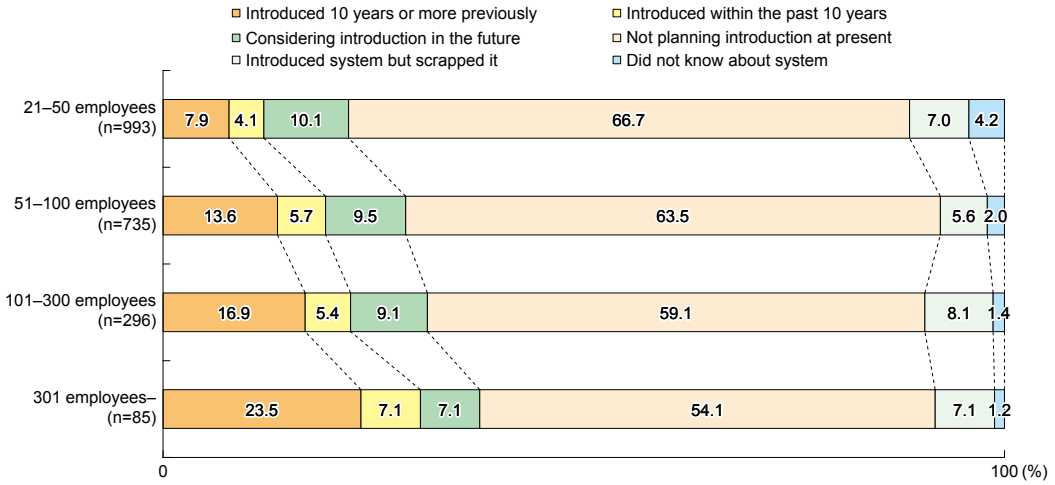


Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes:
1. Aggregates companies responding regarding the existence of external shareholders and their thinking concerning the demerits of introducing external shareholders for each response regarding whether the company is owner-managed.
2. Aggregates the actually experienced demerits of external shareholders in the case of companies that already have external shareholders, and perceived demerits of the introduction of external shareholders in the case of owner-managed companies without external shareholders.
3. Total does not always equal 100% as multiple responses were possible.

(4) Status of introduction of employee shareholding association systems

To continue, Fig. 1-4-10 shows the status of introduction of employee shareholding association systems. These systems increase employee awareness of participating in the management of the company by enabling them to hold shares in their own company, boost motivation to achieve improved results by paying dividends based on results, and also have an employee welfare aspect, in that the company subsidizes a fixed amount when an employee acquires shares. The lower the number of employees the lower the rate of introduction of systems of this type, but as the number of employees increases, the rate of introduction increases. The results also show that no matter what their number of employees, approximately 10% of companies are considering the introduction of an employee shareholding association system.

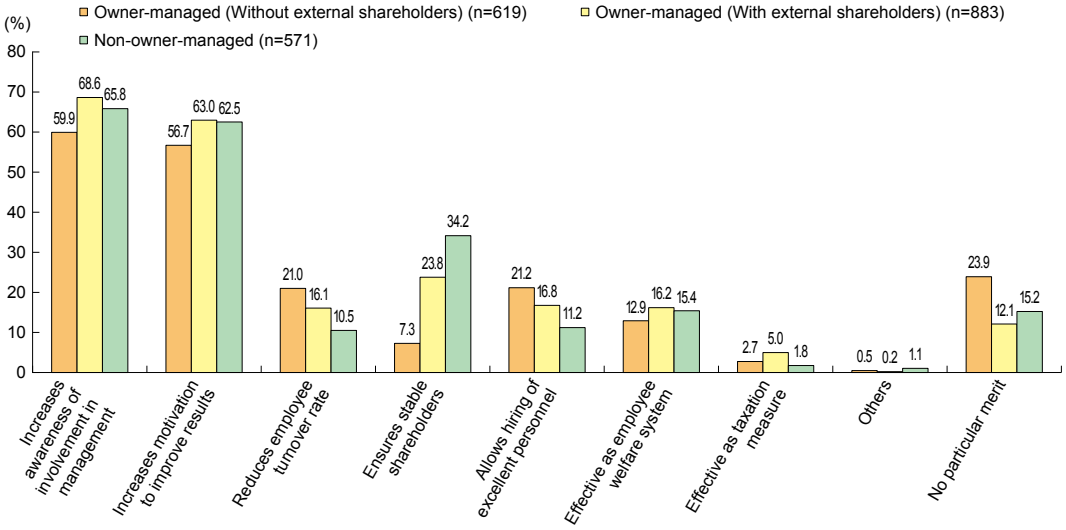
Fig. 1-4-10 Status of introduction of employee shareholding association systems (by number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates responses regarding introduction of employee shareholding association system for each response concerning number of employees in 2016.

Fig. 1-4-11 shows the merits of having executives and employees hold shares in the company (including employee shareholding association systems), by form of ownership. "Increases awareness of involvement in management" was the most frequent response for both owner-managed and non-owner-managed companies, followed by "Increases motivation to improve results." A certain number of owner-managed companies also perceived an improvement in their ability to recruit employees and their employee retention rate as a merit, responding "Reduces employee turnover rate" and "Allows hiring of excellent personnel." A considerable number of non-owner-managed companies also responded "Ensures a stable number of shareholders." This can be considered to result from the fact that non-owner-managed companies tend to have large numbers of shareholders, and their management rights (decision-making right) are dispersed, and a certain number of companies therefore consider the introduction of an employee shareholding association system as a means of realizing a stable number of shareholders.

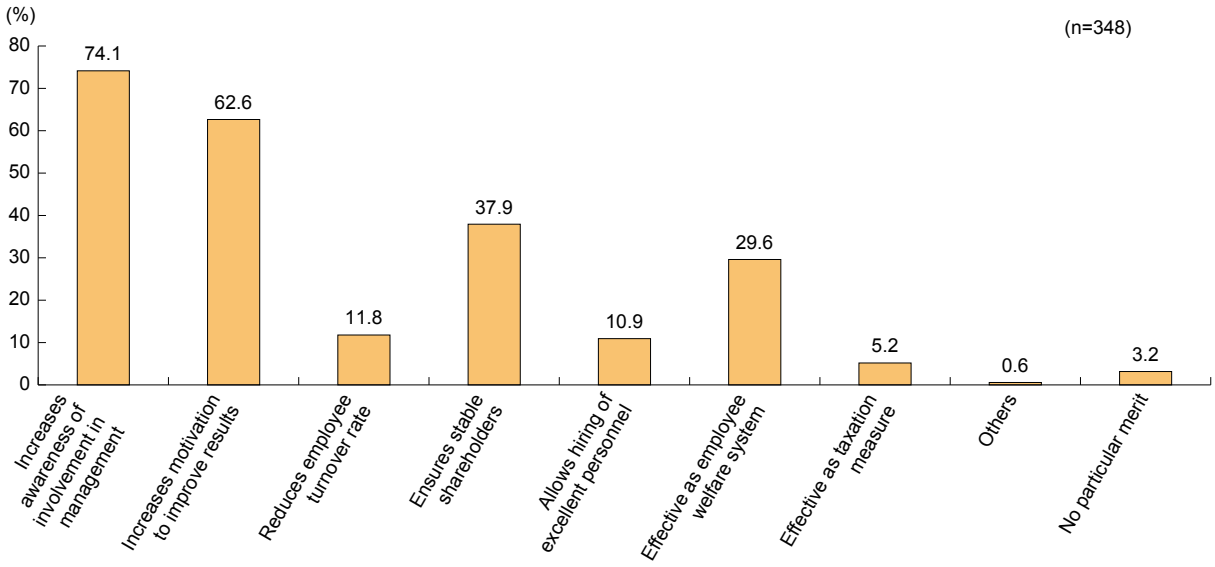
Fig. 1-4-11 Merits of having executives and employees hold shares in the company (including employee shareholding association systems), by form of ownership



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes: 1. Aggregates companies responding regarding the merits of having executives and employees hold shares in the company (including employee shareholding association systems) for each response regarding whether the company is owner-managed.
2. Total does not always equal 100% as multiple responses were possible.

Fig. 1-4-12 shows the merits experienced by companies that have actually introduced an employee shareholding association system. Overall, the results display the same trend as the results shown in Fig. 1-4-11 for the merits of introduction of an employee shareholding association system.

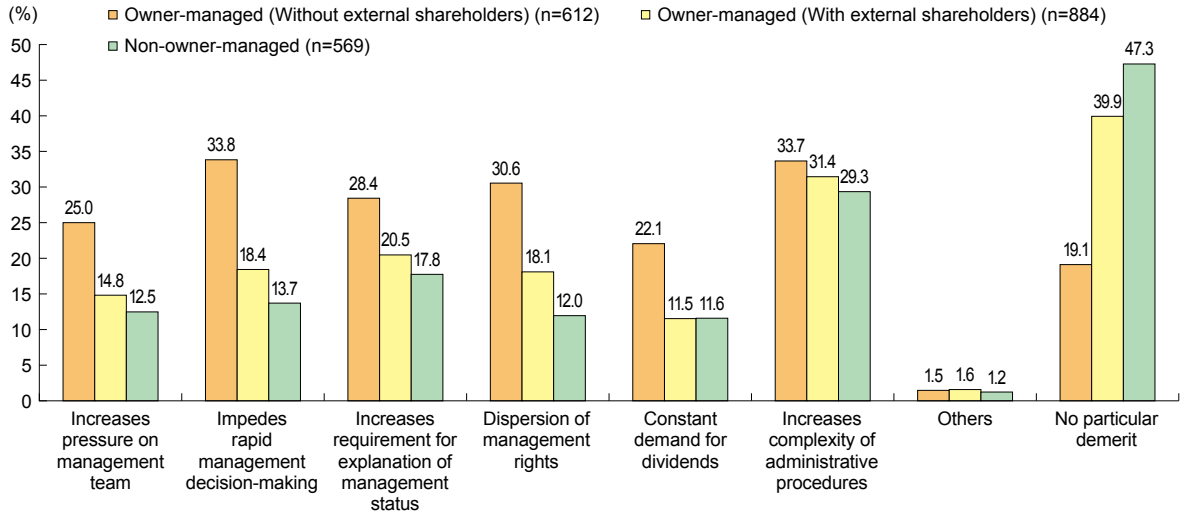
Fig. 1-4-12 Merits experienced by companies that have actually introduced an employee shareholding association system



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes: 1. Aggregates companies responding in relation to the merits that they have experienced by having executives and employees hold shares in the company (including employee shareholding association systems), among companies responding "Introduced 10 years or more previously" or "Introduced within the past 10 years" to the question "Have you introduced an employee shareholding association system?"
2. Total does not always equal 100% as multiple responses were possible.

Fig. 1-4-13 shows the demerits of having executives and employees hold shares in the company (including employee shareholding association systems). Numerous owner-managed companies (without external shareholders) responded that it impedes rapid management decision-making (approximately 34%). In addition, no matter what the form of ownership, companies indicated increased complexity of administrative procedures as a demerit. The results also show that the proportion of companies that already have external shareholders responding that the system offered no particular demerits was high.

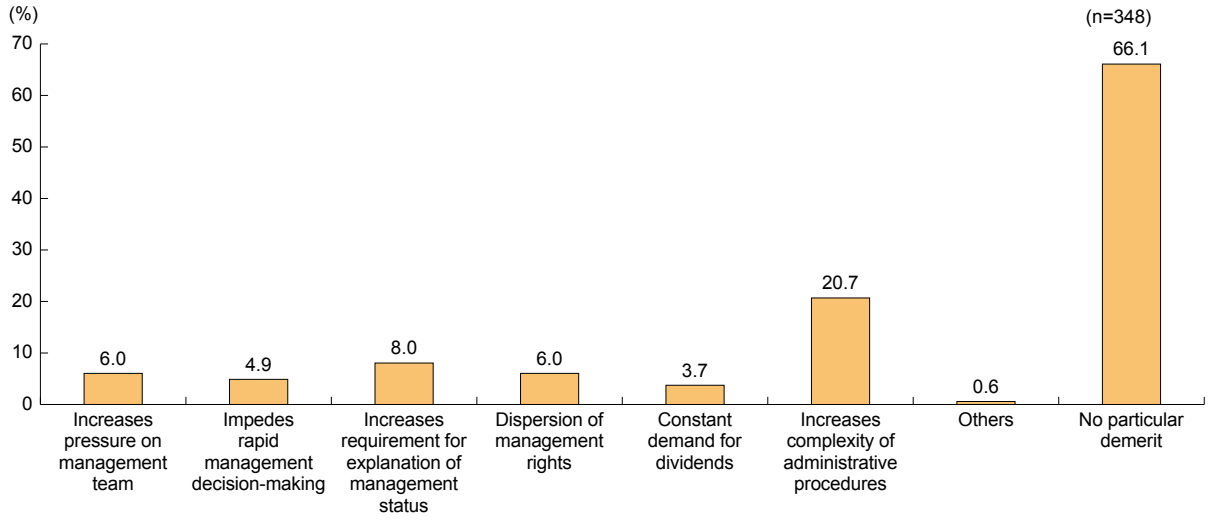
Fig. 1-4-13 Demerits of having executives and employees hold shares in the company (including employee shareholding association systems), by form of ownership



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes: 1. Aggregates companies responding regarding the demerits of having executives and employees hold shares in the company (including employee shareholding association systems) for each response regarding whether the company is owner-managed.
2. Total does not always equal 100% as multiple responses were possible.

Fig. 1-4-14 shows the demerits experienced by companies that have actually introduced employee shareholding association systems. The results show the same trend as shown in Fig. 1-4-13. While approximately 20% of companies responded that increased complexity of administrative procedures was a demerit, approximately 70% responded that there was no particular demerit.

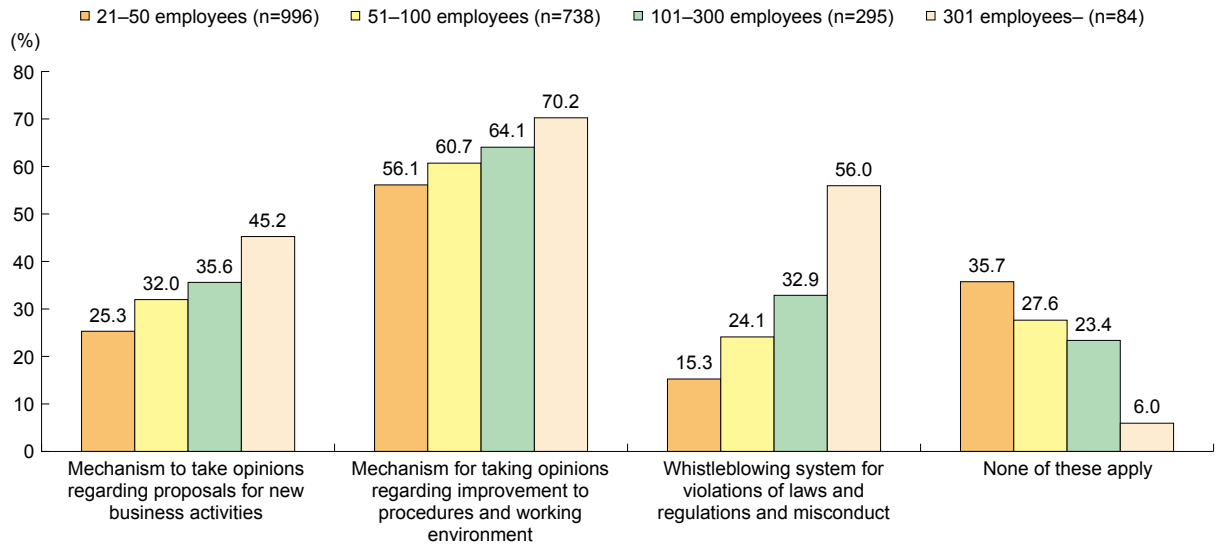
Fig. 1-4-14 Demerits experienced by companies that have actually introduced an employee shareholding association system



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes: 1. Aggregates companies responding in relation to the demerits that they have experienced by having executives and employees hold shares in the company (including employee shareholding association systems), among companies responding “Introduced 10 years or more previously” or “Introduced within the past 10 years” to the question “Have you introduced an employee shareholding association system?”
2. Total does not always equal 100% as multiple responses were possible.

Fig. 1-4-15 shows mechanisms for taking opinions from employees, by number of employees. The higher the number of employees, the greater the likelihood of establishment of a mechanism for taking opinions from employees. The results show that no matter what the size of the company, more than 50% of companies have put in place a "mechanism for taking opinions regarding improvement to procedures and working environment". A little more than half of companies with 301 or more employees have established "whistleblowing systems for violations of laws and regulations and misconduct," while the figure is less than 20% in the case of companies with 21–50 employees.

Fig. 1-4-15 Mechanisms to take opinions from employees (by number of employees)

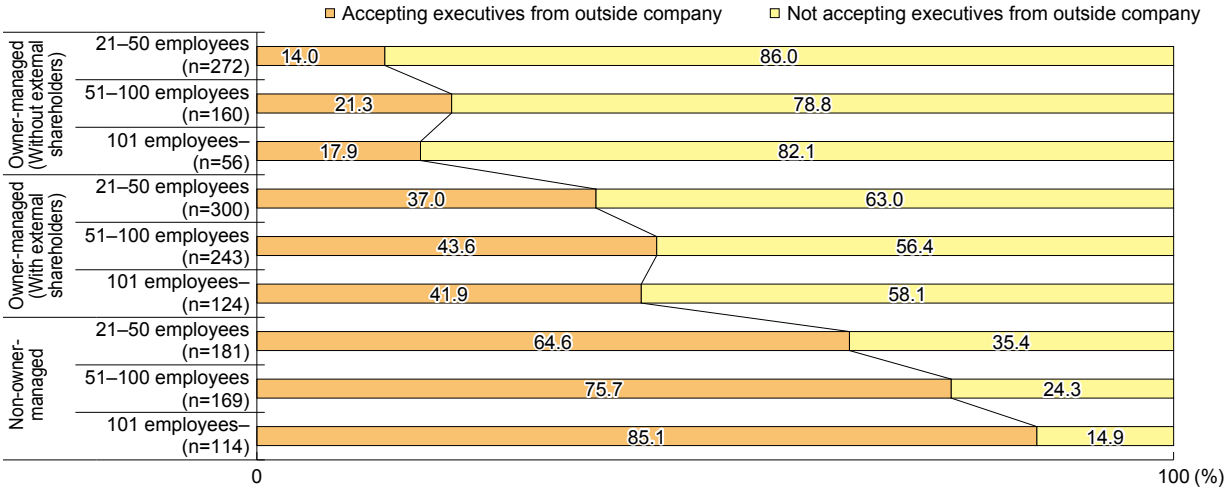


Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Notes: 1. Aggregates responses regarding mechanisms to take opinions from employee for each response concerning number of employees in 2016.
2. Total does not always equal 100% as multiple responses were possible.

(5) Status of acceptance of executives from outside company

Fig. 1-4-16 shows the status of acceptance of executives from outside the company by form of ownership. Only around 20% of owner-managed companies (without external shareholders) have accepted executives from outside the company. Among non-owner-managed companies, the figure is approximately 70%. The rate of acceptance of executives from outside the company does not change significantly with increase in the number of employees, and it can therefore be conjectured that in this case the effect of whether or not the company is owner-managed is greater.

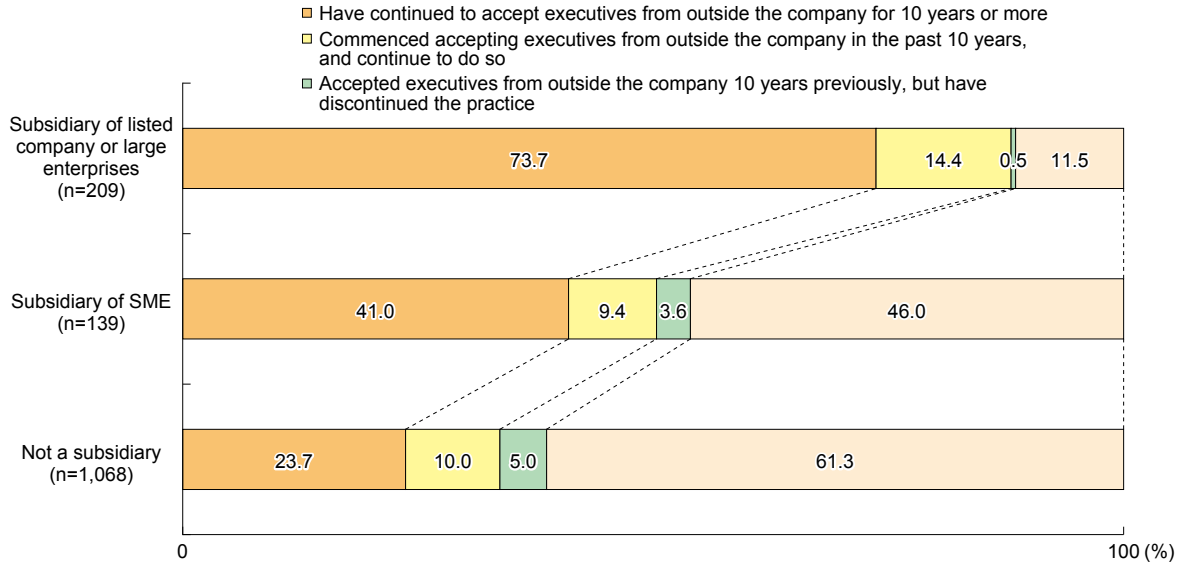
Fig. 1-4-16 Status of acceptance of executives from outside company (by form of ownership and number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates companies responding "Have continued to accept executives from outside the company for 10 years or more" and "Commenced accepting executives from outside the company in the past 10 years, and continue to do so" as "Accepting executives from outside company," and companies responding "Accepted executives from outside the company 10 years previously, but have discontinued the practice" and "Have not accepted executives from outside the company in the past 10 years" as "Not accepting executives from outside company," for each response concerning number of employees in 2016 and whether the company is owner-managed.

Fig. 1-4-17 shows the status of acceptance of executives from outside the company by capital ties. Approximately 90% of companies that are subsidiaries of listed companies or large companies have accepted executives from outside the company for 10 years or more. The figure is approximately 50% in the case of subsidiaries of SMEs. This indicates that companies often accept executives from outside when they have capital ties.

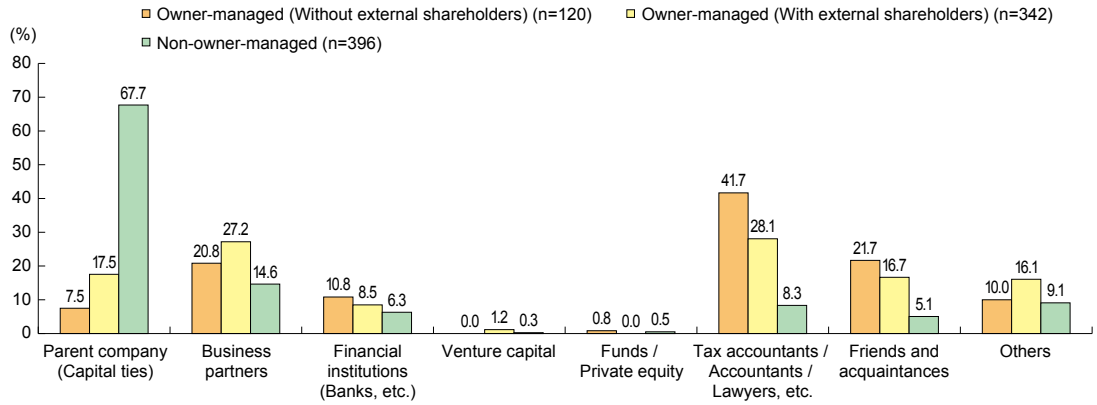
Fig. 1-4-17 Status of acceptance of executives from outside the company by capital ties



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Note: Aggregates responses regarding acceptance of executives (directors or auditors) from outside the company for each response regarding whether the company is a subsidiary.

Fig. 1-4-18 shows the origin of executives accepted from outside the company by form of ownership. The highest proportion of owner-managed companies accept professionals (tax accountants, accountants, lawyers, etc.) as executives, with business partners and friends and acquaintances the next most frequent responses. Among non-owner-managed companies, the highest proportion accept executives from their parent company.

Fig. 1-4-18 Origin of executives accepted from outside the company (by form of ownership)

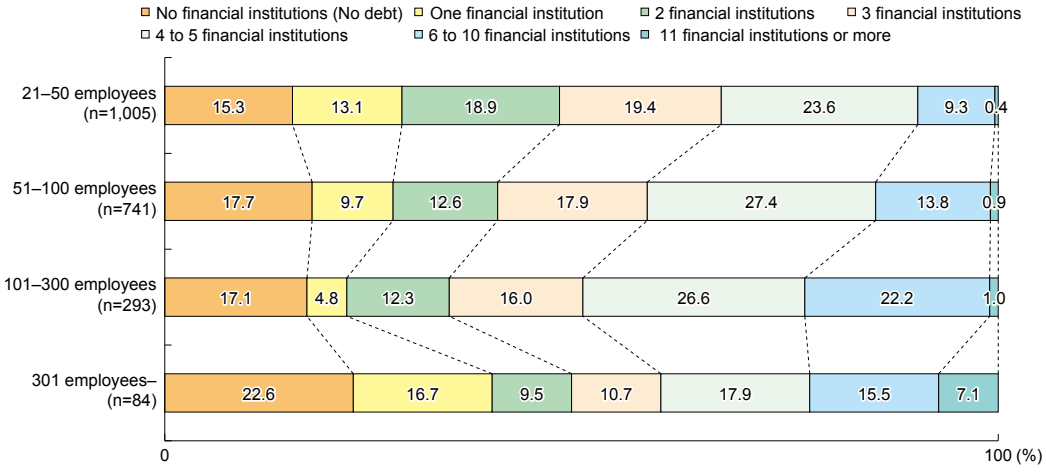


Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes: 1. Aggregates companies responding with regard to the origin of current executives (directors and auditors) among companies responding "Have continued to accept executives from outside the company for 10 years or more" and "Commenced accepting executives from outside the company in the past 10 years, and continue to do so" to the question "Does your company accept executives (directors and auditors) from outside the company?," for each response regarding whether the company is owner-managed.
2. Total does not always equal 100% as multiple responses were possible.

(6) Existence of financial institutions with which the company conducts transactions and a main bank

Fig. 1-4-19 shows the number of financial institutions with which companies conduct transactions by number of employees. The highest proportion of companies with 21–50, 51–100, and 101–300 employees responded "6 to 10 financial institutions." The number of financial institutions with which companies conduct transactions tends to increase with the number of employees, but among companies with 301 or more employees, the proportion of companies responding "No financial institutions (No debt)" and "One financial institution" also tends to increase.

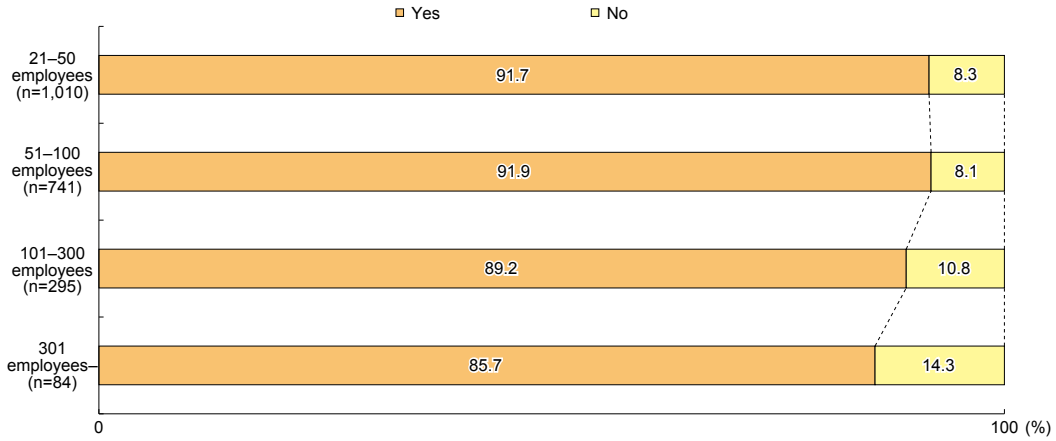
Fig. 1-4-19 Number of financial institutions with which companies conduct transactions (by number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates companies responding "How many financial institutions (banks, credit unions, government-affiliated financial institutions, etc.) do you currently have outstanding debt with?," for each number of employees in 2016.

Fig. 1-4-20 shows responses in relation to whether companies have a main bank[6] or not, by number of employees. Irrespective of their number of employees, approximately 90% of companies responded that they have a main bank. As the number of employees increases, the proportion of companies responding that they have a main bank declines.

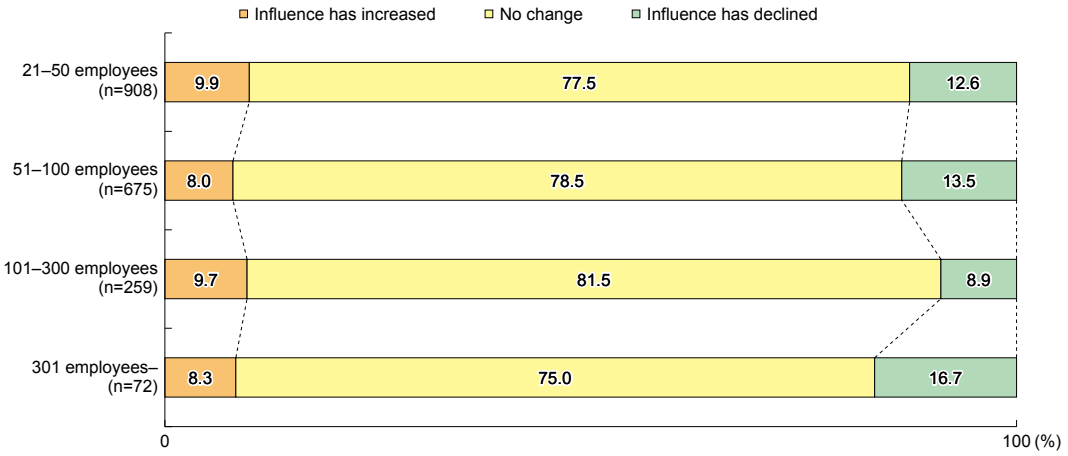
Fig. 1-4-20 Do companies have a main bank? (by number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates companies responding "Yes" to the question "Does your company have a main bank?," for each response regarding number of employees in 2016.

Fig. 1-4-21 shows changes in the degree of influence of the main bank by number of employees. Approximately 80% of companies responded "No change." A comparison of the proportion of companies responding "Influence has increased" and companies responding "Influence has declined" shows that the proportion of companies offering the latter response is as a rule higher.

Fig. 1-4-21 Change in the degree of influence of the main bank (by number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates companies responding to the question "How has the influence of your main bank on management changed in comparison to the situation 10 years ago?" among companies responding "Yes" to the question "Does your company have a main bank?," for each response regarding number of employees in 2016.

6) The question regarding a main bank asked whether or not the company had a financial institution with which it conducts transactions that it recognizes as its main bank, irrespective of its level of outstanding debt with that financial institution.

2. Status of management systems

In this section, we will look in turn at the status of establishment of decision-making methods and a Board of Directors as a decision-making organ, the formulation of management plans and the disclosure of financial information, and efforts to introduce management accounting, all considered by form of ownership.

(1) Effect of difference in form of ownership on management decision-making

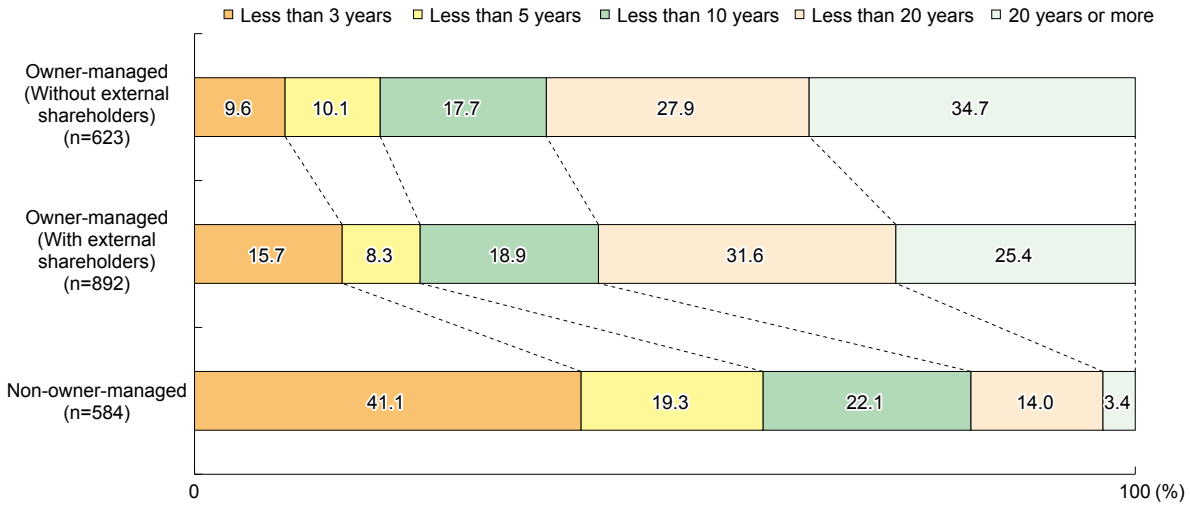
Fig. 1-4-22 shows responses to the question "How many years does your company project into the future in conducting management?," by form of ownership. The highest proportion of both owner-managed and non-owner-managed companies responded "Around 3 years." A high proportion of owner-managed companies also responded "Around 5 years" and "10 years or more," indicating that these companies conduct management from a longer-term perspective than non-owner-managed companies.

Fig. 1-4-22 Number of years companies project into the future in conducting management (by type of ownership)

Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Note: Aggregates responses to the question "How many years does your company project into the future in conducting management?," with the responses "Around 10 years" and "Around 20 years" classified as "10 years or more," for each response as to whether the company is owner-managed.

Fig. 1-4-23 shows the term of appointment of managers by form of ownership. The most frequent response among non-owner-managed companies was "Less than three years," at slightly more than 40%. By contrast, among owner-managed companies (without external shareholders), the most frequent response was "20 years or more," at approximately 35%. More than 60% of these companies offered managers terms of 10 years or more. Comparing owner-managed companies and non-owner-managed companies, it can be considered that the longer-term involvement of managers in the former companies allows them to conduct management from a longer-term perspective.

Fig. 1-4-23 Term of appointment of managers (by form of ownership)

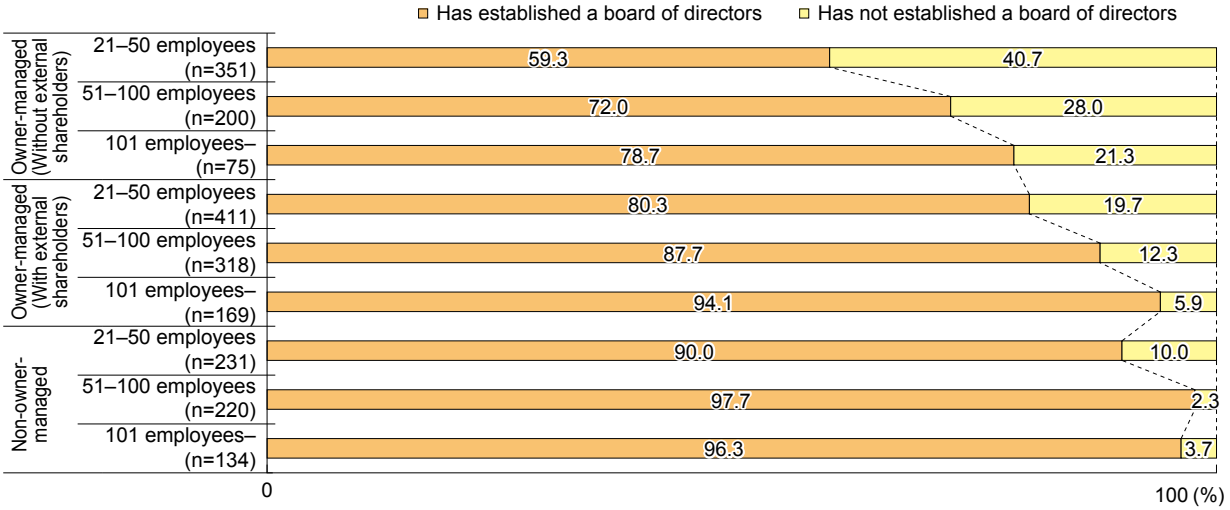


Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Note: Aggregates responses regarding the term in office of the company's President (representative), for each response regarding whether the company is owner-managed.

(2) Status of holding of board meetings and status of discussion in board meetings

Next, we will look at the status of holding of board meetings and the status of discussion in board meetings (Fig. 1-4-24). Looking at owner-managed companies, we see that the rate of establishment of a board of directors is low among owner-managed companies without external shareholders. Among companies with 21-50 employees, almost 60% have established a board of directors, but slightly more than 40% have not. The proportion of companies that have established a board of directors is high among non-owner-managed companies, with little difference being observed depending on the size of the company.

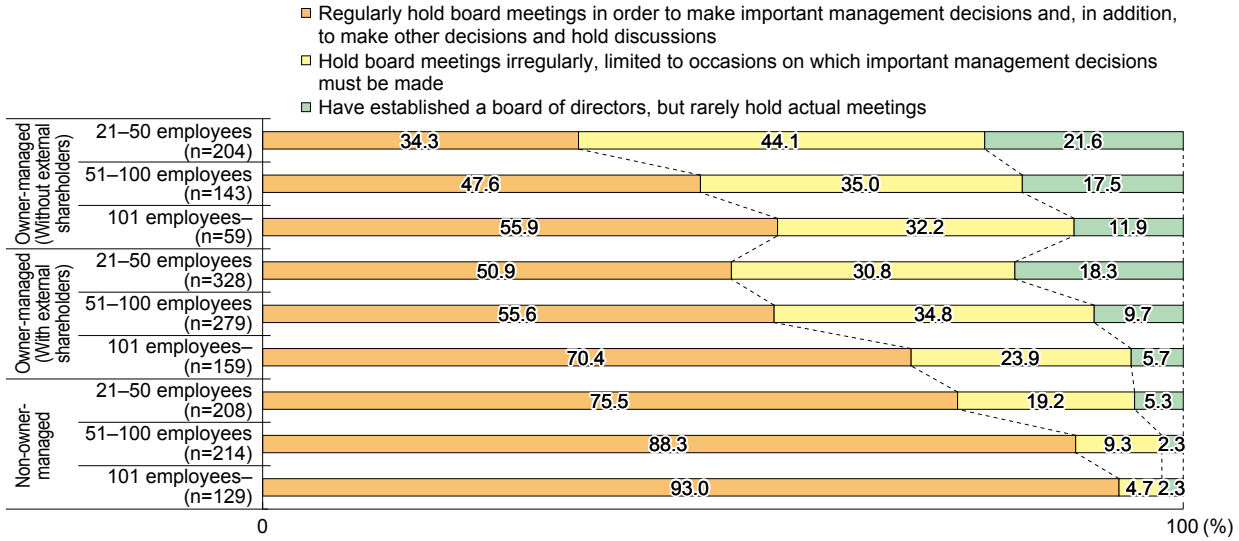
Fig. 1-4-24 Status of establishment of a board of directors (by form of ownership and number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates companies responding with regard to whether or not they have established a board of directors, with companies responding "Have had a board of directors for 10 years or more" and "Established a board of directors within the past 10 years" classified as "Has established a board of directors," for each response concerning number of employees in 2016 and whether the company is owner-managed.

Fig. 1-4-25 shows responses regarding the type of discussions that are actually held in board meetings. Among owner-managed companies and companies with few employees, the proportion of companies that regularly hold board meetings for the purposes of decision-making and discussion is low; these companies hold board meetings irregularly. As the number of employees increases, the proportion of companies for which board meetings function as regular forums for management decision-making also increases.

Fig. 1-4-25 Status of discussions held in board meetings (by form of ownership and number of employees)

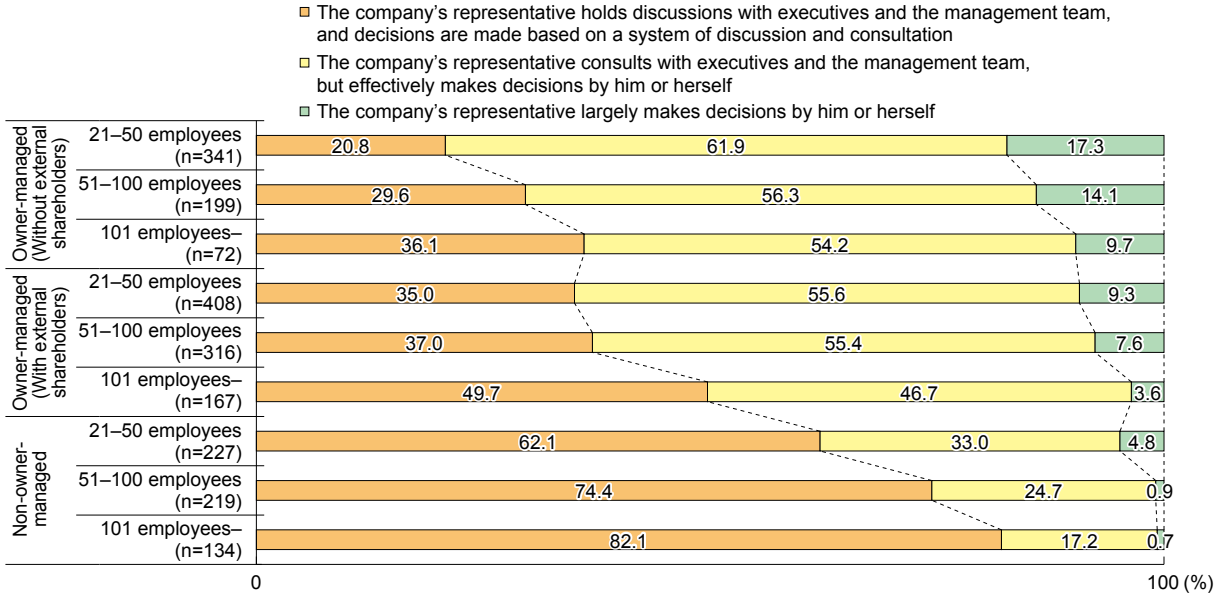


Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).

Note: Aggregates companies responding with regard to the frequency with which they hold board meetings and the status of discussions held at board meetings, among companies responding "Have had a board of directors for 10 years or more" and "Established a board of directors within the past 10 years" to the question "Has your company established a board of directors?," for each response concerning number of employees in 2016 and whether the company is owner-managed.

Fig. 1-4-26 shows companies' methods of decision-making. The proportion of companies with a low number of employees in which the company's representative makes decisions alone is high, but as the number of employees increases, the management decision-making method shifts to one in which the company's representative holds discussions with executives and the management team, and decisions are made on the basis of a system of discussion and consultation.

Fig. 1-4-26 Method of decision-making (by form of ownership and number of employees)

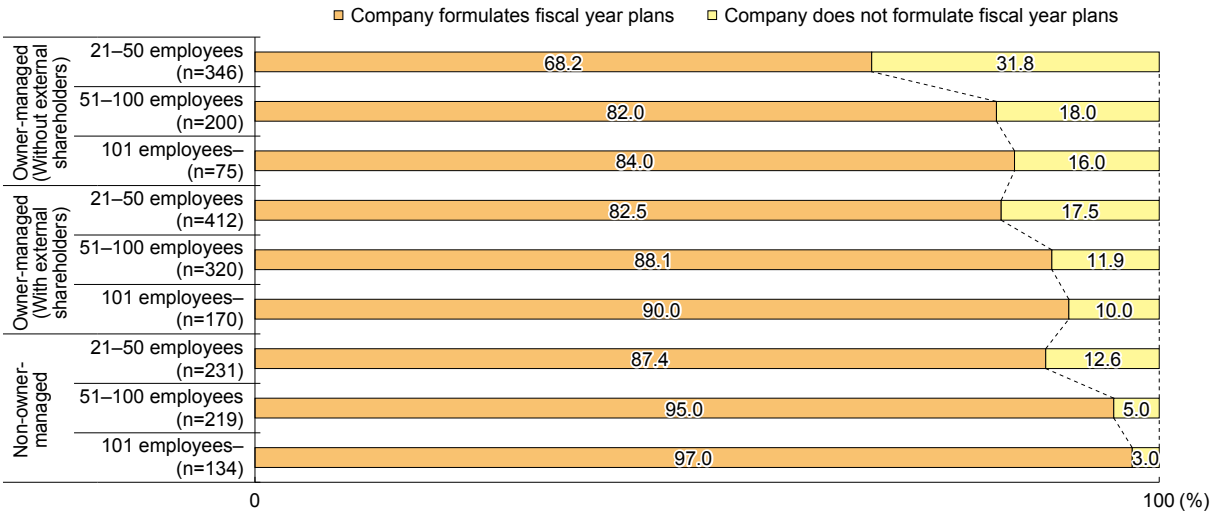


Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates companies responding regarding their method of making important management-related decisions, for each response concerning number of employees in 2016 and whether the company is owner-managed.

(3) Status of formulation of management plans

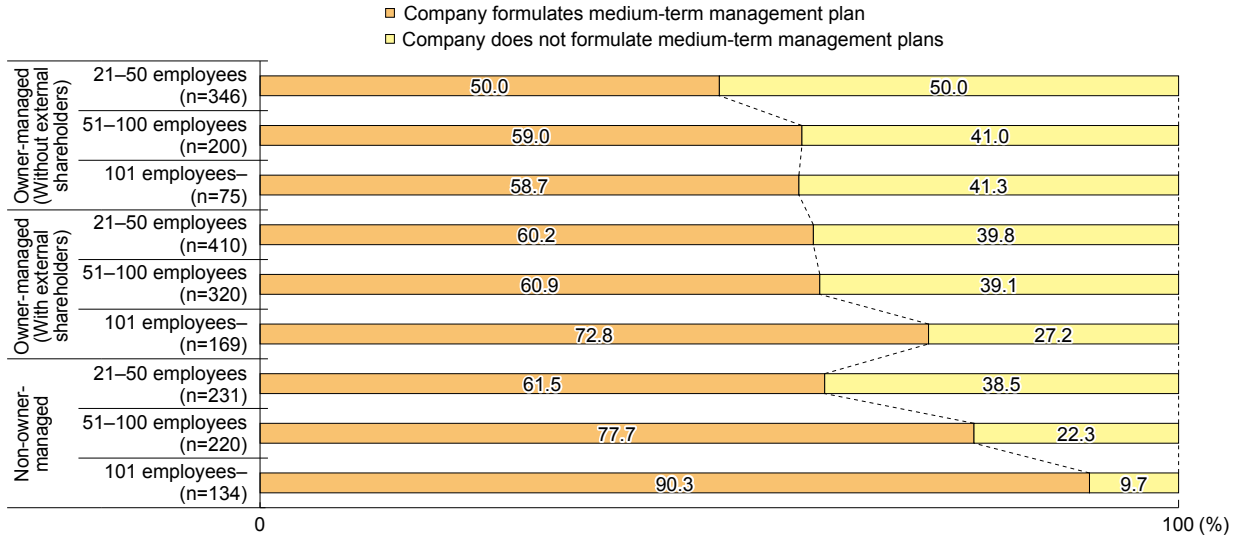
Next, Figs. 1-4-27 and 1-4-28 show the form of ownership of companies and the status of their formulation of management plans. A higher proportion of non-owner-managed companies than owner-managed companies formulate fiscal year plans and medium-term management plans. Looking at the results by number of employees, the proportion of companies formulating fiscal year plans and medium-term management plans increases as the number of employees increases.

Fig. 1-4-27 Status of formulation of fiscal year plans (by form of ownership and number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Note: Aggregates companies responding to the question "Does your company formulate management plans (business plans) for individual fiscal years?," with companies responding "Have formulated fiscal year plans for 10 years or more" and "Commenced formulating fiscal year plans within the past 10 years" classified as "Company formulates fiscal year plans," for each response concerning number of employees in 2016 and whether the company is owner-managed.

Fig. 1-4-28 Status of formulation of medium-term management plans (by form of ownership and number of employees)

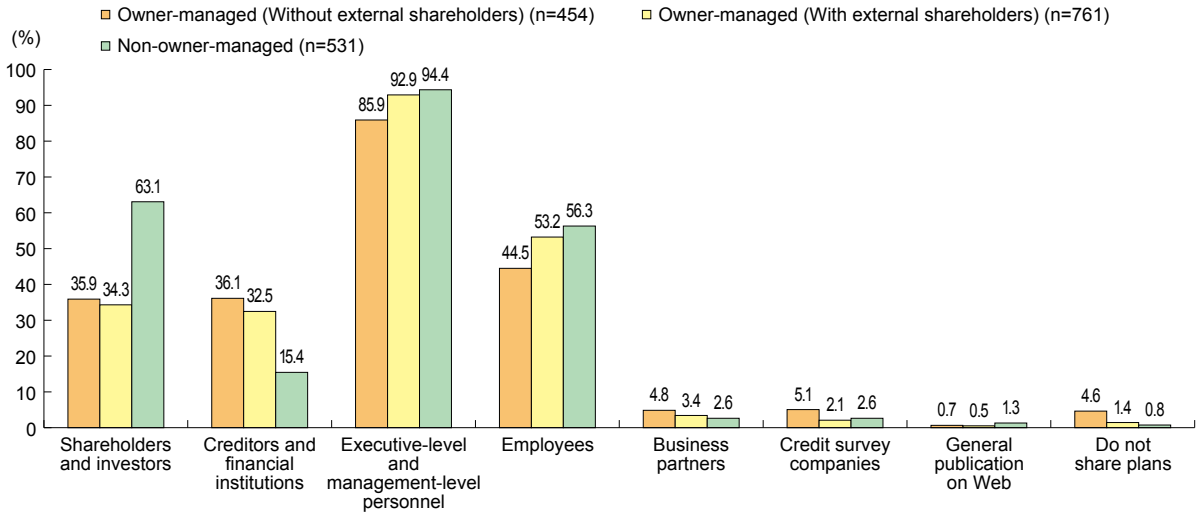


Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).

Note: Aggregates companies responding to the question "Does your company formulate medium-term management plans (plans spanning multiple fiscal years)?," with companies responding "Have formulated medium-term management plans for 10 years or more" and "Commenced formulating medium-term management plans within the past 10 years" classified as "Company formulates medium-term management plans," for each response concerning number of employees in 2016 and whether the company is owner-managed.

Fig. 1-4-29 shows which stakeholders companies that formulate management plans share those management plans with. In the case of both owner-managed companies and non-owner-managed companies, approximately 90% of companies share their plans with executive-level and management-level personnel, and around half share their plans with employees. The results also indicate that around 30% of owner-managed companies share their management plans with their creditors and financial institutions.

Fig. 1-4-29 Sharing of management plans (by form of ownership)



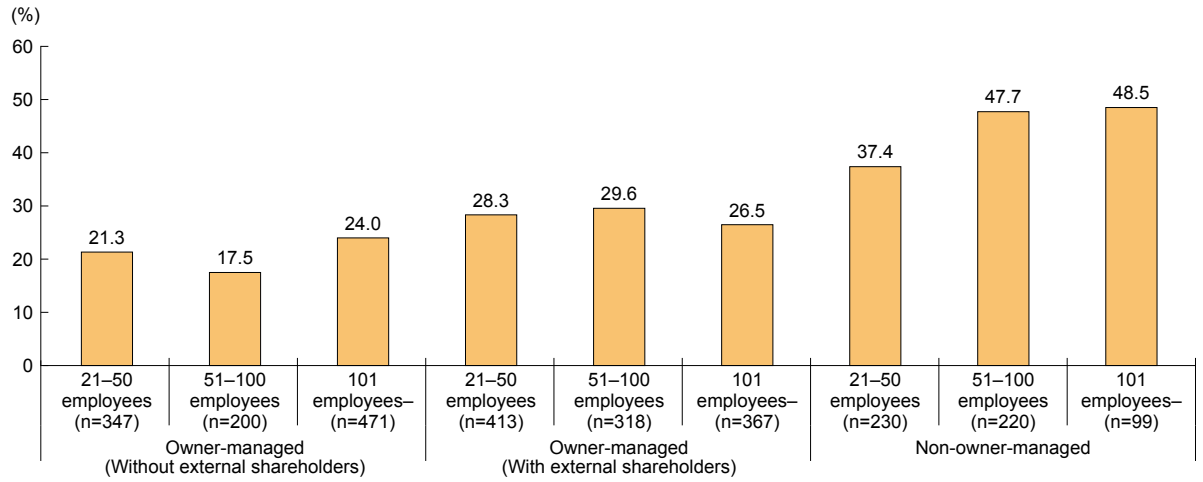
Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).

Notes:
1. Aggregates companies responding with regard to the stakeholders with which they share their plans, among those companies responding that they formulate management plans (business plans) for individual fiscal years and/or medium-term management plans (plans for multiple fiscal years), for each response as to whether the company is owner-managed.
2. Total does not always equal 100% as multiple responses were possible.

(4) Status of disclosure of financial information

Fig. 1-4-30 shows the status of disclosure of financial information to employees. Considered by form of ownership, only approximately 20% of owner-managed companies (without external shareholders) disclose financial information to their employees. Among non-owner-managed companies, more than 40% disclose financial information to employees. One reason for this is the fact that non-owner-managed companies have external shareholders such as employees and executives, and so disclose financial information to shareholders other than owner-shareholders. As a result, many of these companies have no resistance to the disclosure of financial information.

Fig. 1-4-30 Status of disclosure of financial information to employees (by form of ownership and number of employees)

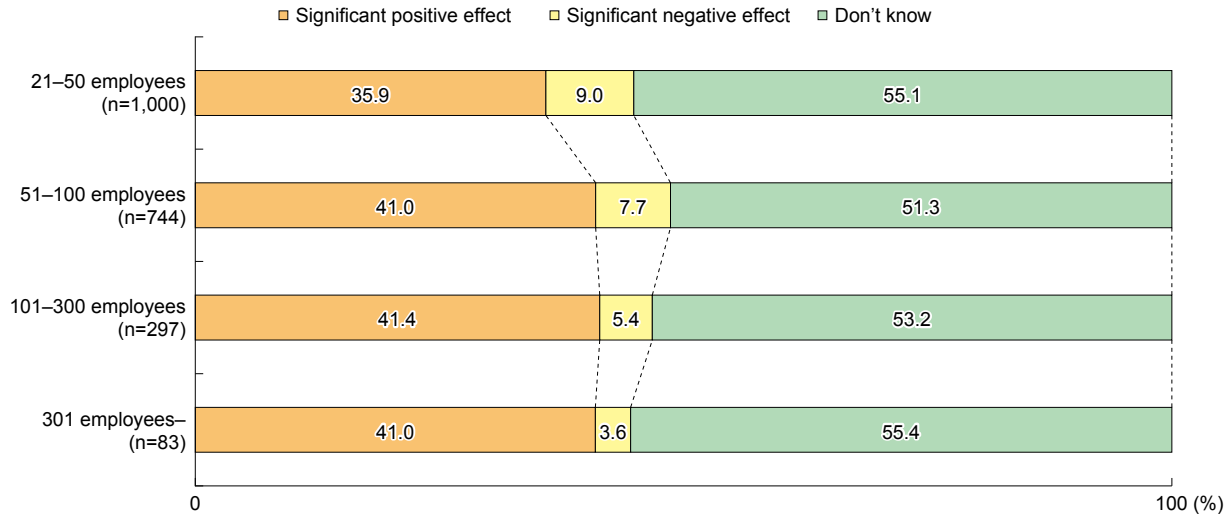


Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).

Note: Aggregates companies responding "Employees" when questioned regarding the scope of their disclosure of financial information (who is privy to disclosure), among those companies responding that they formulate management plans (business plans) for individual fiscal years and/or medium-term management plans (plans for multiple fiscal years), for each response concerning number of employees in 2016 and whether the company is owner-managed.

Fig. 1-4-31 shows companies' awareness of the effect of disclosure of financial information. Around half of companies in each category responded "Don't know" with regard to the effect of disclosure of financial information. However, as the number of employees increases, the proportion of companies indicating that financial disclosure has a significant positive effect also increases.

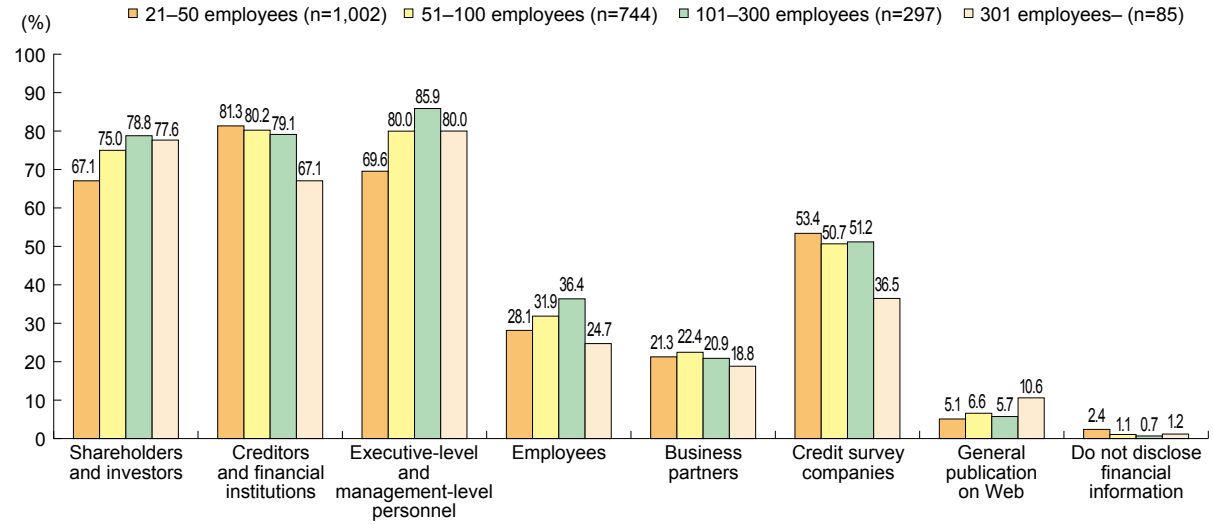
Fig. 1-4-31 Effect of disclosure of financial information (by number of employees)



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Note: Aggregates responses regarding whether the disclosure of financial information has a positive or negative effect on company management, for each response concerning number of employees in 2016.

Fig. 1-4-32 shows the scope of disclosure of financial information by number of employees. More than 80% of comparatively small companies (21–50 employees) responded "Creditors and financial institutions." This may be considered to be due to the fact that these companies disclose financial information in order to procure funds from financial institutions. As the number of employees increases, the proportion of companies that disclose financial information to stakeholders ("Shareholders and investors") and personnel involved in management ("Executive-level and management-level personnel") also increases.

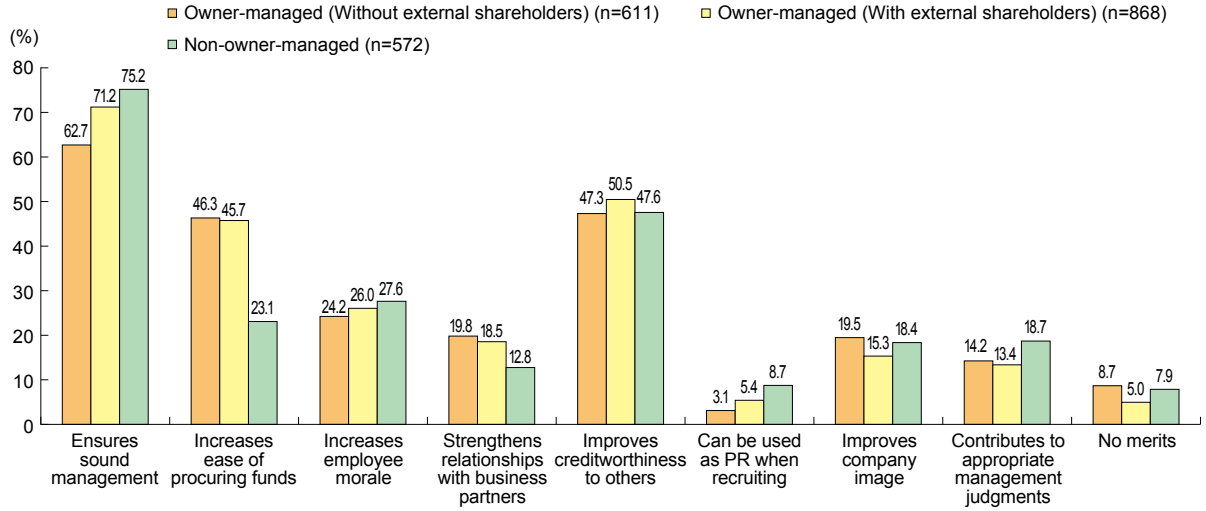
Fig. 1-4-32 Scope of disclosure of financial information (by number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).
Notes: 1. Aggregates companies responding with regard to the scope of their disclosure of financial information (who is privy to disclosure), for each response concerning number of employees in 2016.
2. Total does not always equal 100% as multiple responses were possible.

Fig. 1-4-33 shows the merits of disclosure of financial information. The most frequent response was "Ensures sound management," followed by "Improves creditworthiness to others" and "Increases ease of procuring funds." Owner-managed companies in particular saw "Increases ease of procuring funds" as a merit.

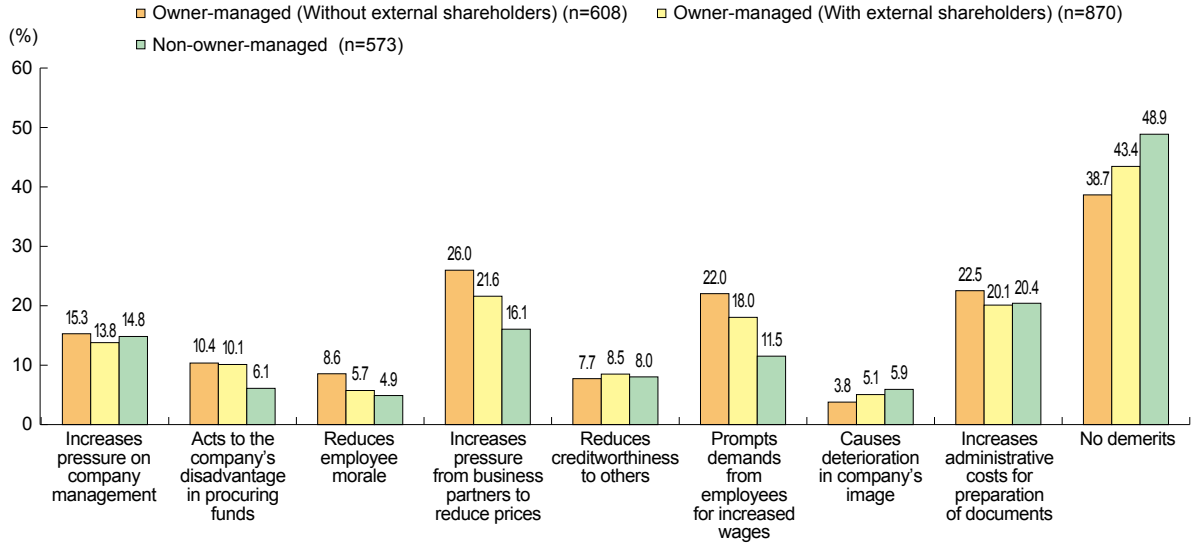
Fig. 1-4-33 Merits of disclosure of financial information (by form of ownership)



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes: 1. Aggregates companies responding with regard to the perceived merits of disclosure of financial information, for each response as to whether the company is owner-managed.
2. Total does not always equal 100% as multiple responses were possible.

Fig. 1-4-34 shows the demerits of disclosure of financial information. The most frequent response was "Increases pressure from business partners to reduce prices," followed by "Increases administrative costs for preparation of documents" and "Prompts demands from employees for increased wages." At the same time, a certain number of companies also answered "No demerits."

Fig. 1-4-34 Demerits of disclosure of financial information (by form of ownership)

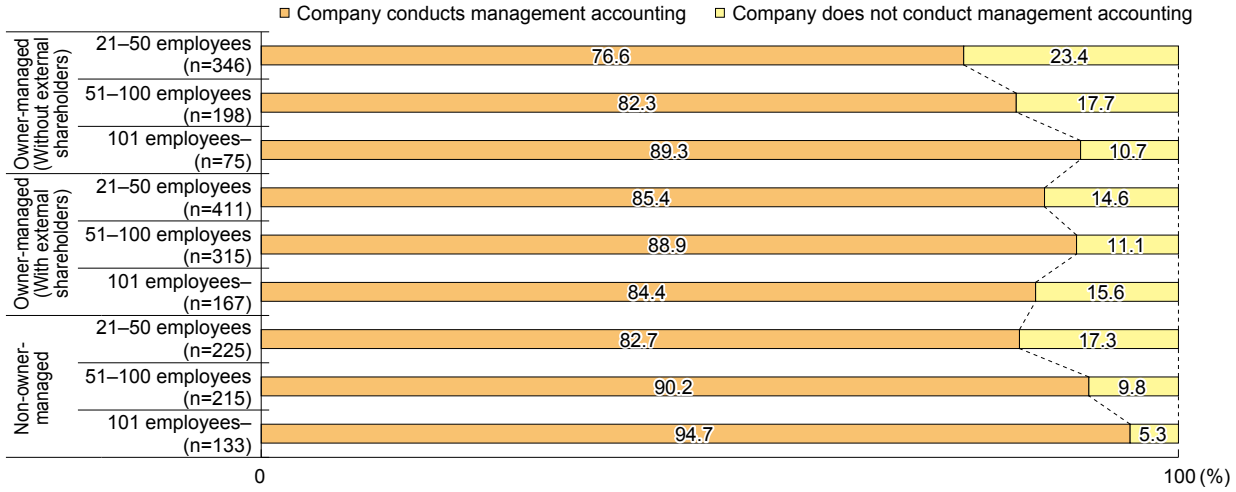


Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Notes: 1. Aggregates companies responding with regard to perceived demerits of disclosure of financial information, for each response concerning whether the company is owner-managed.
2. Total does not always equal 100% as multiple responses were possible.

(5) Status of management accounting initiatives

Fig. 1-4-35 shows the status of management accounting initiatives, by form of ownership and number of employees. Here, management accounting refers to initiatives conducted separately from the preparation of financial statements, such as profitability management and cost management by sales destination, product or department to assist in management decision-making. A higher proportion of non-owner-managed companies than owner-managed companies conduct management accounting initiatives. The proportion of companies that have introduced management accounting tends to increase as the number of employees increases.

Fig. 1-4-35 Status of management accounting initiatives (by form of ownership and number of employees)



Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).

Note: Aggregates companies responding in relation to whether they conduct initiatives such as profitability management and cost management (management accounting) separately from the preparation of financial statements in order to assist in management decision-making, with companies responding “Have conducted management accounting for 10 years or more” and “Commenced management accounting within the past 10 years” classified as “Company conducts management accounting,” for each response concerning number of employees in 2016 and whether the company is owner-managed.

Section 3 Summary

In this chapter, we used statistical methods to analyze the relationship between a company's corporate governance structure and various investment behaviors and management initiatives. The results showed that the adoption of a long-term management perspective, the establishment of management systems such as a board of directors and the holding of regular meetings, the formulation of management plans and the introduction of management accounting initiatives strengthens the tendency to conduct machinery and equipment, IT and R&D investment, develop human resources and seek to realize increased efficiency. Many SMEs are owner-managed companies, a fact that offers a positive aspect in that it enables the adoption of a long-term management perspective, but also a negative aspect in that it tends to suppress initiatives such as the holding of board meetings and the formulation of management plans.

The questionnaire survey discussed in this paper showed that among SMEs, the actors with the greatest influence on management are often internal stakeholders (employees and executives), family members and relatives; few companies have proceeded with the introduction of external shareholders or the acceptance of executives from outside the company; companies have not established systematic decision-making structures (boards of directors); and companies are not proceeding with the disclosure of financial and other information, the formulation of management plans, and the introduction of management accounting initiatives. At the same time, the results indicate that such initiatives are promoted by the process of a company's increasing in size (increasing its number of employees).

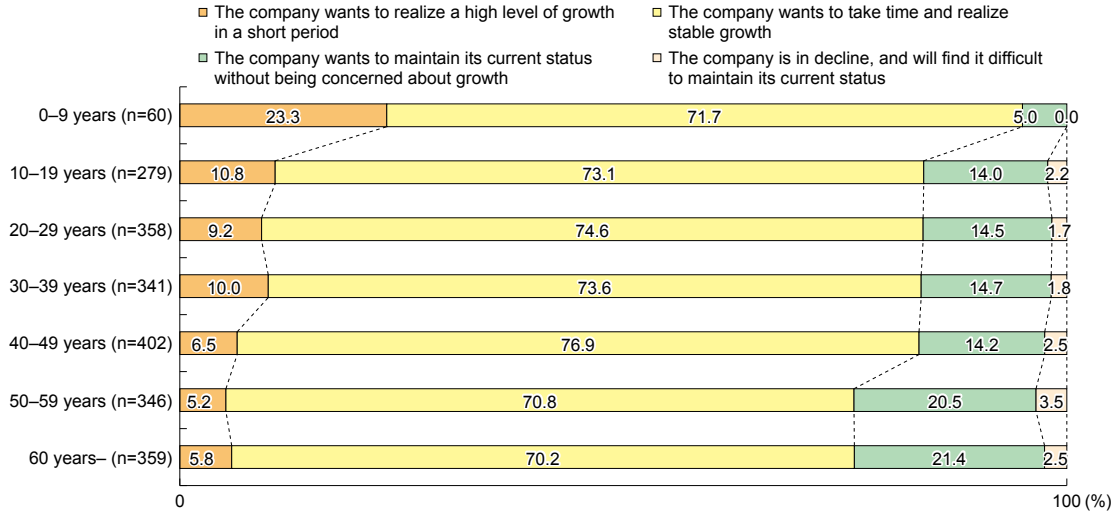
The analysis conducted in this chapter has not clarified the causal relationship between the establishment of corporate governance structures and various management systems and the number of employees a company has: Does the number of employees grow when these systems are established, or does the process of growth in employee numbers promote the establishment of these systems? However, it has verified that there is a specific relationship of correlation between them. The establishment of corporate governance structures (the acceptance of discipline from outside the company and the establishment of management systems) can be considered to promote investment activities and help to realize increased productivity, while promoting sound company growth.

Column 1-4-1 Growth willingness among SMEs

What is corporate growth? Both quantitative and qualitative increases exist. In the former category, we have increases in sales and profits, and increases in employee numbers; in the latter, increases in the ability to provide services, in technological capability, and in employee skills. Which should be aimed for will differ depending on the thinking of companies and managers. Here, we take "corporate growth" to refer to increases in sales and profits and increases in employee numbers, and we consider growth willingness in relation to these.

Fig. Column 1-4-1 (1) shows growth willingness by the number of years that a company has existed. Irrespective of years in existence, around 70% of all companies responded that they wanted to take time and realize stable growth. The fewer years in existence, the greater the proportion of companies responding that they wanted to realize a high level of growth in a short period, with around 23% of companies in existence for less than 10 years providing this response. The results also indicated a tendency for a higher proportion of companies to wish to maintain their present status as their years in existence increased, with around 20% of companies in existence for 50 years or more responding that they would like to maintain their present status without being concerned about growth.

Fig. Column 1-4-1 (1) Growth willingness among SMEs by years in existence

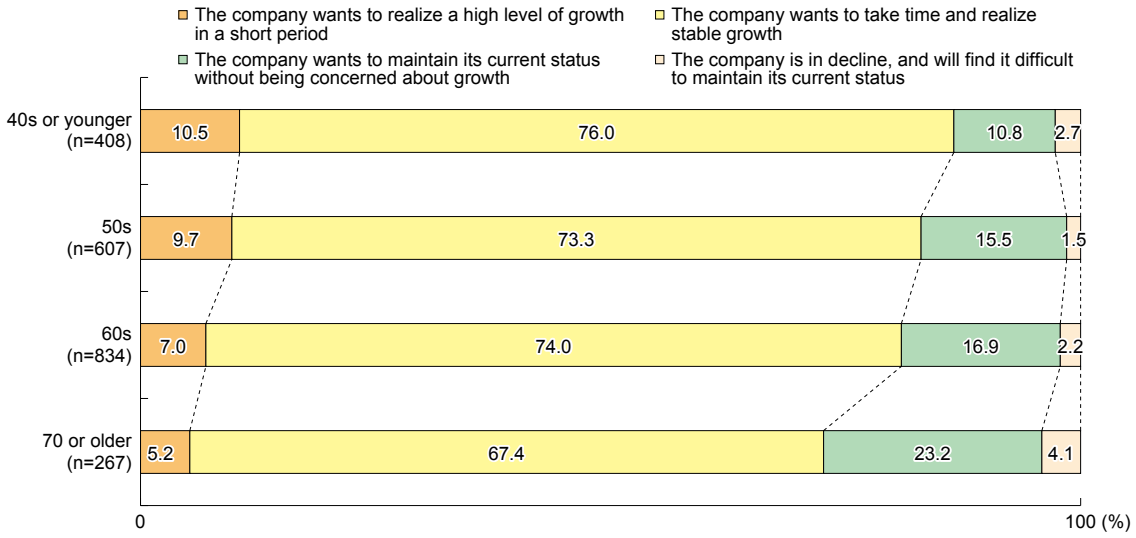


Source: Accenture Japan Ltd, *Report on Commissioned Project for Structural Analysis of Japanese SMEs in Fiscal 2017 and Estimation of Future Structural Changes* (March 2018).

Note: Aggregates companies responding in relation to "corporate growth," understood as increases in sales and profits and increases in employee numbers, for each response concerning the number of years in which the company had been in existence in 2016.

Fig. Column 1-4-1 (2) shows growth willingness by the age of the manager (current President) of the company. The proportion of companies with younger managers responding that they want to realize a high level of growth in a short period is high, while the proportion of these companies responding that they want to maintain their current status without being concerned about growth is low. The results also show that as the age of the manager increases, the proportion of companies that want to realize high growth in a short period declines, while the proportion that want to maintain their current status increases.

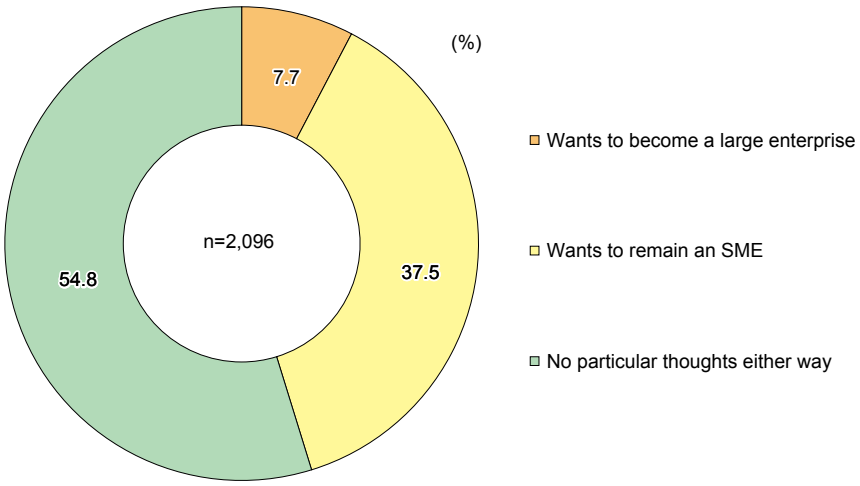
Fig. Column 1-4-1 (2) Growth willingness by age of current President



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Note: Aggregates companies responding in relation to "corporate growth," understood as increases in sales and profits and increases in employee numbers, for each response concerning the age of the current President, with the responses "29 or younger," "30s" and "40s" classified as "40s or younger."

Fig. Column 1-4-1 (3) shows responses offered by companies classified as SMEs when asked whether they aim to become large companies. More than half of the companies responded that they had no particular thoughts either way, while around 8% of all companies surveyed indicated that their goal was to become a large enterprise. A certain number of companies also see merit in being an SME, with around 38% of companies responding that they wanted to remain an SME.

Fig. Column 1-4-1 (3) Inclination of SMEs to become large enterprises or remain SMEs

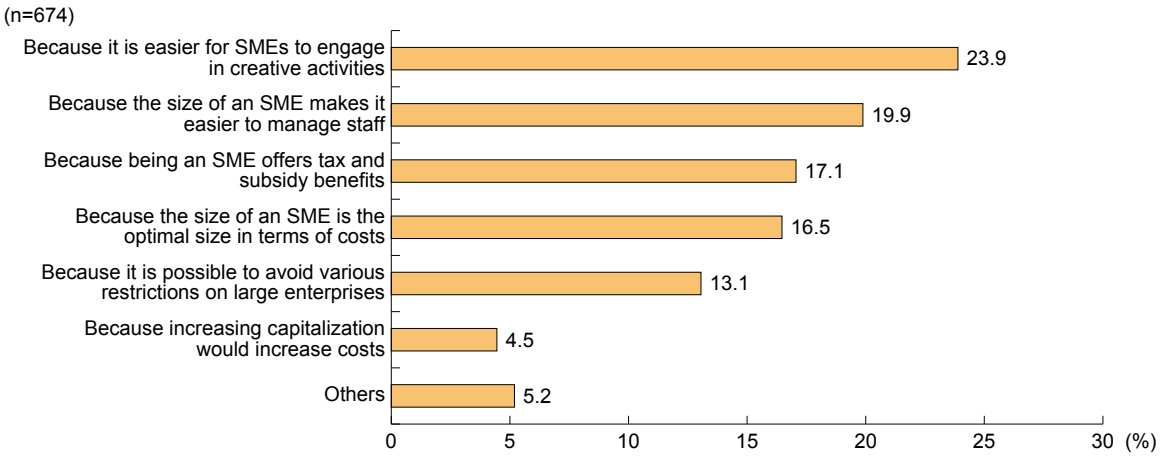


Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).

Fig. Column 1-4-1 (4) focuses on the reasons for the response of the companies shown in Fig. Column 1-4-1 (3) that indicated that they wanted to remain SMEs. The most frequent response, at around 24%, was "Because it is easier for SMEs to engage in creative activities." This was followed by "Because the size of an SME makes it easier to manage staff," at around 20%.

These results can be considered to indicate that there is a fairly large number of companies that see strengths and merits in being an SME, and wish to remain one.

Fig. Column 1-4-1 (4) Reasons that SMEs wish to remain SMEs



Source: Accenture Japan Ltd, *Survey of SME Management Systems and Business Administration* (November 2017).
Note: Aggregates companies offering reasons for responding to the question "What is your company's thinking in relation to becoming a large company?" that they wished to remain SMEs.

Column 1-4-2 History of companies founded in the Meiji era

Case 1-4-1 MAX Co., Ltd.

A company that continues to meet the challenges of the times, treating continuous innovation as its tradition

[A long-established manufacturer of soaps and toiletries that has been in existence for 113 years]

Established as the Ogawa Sekken Seizojo in Osaka City (Osaka Prefecture) in 1905, the company initially manufactured laundry soaps, but turned to the manufacture of toilet soap in 1916, 10 years after its establishment, laying the foundations for the modern company. The company has ridden out difficult periods including two world wars, the oil crisis, and the collapse of the bubble economy, not only through a commitment to making good products (improvement of product quality), but also by means of a flexible and adaptable management stance that encompasses efforts to open up new markets, brand establishment initiatives and the use of marketing. The company's name recognition is also high due to its manufacture of a lemon-scented soap that was used by Japan's elementary school students to wash their hands during the pre- and postwar years. Celebrating 113 years in existence in March 2018, MAX is today a long-established manufacturer and retailer of skin care and body care products.

Below, by looking at the company's history, we attempt to elucidate the essential elements that have supported its management for such a long period.

[Understanding the trends of the times and succeeding in rapidly capturing overseas demand]

10 years following its establishment, when the company shifted its business focus to toilet soaps, the Japanese economy was booming against the background of the First World War. As the external business activities of companies located in Europe, the main theater of battle, began to contract, the company made use of cost competition and commenced exports, opening up markets for its soap in China, Southeast Asia, India, Africa, and Central and South America. The company was successful in capturing overseas demand, eventually exporting about 80% of its production volume of toilet soap. The toilet soap "White Champaca," mainly marketed in China, was a huge hit despite being a luxury product, and this provided the company with the opportunity to establish its brand. The sales capacity and brand power that it developed during this period also provided the company with the motive force that enabled it to weather the long recession that followed the end of the First World War.

[Capital investment, research and development and marketing supporting recovery from destruction during the war]

The company's factory and office were burned down during the Osaka air raids in the Second World War, but it recommenced operation as Ogawa Sekken Seizojo Co., Ltd. in October 1947. Demand swelled from the 1950s, when the Japanese economy recovered and household consumption expanded. Against this background, in addition to renovating its factory facilities in 1957, the company also worked to open up sales channels, for example by establishing contracts with distributors possessing sales networks throughout the country. It is regarded as the earliest of Japan's soap manufacturers to make efforts to cultivate the mass retailer market, and it was from this background that the company's posture of not relying merely on the manufacture of high-quality products but of also prioritizing marketing emerged.

From the 1960s to the 1970s, the company replaced factory equipment with higher-efficiency models on an annual basis, and in April 1982, it constructed a head office building equipped with what was at the time the most advanced equipment, including a gas chromatograph, a spectrophotometer and a polishing and dissolution tester. In addition to this capital investment, in 1985 the company established a Planning and Design Office staffed by three women in order to boost its ability to develop products suited to modern lifestyles. And in 1987, it also focused attention on marketing, for example by establishing a creative office that would focus on product development, package design, and exhibition space design based on the twin concepts of "Young Power" and "Global Vision."

MAX's ability to weather so many difficult situations – the aftermath of the Second World War, the Nixon shock, the oil crises, recession caused by a high yen, the collapse of the bubble economy – was the

result of its focused application of R&D investment and capital investment to enable it to manufacture high-quality products, and efforts to hone its marketing capacity to enable it to accurately grasp the worldviews of its customers and what they require from products.

[Formulating a management direction that remains effective against the background of a lack of human resources]

The creative initiatives that MAX has implemented in response to severe economic conditions over the course of its long company history also provide it with an effective means of responding to the situation today, when a shortage of human resources is becoming increasingly severe in Japan. As a result of appropriately-timed capital investment in the past, 90% of the manufacturing lines in the company's main factory are mechanized or automated. As a result, its employees are no longer required to perform hard physical work or dangerous work. In addition, by systematizing the compounding and adjustment of the components of its products (toilet soaps, body soaps, bath salts, etc.), the company has made it possible for workers to perform procedures even if they possess no specialized knowledge or experience. Together with these initiatives, MAX offers flexible working hours and working days, providing an environment in which even women raising children are able to work.

[Making change is the ongoing tradition]

Today, MAX's goal is to remain essential to its customers for the next 100 years. It has been able to create hit products by following a concept of manufacturing products that solve its customers' problems, for example a persimmon juice soap that solves the problem of personal odor, and a range of skincare and body care products for sensitive skin that solve the issue of skin problems. The company has also commenced other noteworthy efforts – for example, its research and development program has seen it overturn the conventional wisdom and affirm the usefulness of low alkalinity (use of soap) during facial cleansing, and is using its original techniques to create a basic range of skincare products.

The orientation that MAX's tradition has been fostered by continuing transformation is one that has been successively passed down in the company since its foundation.

Noriko Ohno, President

MAX's lemon soap

Case 1-4-2 Hotman Co., Ltd.

A company founded in the first year of the Meiji era whose ethos of manufacturing and management principles see it remaining committed to domestic manufacture

Hotman Co., Ltd. (employees: 413; capital: ¥80 million), which has its head office in Ome City, Tokyo, is a towel manufacturer that was founded in the first year of the Meiji era. Founded in Ome City, which has long been known as a center of the weaving industry, the company has expanded the scope of its business up to the present day, remaining committed to the principles of 100% domestic manufacture and sale through its own directly-managed stores. Below, we will consider the company's 150-year history and explore the essential factors that have enabled it to continue in business for so long.

[Transition from the manufacture of cloth for bedding to towels, a finished product manufactured by the company]

Hotman was founded as the Tanaka Textiles Factory in March 1868, the first year of the Meiji era, in Ome City, Tokyo, which has flourished as a center of the weaving industry since the Kamakura era. Commencing as a manufacturer of cloth for kimonos, the company changed the products that it manufactured with the passing eras, and following the end of the Second World War, it became for a time a manufacturer of futon material and clothing material. After this, in the early 1950s, the then President of the company anticipated the transition towards a western lifestyle in Japan, and decided that the company would change tack, becoming a towel manufacturer. The peak of production of futon material had passed, and, based on the local feeling that the Ome weaving industry must survive, not only did Hotman introduce towel looms, but other local weaving businesses also did so. This change laid the foundations for Ome's later development as a center of towel manufacture. "Unlike futon material, manufacturing towels made it possible to produce a finished product." As a result, the company came to have its own product that it could supply directly to consumers.

[From wholesale to retail in directly-managed stores]

In 1972, Hotman opened its first directly-managed retail store, focusing exclusively on the sale of towels, in a prime location in Tokyo's Roppongi district. At that time, there was no precedent for a weaving company opening a directly-managed store, and Hotman was a pioneer in the establishment of an integrated manufacturing and retail system.

The company also expanded its sales network through wholesale sales at the same time as it developed its directly-managed stores. However, in the 1990s, an influx of cheap overseas products meant that the company was swamped by a wave of price competition, and its wholesale items were retailed at reduced prices in order to respond to the situation. The company realized that wholesale sales meant that it could not affect the retail price, and that what it must deliver high-quality products to its customers at uniform prices throughout the country. Based on this concept, and accepting that it would suffer a significant decline in its volume of sales, the company focused on retail through its directly-managed stores, and at the same time advanced the level of in-sourcing of its production. As a result, the company's sales volume declined to approximately half of its peak. While this significant decline in sales volume temporarily affected Hotman's business performance, the establishment of direct points of contact with customers and the resulting confidence in its prices represent major strengths of the company today.

[100% domestic production: Creating an integrated production system]

At the same time, quite a number of Japanese companies responded to the influx of cheap towels produced overseas by shifting their towel production bases to other Asian countries, in particular China. Hotman, however, remained committed to domestic production, and was determined to continue manufacturing in Ome, where the company had been founded. It set about establishing an integrated production system that would allow it to conduct all production processes in-house. Looking back at that time, company president Masayuki Sakamoto says "Hotman's towels were born from the highly-developed skills and knowledge and the refined aesthetic sense that were fostered in Ome. Seeking to remain close to our customers, even in a small way, we committed to domestic production."

Meanwhile, while some companies that had shifted their production bases overseas temporarily

enjoyed increased profits, factors including wage increases later saw many companies withdrawing. We can say that while a shift overseas appeared rational at the time from a short-term perspective, for Hotman, the management judgement that resulted in its continuing commitment to domestic production was the correct one. This is, no doubt, the can-do management power of a company that has survived and thrived for 150 years since the Meiji era, "looking back to its management principles, but managing its business with a view towards what lies beyond the next development."

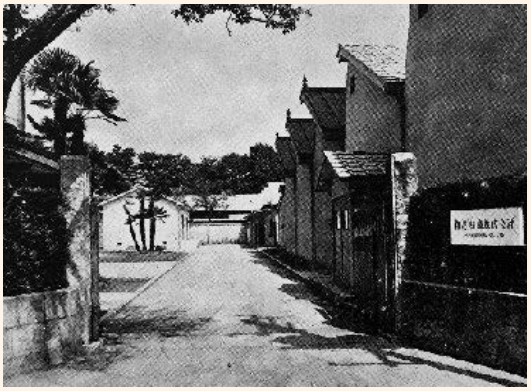
[A manufacturing ethos and a company philosophy passed down by dialogue]

Masayuki Sakamoto, the current president of the company, is its seventh president. Hotman was originally founded by the Tanaka family, but based on its founder's philosophy that a company is a public institution, the president is appointed by the employees. Looking back nostalgically, Mr. Sakamoto says "I was introduced to Hotman's ethos of manufacturing and management principles by the Chairman, having been invited to his house to share tea on the veranda." For Hotman, the company's manufacturing ethos and management principles are things to be passed on across eras through dialogue with members of the next generation.

In 2013, Hotman commenced marketing of its high-absorbency "one-second towel" series, named because the towels, if placed in water, would absorb enough to make them begin to sink within one second. These towels have won a number of awards, including the Encouragement Award of the Small and Medium Enterprise New Technology and New Product Awards organized by the Resona Foundation for Small and Medium Enterprise Promotion and Nikkan Kogyo Shimbun, Ltd. and the Tokyo City Special Award for Venture Technology of the Going-Global Innovations Competition, organized by the Tokyo metropolitan government. Up to that point, Mr. Sakamoto says, the company had maintained the attitude of a craftsperson, focusing on creating good products rather than engaging actively in advertising. Speaking of his determination for the future, Mr. Sakamoto says, "We work every day at our manufacturing activities with the goal of enabling people to experience a slightly richer lifestyle through the medium of the towels that they use every day. It is my job today to make more people aware of the value in using a Hotman towel, and to get them to actually use the towels and experience this value."

Hotman is also actively engaged in initiatives that make a contribution to its own local area; it is involved, for example, in entrepreneurial education[7] activities, in this case producing hand towels designed by local elementary school students and actually selling them in the local area. Mr. Sakamoto says, "I will be happy if the elementary school students who are involved want to join the company in future. I want Hotman to grow while coexisting with the local community." We can certainly expect Hotman to continue to flourish in its Ome home in future.

7) A program to promote diffusion of entrepreneurial education conducted by METI.



Hotman in the 1950s

Instantly absorbent “one-second towels”

Masayuki Sakamoto, President

Part II

Worsening labor shortages and SME productivity reforms

Chapter 1

The worsening labor shortage situation

Chapter 1 will examine the increasingly severe labor shortage situation. It will also analyze how SMEs are making use of diverse personnel such as women, seniors,[1] and the like, a practice that is likely to become more important in future under labor shortage conditions, using various statistical research and the *Survey on Initiatives for Increasing Productivity to Address Labor Shortages*[2] (below, "Questionnaire Survey").

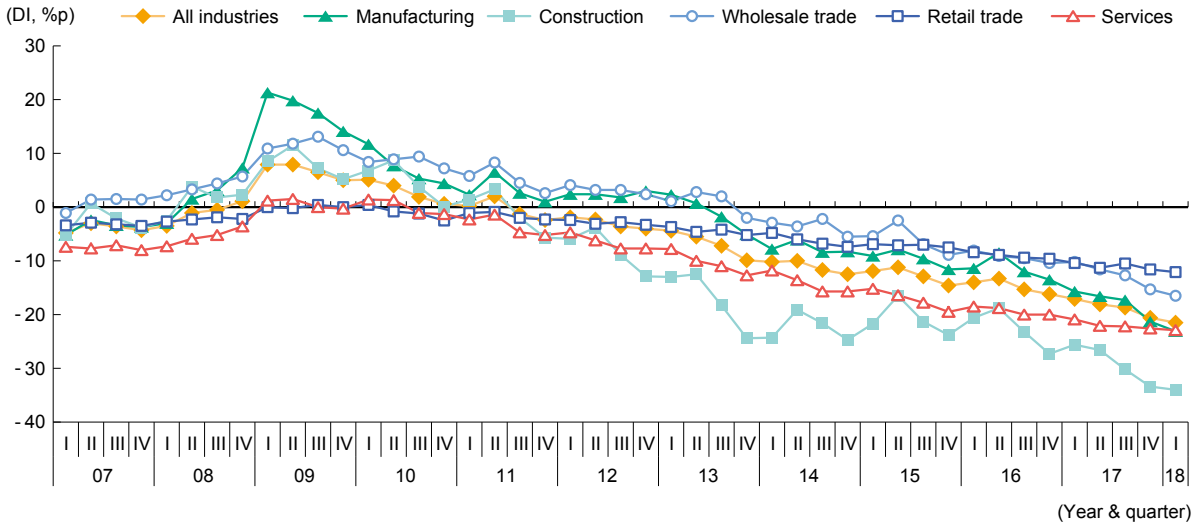
Section 1 Worsening labor shortages at SMEs

Below, we analyze the worsening labor shortage situation at SMEs.

(1) Sense of a labor shortage at SMEs

First, we will look at trends in the DI for excess/shortage of employees, using the S*urvey on SME Business Conditions* of the SME Agency and Organization for Small & Medium Enterprises and Regional Innovation, Japan, to see what the sense of a labor shortage is at SMEs, by industry sector (Fig. 2-1-1). A look at this shows that in all industry sectors, the DI peaked in 2009 and turned downward overall after that. In all industry sectors, the percentage that answered they had a "Shortage" of employees has been greater than those indicating they had an "Excess" since the fourth quarter of 2013. The sense of a labor shortage is particularly strong in construction and services.

Fig. 2-1-1 DI for excess/shortage of employees by industry



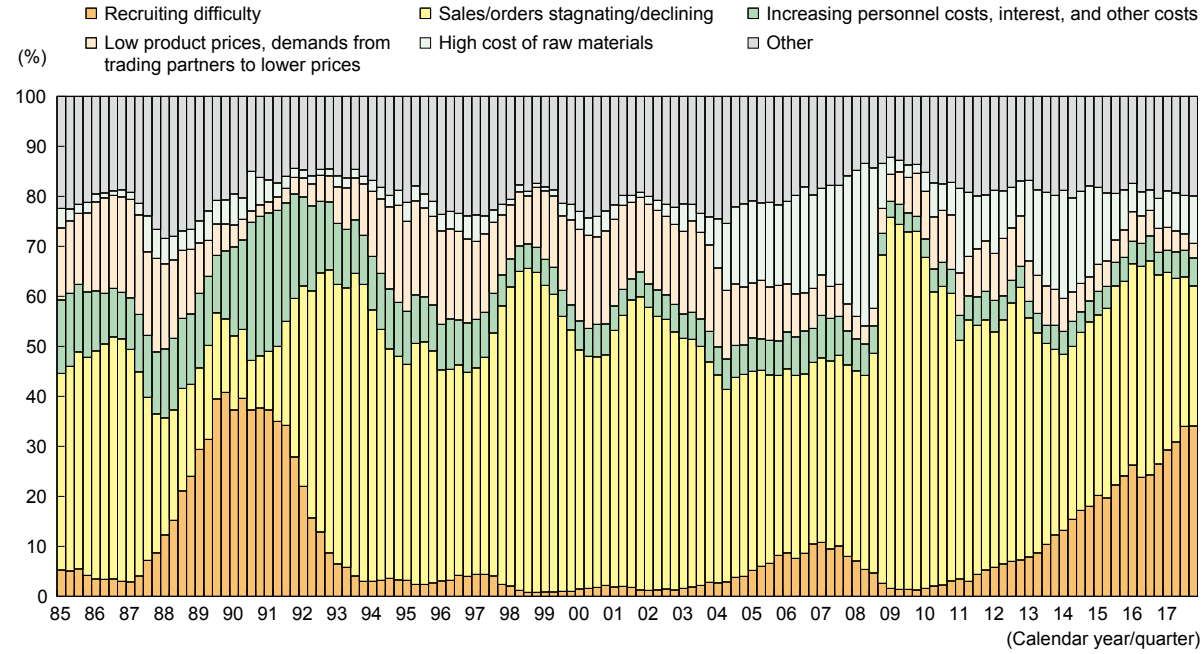
Source: SMRJ & SME Agency, *Survey on SME Business Conditions*.
Note: The DI for excess/shortage of employees is the percentage (%) of enterprises that said they have an excess of employees for the current term, minus the percentage (%) of enterprises that said they have a shortage.

1) In this chapter, "seniors" are defined as personnel age 60 or older.
2) A questionnaire survey conducted by Mitsubishi UFJ Research and Consulting Co., Ltd. on 30,000 SMEs in December 2017 (response rate 13.8%). It should be kept in mind that the subject of this survey was SMEs with at least 21 regular employees.

(2) Management issues facing SMEs

Fig. 2-1-2 lists SME management problems found by the Japan Finance Corporation's *Nationwide SME Trends Survey*.[3] It shows that the ratio of enterprises answering, "Recruiting difficulty" has continued rising the last few years, and is approaching the level of the period of economic expansion in the latter half of the 1980s and first part of the 1990s. This tells us that SMEs are strongly aware that their labor shortages are a management issue.

Fig. 2-1-2 Management problems



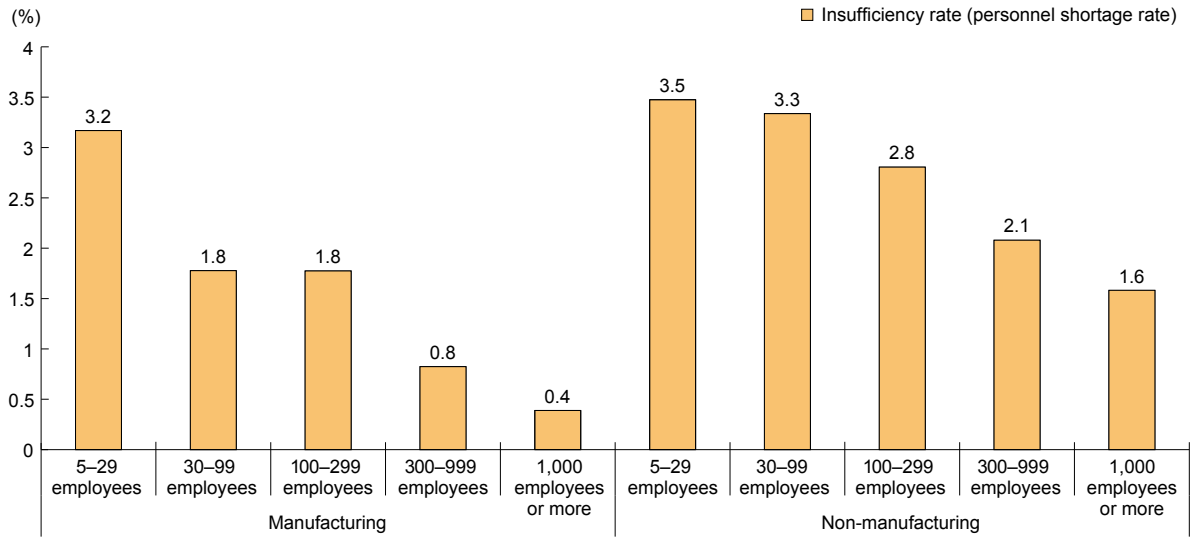
Source: Japan Finance Corporation, *Nationwide SME Trends Survey* (SMEs edition)
Note: Here, "SMEs" means enterprises that are Japan Finance Corporation clients that, in principle, have at least 20 employees.

(3) Personnel insufficiency rates

Fig. 2-1-3 shows personnel insufficiency rates by number of employees at enterprises. This suggests that the smaller the enterprise, the higher the personnel insufficiency rate. Comparing manufacturing and non-manufacturing industries, the insufficiency rate is higher on the whole at non-manufacturing industries.

3) Japan Finance Corporation's *Nationwide SME Trends Survey* studies small enterprises (those with fewer than 20 employees, in principle) and SMEs (those with 20 or more employees, in principle) in separate editions. This section looks at "management problems" in the SMEs edition, but the ratio answering "Recruiting difficulty" has recently likewise been rising on the list of "management problems" at small enterprises.

Fig. 2-1-3 Personnel insufficiency rates by number of employees

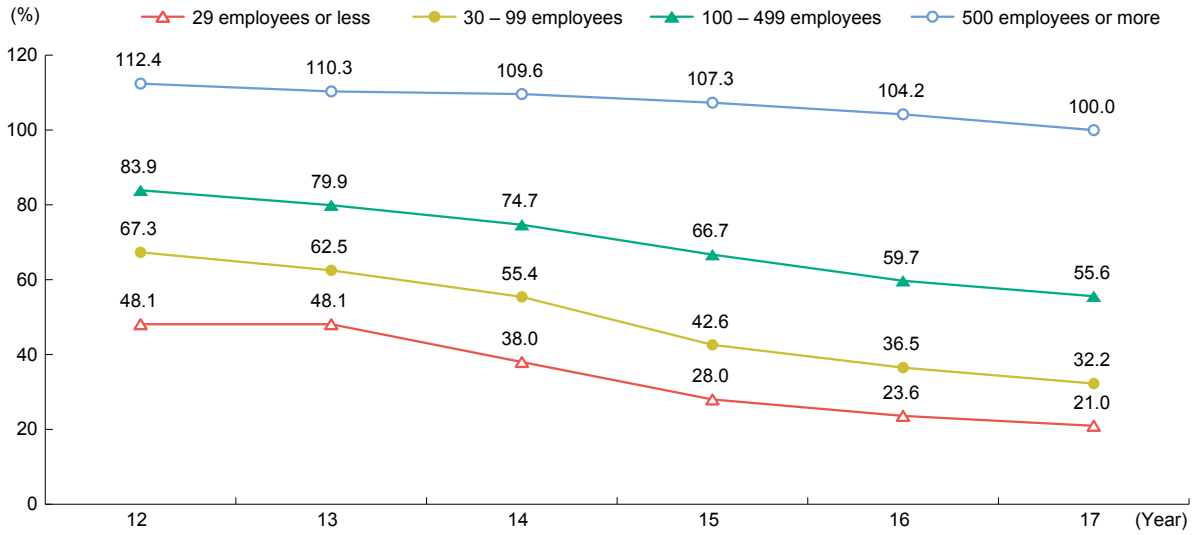


Source: Recompiled from Ministry of Health, Labour and Welfare, *FY2016 First Half Survey on Employment Trends.*
Notes: 1. Insufficiency rate = (number of persons lacking / number of regular workers) × 100
2. The insufficiency rate in this case is found by finding the insufficiency rate at each business establishment, adding them together, then dividing by the number of business establishments.

(4) Ratio of placement to job opening among high school graduates

Next, we look at trends in the ratio of placement to job opening among high school graduates by number of employees (Fig. 2-1-4). This ratio has been on a declining trend for the last five years at enterprises of all scales, and the decline has been especially notable at enterprises with 29 employees or less, who recently have only been able to fill about one-fifth of their job openings.

Fig. 2-1-4 Ratio of placement to job opening among high school graduates, by number of employees

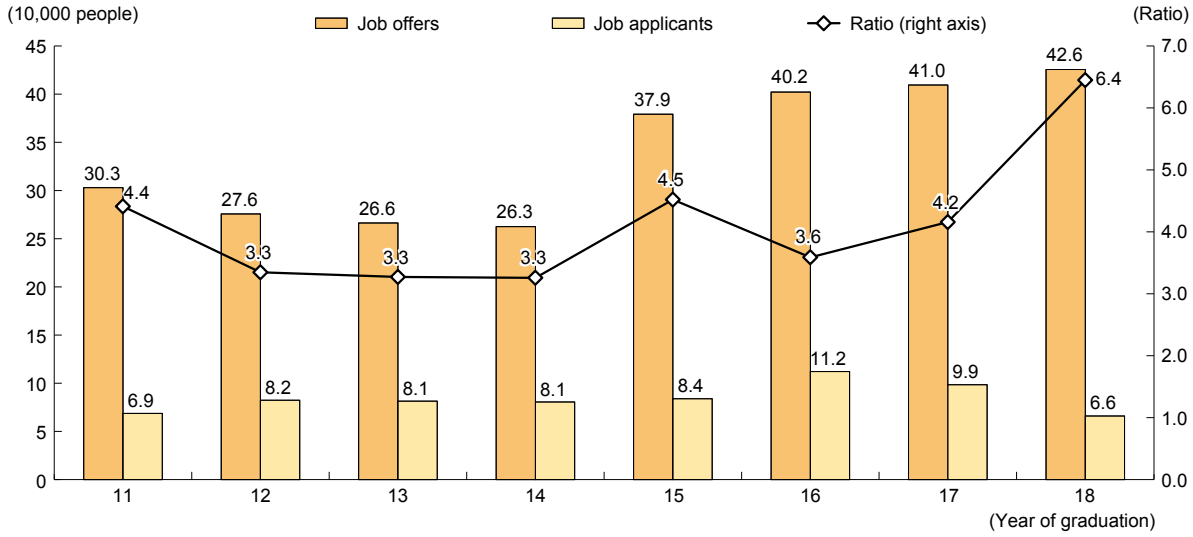


Source: MHLW, *Employment Referrals for New School Graduates.*
Notes: 1. The above yearly figures for new school graduates are based on the number of job seekers handled by public employment security offices and schools and their status of employment.
2. Ratio of placement to job opening = (number of job seekers employed / number of job openings) × 100

(5) Trends in number of job openings and number of job seekers

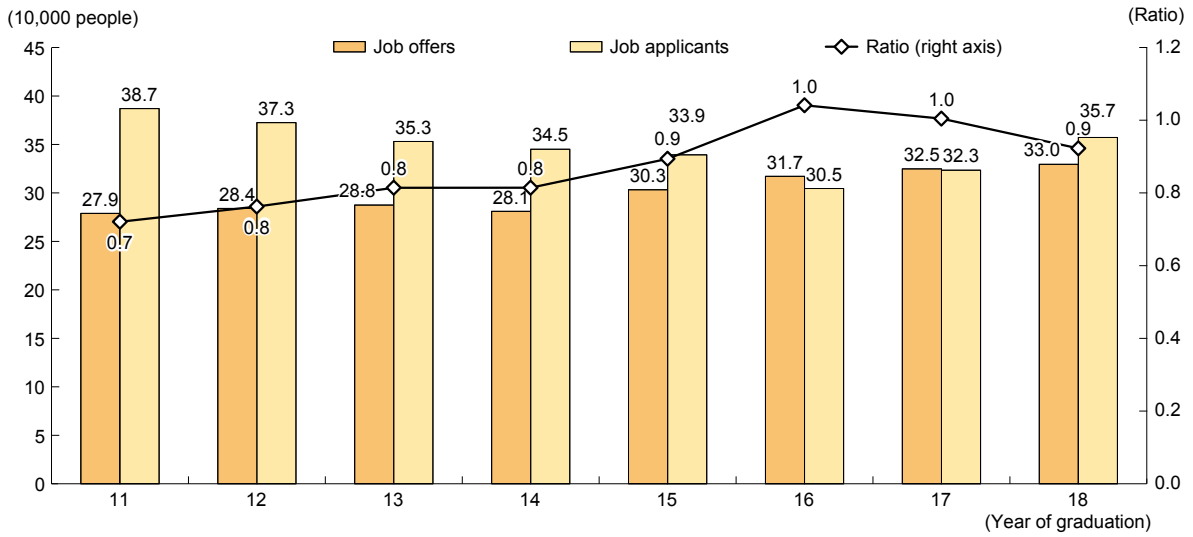
Next, we look at trends in enterprises' number of job openings for university students planning to graduate and number of job seekers, by number of employees. At enterprises with 299 employees or less, the job opening-to-application ratio had been about 3–4, but is rising recently. In FY2017, it grew considerably to 6.4 (Fig. 2-1-5). At enterprises with 300 or more employees, the number of job seekers has slightly outnumbered the number of job openings each year recently, so the job opening-to-application ratio is about 1 (Fig. 2-1-6).

Fig. 2-1-5 Number of job openings for prospective university graduates and number of prospective university graduate job seekers at enterprises with 299 employees or less



Source: Recruit Works Institute, *Works University Graduate Job Offers to Job Seekers Ratio Survey*.

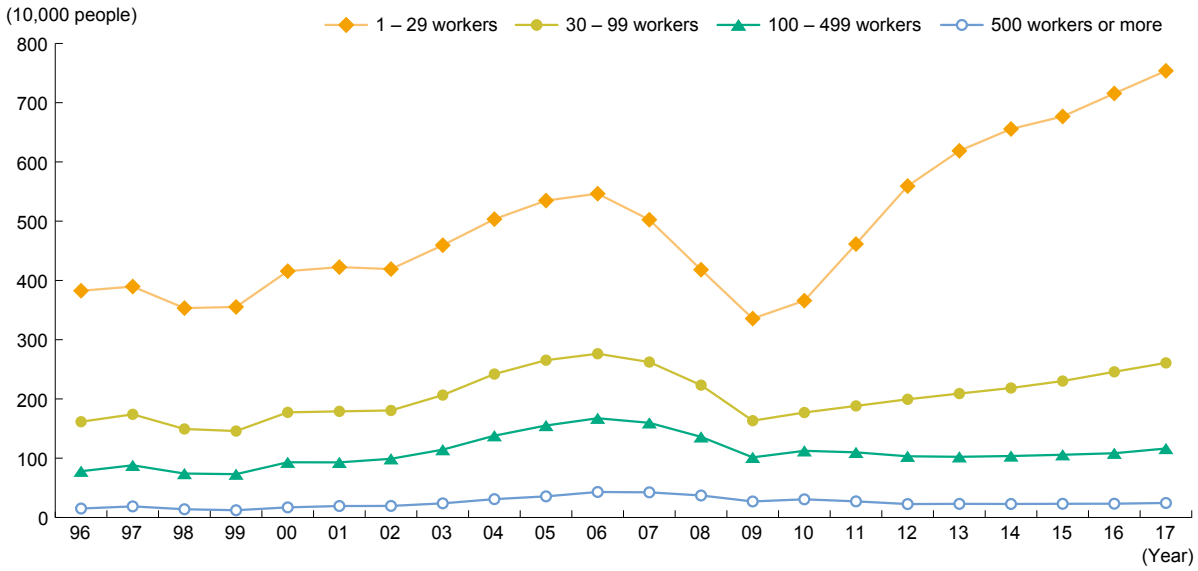
Fig. 2-1-6 Number of job openings for prospective university graduates and number of prospective university graduate job seekers at enterprises with 300 employees or more



Source: Recruit Works Institute, *Works University Graduate Job Offers to Job Seekers Ratio Survey*.

Fig. 2-1-7 shows trends in the number of job openings by number of employees at the business establishment. It shows that in 2009, the number of job openings fell at businesses of all categories of number of employees, but since then the number has been increasing the smaller the number of employees.

Fig. 2-1-7 Number of new job offers by number of employees of business establishment



Source: MHLW, *Employment Referrals for General Workers*.

(6) Trends in number of employees

This part looks at trends in number of employees at enterprises by workforce size, with a focus on enterprises with 1–29 employees and enterprises with 500 employees or more in the past 20 years. It shows that in the early part of that period, the number of employees stayed flat at both groups, but entering the 2000s, the number of employees at enterprises with 1–29 workers began a declining trend, while that at enterprises with 500 workers or more started a rising trend. The two totals crossed over each other in 2014 (Fig. 2-1-8). It is inferred that human resources are moving to large-scale enterprises year by year.

Fig. 2-1-8 Number of non-agriculture or forestry workers by workforce size

Source: MIC, *Labor Force Survey (Historical Data/Basic Tabulation)*.

Section 2 Japan's population dynamics and changes in employee structure

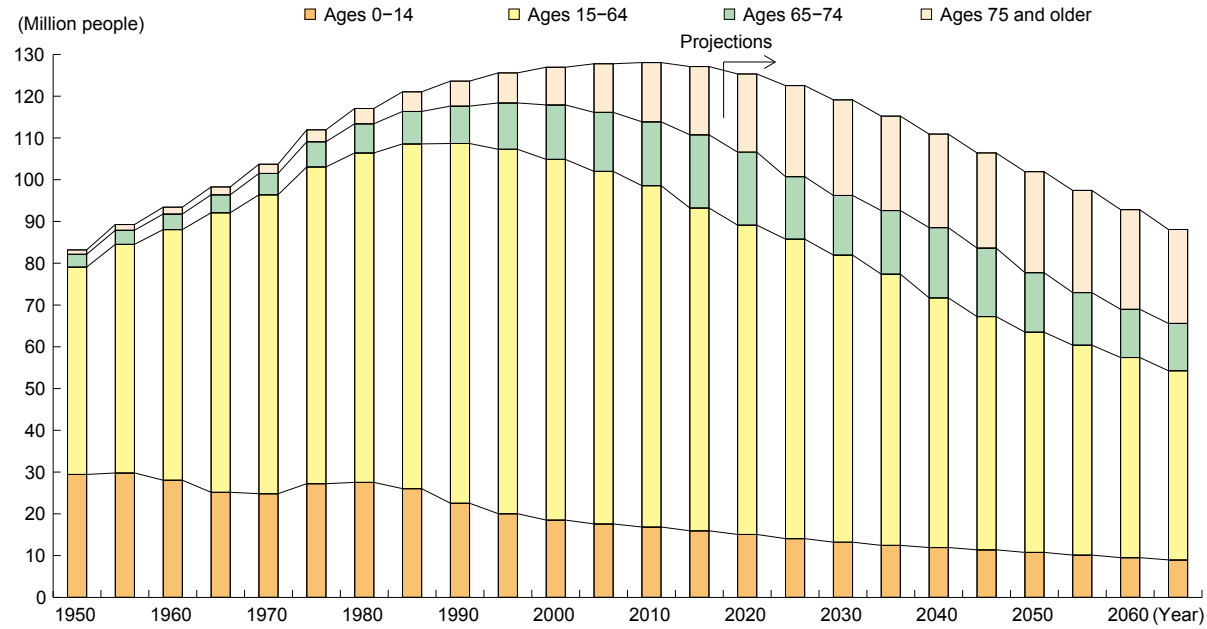
Factors behind the rise in the sense of a labor shortage at SMEs include a cyclical factor (economic expansion) and a structural factor (Japan's population dynamics). Below, we look at Japan's population dynamics, changes in the employee structure, and more.

1. Working age population and labor force population

(1) Changes in working age population

Japan's working age population (ages 15–64) peaked at about 87 million in 1995, after which it started declining. By 2015, it had declined to about 77 million (a decline of about 10 million). This trend is projected to continue into the future. It is estimated that the working age population will fall to about 48 million in 2060, or only about 60% that of the 2015 level (Fig. 2-1-9).

Fig. 2-1-9 Population projections by age group



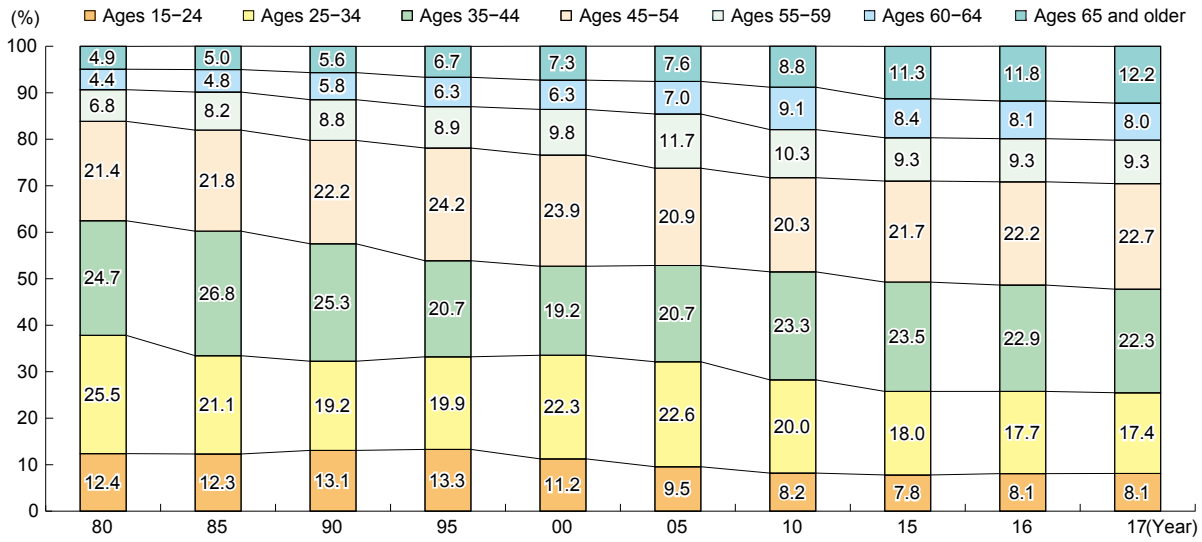
Sources: MIC, *Population Census*; National Institute of Population and Social Security Research, *Population Projections for Japan* (2017 projections).
Notes: 1. Future population projections after 2016 are based on medium fertility (medium mortality) estimates.
2. Populations up to 2015 are based on MIC, *Population Census* (people of uncertain age are proportionally distributed).

(2) Changes in labor force population

Fig. 2-1-10 shows trends in the age structure of the labor force population[4]. Comparing the recent structure with that of 1980, the percentage of personnel age 44 or younger is declining on the whole. On the other hand, the percentage of personnel age 55 or older is rising, with a particularly large increase among generations age 60 or older.

4) "Labor force population" is found by adding "employed persons" and "completely unemployed persons" age 15 or older.

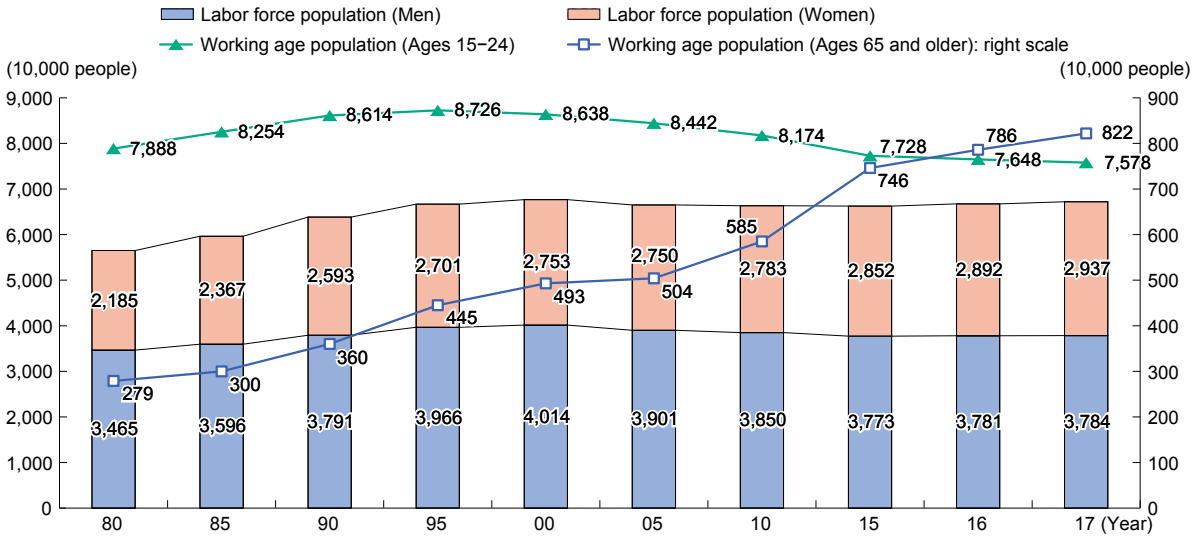
Fig. 2-1-10 Trends in the age structure of the labor force population



Source: MIC, *Labor Force Survey (Historical Data/Basic Tabulation)*.

Next, we look at time series for Japan's labor force population and working age population. A look at the labor force population shows that it declined by about 420,000 people between 1995 and 2015, not as great as the decline in working age population. As the working age population declines, the rising labor force participation rate of women and personnel age 65 or older as a percentage of the working age population softens the impact of the decline in the working age population (Fig. 2-1-11).

Fig. 2-1-11 Trends in labor force population and working age population



Sources: MIC, *Labor Force Survey (Historical Data/Basic Tabulation)*; MIC, *Population Census*; National Institute of Population and Social Security Research, *Population Projections for Japan* (2017 projections).

Notes: 1. Future population projections after 2016 are based on medium fertility (medium mortality) estimates.
2. Populations up to 2015 are based on MIC, *Population Census* (people of uncertain age are proportionally distributed).
3. The labor force population (men) and labor force population (women) are figures for persons age 15 or older, while working age population is a figure for persons age 15–64.

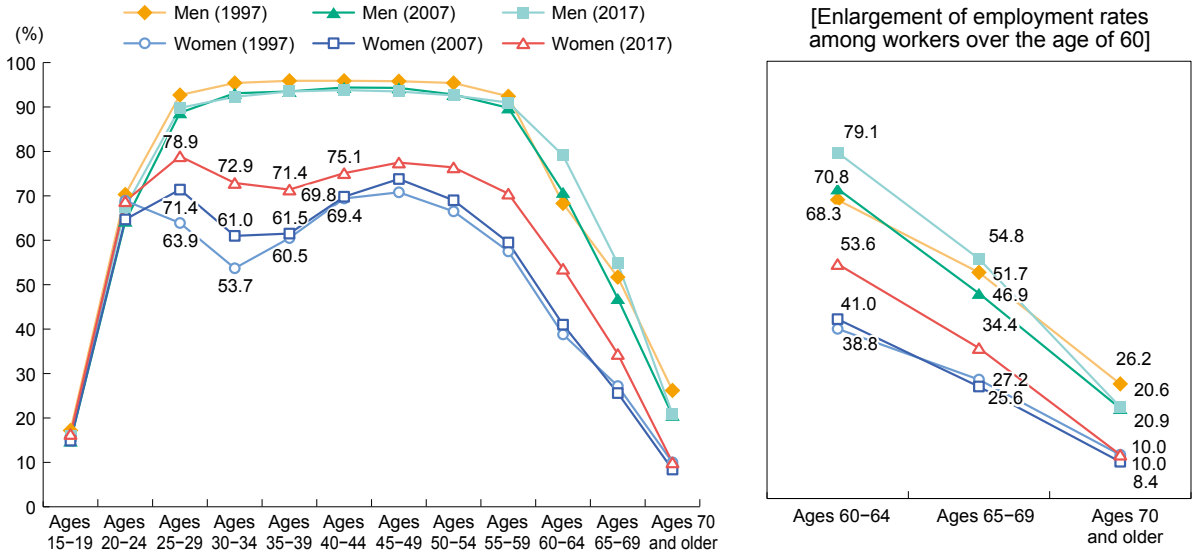
2. State of labor force participation by women and seniors

Below is a detailed look at how labor force participation by women and seniors is softening the impact of Japan's working age population decline, as well as a look at the background when women and seniors wishing to find jobs are not getting them.

(1) Changes in employment rate

Fig. 2-1-12 shows trends in the employment rate by age and gender. One characteristic of the employment rate for women is that it is about the same as that for men up to their early 20s, but the employment rate stops growing in their later 20s and starts to decline in their early 30s. Comparing 1997 and 2017, the employment rate overall for women, including their early 30s, has risen, but there is a gap compared to the employment rate for men. On the other hand, the employment rate for men rises in their early 60s. This indicates increasing labor force participation by seniors.

Fig. 2-1-12 Changes in employment rate by age and gender (1997−2017)



Source: MIC, *Labor Force Survey (Historical Data/Basic Tabulation)*.

(2) Trends in number of women employees

Following is a look at women's employment status, employment inclinations, etc. First, a look at the number of women employees by employment pattern shows that the number of women employees has continued to rise in the last 10 years, with an increase of about 2.6 million altogether (Fig. 2-1-13). Breaking down by employment pattern shows that there has been a particularly large increase in non-regular employees, while since 2015 the number of regular employees has also risen greatly.

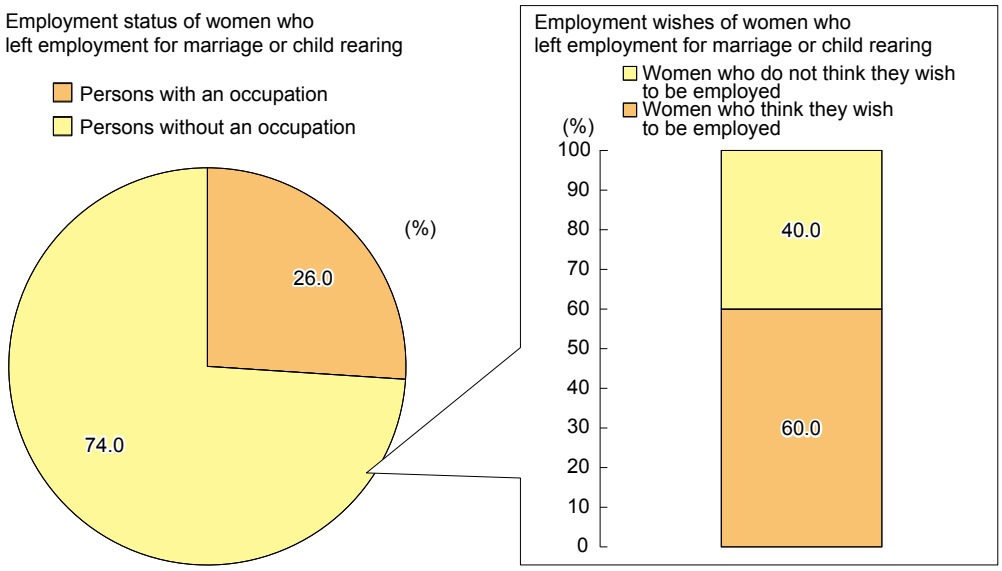
Fig. 2-1-13 Trends in number of women employees, by employment pattern

Source: MIC, *Labor Force Survey (Historical Data/Basic Tabulation)*.

(3) Women's employment status during the child rearing years

Here, we look at what percentage of women who left employment for marriage or childbirth reasons subsequently became employed again, and what percentage of those that did not become employed again wish to become employed. Fig. 2-1-14 shows that persons who returned to work after leaving employment and are currently employed (persons with an occupation) make up just 26.0% of the total, while 60.0% of persons without an occupation would like to return to work. Persons who left employment for marriage or child rearing and would currently like to be employed likely have a certain capacity to perform work because they already have social experience. It is inferred that putting such personnel back to use could be a key to securing personnel for enterprises facing labor shortages.

Fig. 2-1-14 Employment status of women who left employment for marriage or child rearing

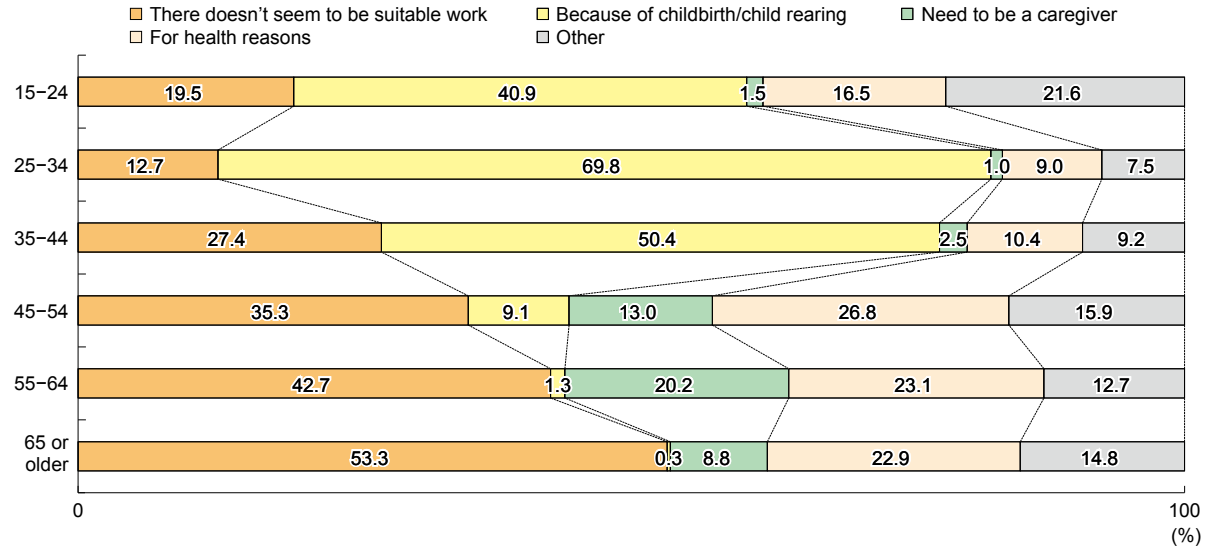


Source: MIC, *2012 Basic Survey on Employment Structure*
Notes: 1. Figure aggregates women ages 25–34 who left employment in October 2007 or later and said that the reason was "Because of marriage" or "Because of childbirth/child rearing."
2. "Women who do not think they wish to be employed" refers to "Persons without an occupation" minus those who are "Persons wishing to be employed."

(4) Status of non-employed women

Below, we look at the "non-labor force population"[5] (persons not seeking jobs), and specifically those who wish to work but are not looking for work, to find the reason why. Fig. 2-1-15 (1) looks at women in this category by age group. It shows that "Because of childbirth/child rearing" was the answer from the majority in the age groups "15–24," "25–34," and "35–44." Additionally, Fig. 2-1-15 (2) breaks down those that answered, "There doesn't seem to be suitable work." A high percentage of women in the age groups "25–34," "35–44," and "45–54" elaborated that "There doesn't seem to be work that I'd want in terms of working hours, wages, etc." From this, it is inferred that there are particularly many women who want to work but are limited by childbirth/child rearing and thus not seeking jobs, and that there is a large demand for enterprises where such women could work.

Fig. 2-1-15 (1) Reason why persons would like to do paying work but are not currently seeking work (women)

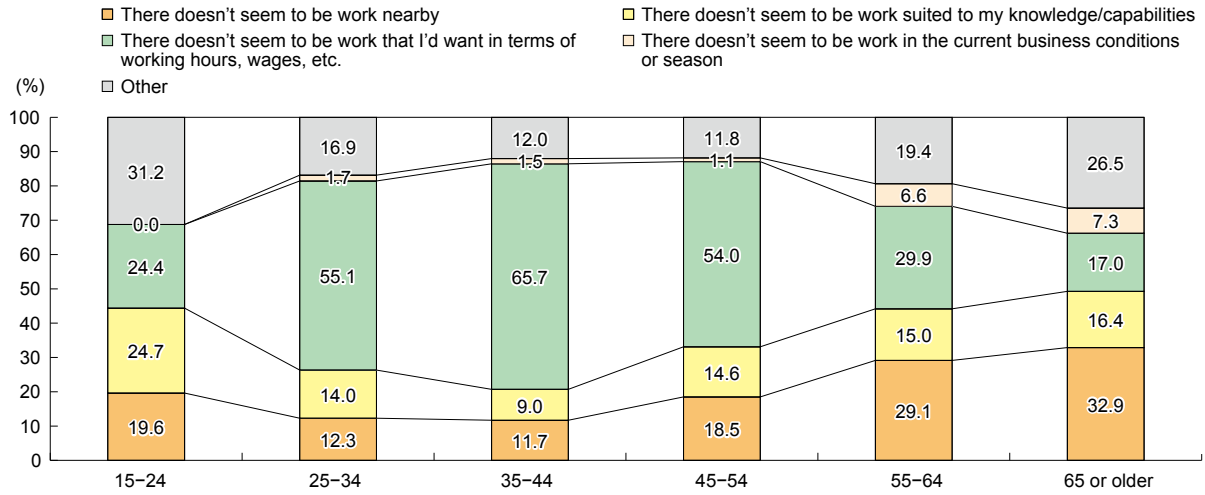


Source: Recompiled from MIC, *2016 Labor Force Survey.*

Notes:
1. Figure aggregates responses of persons who were not working during the period covered by the survey, answering, "School, housework, etc." and who in addition responded that they would like to do paying work.
2. In the 15–24 age group, those currently in school are not counted.
3. Calculated by averaging responses over one year.

5) Refers to people age 15 or older other than "employed persons" and "completely unemployed persons."

Fig. 2-1-15 (2) Reason why persons would like to do paying work but are not currently seeking work (women): breakdown of those answering, “There doesn’t seem to be suitable work”



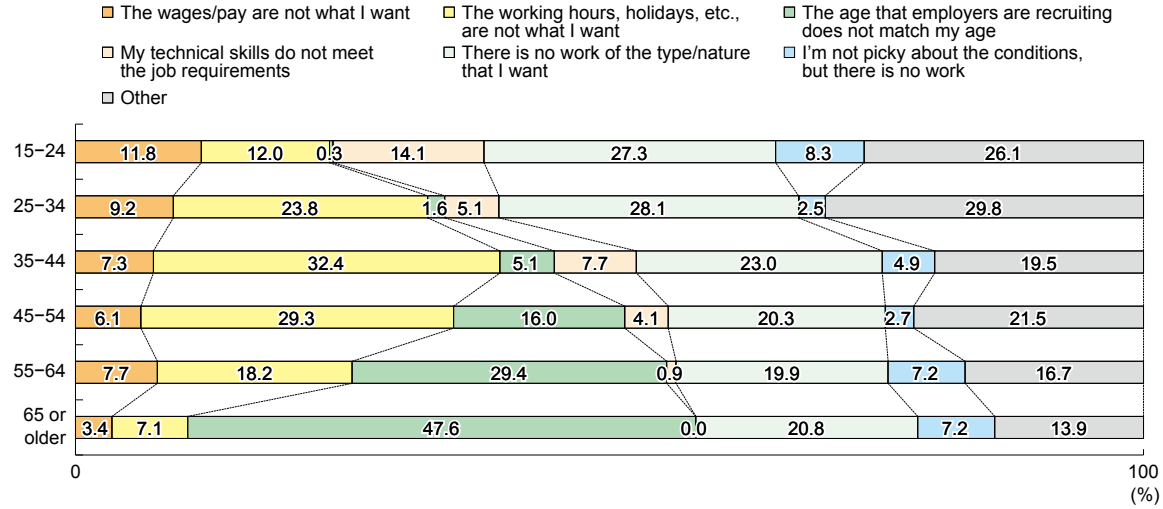
Source: Recompiled from MIC, *2016 Labor Force Survey*.
Notes:
1. Figure aggregates responses of persons who were not working during the period covered by the survey, answering, “School, housework, etc.” and who in addition responded that they would like to do paying work.
2. In the 15–24 age group, those currently in school are not counted.
3. Calculated by averaging responses over one year.
4. Re-aggregated so that only the above choices that are a breakdown of “There doesn’t seem to be suitable work” will add up to 100% of responses.

(5) Status of completely unemployed women

Fig. 2-1-16 looks at the reasons why completely unemployed women[6] are not working. It shows that a high percentage of respondents answered, “There is no work of the type/nature that I wish” or “The working hours, holidays, etc., are not what I want.” On the other hand, in all age groups except “15–24,” less than 10% answered, “The wages/pay are not what I want.” The figure also shows that there were particularly high percentages responding, “The working hours, holidays, etc., are not what I want” in the age groups “25–34,” “35–44,” and “45–54.” Therefore, it appears that the conditions these women are looking for from employers are more concerned with work of the type/nature that women want and working hours and holidays, rather than wages. It is inferred that there are many women in particular who would find it difficult to work full time because of child rearing, etc., and therefore they wish to work shortened work hours, etc.

6) Here, “completely unemployed persons” means persons who meet the three following conditions, as based on the definition in the Ministry of Internal Affairs and Communications’ *Labor Force Survey*.
(1) The person has no work and did not do even a little work in the survey period (not an employed person).
(2) The person would be able to work soon if there were work.
(3) The person was searching for work or preparing to start a business during the survey period (includes cases where the person has applied for a job and is waiting for the results).

Fig. 2-1-16 Reasons why completely unemployed persons are not working (women)

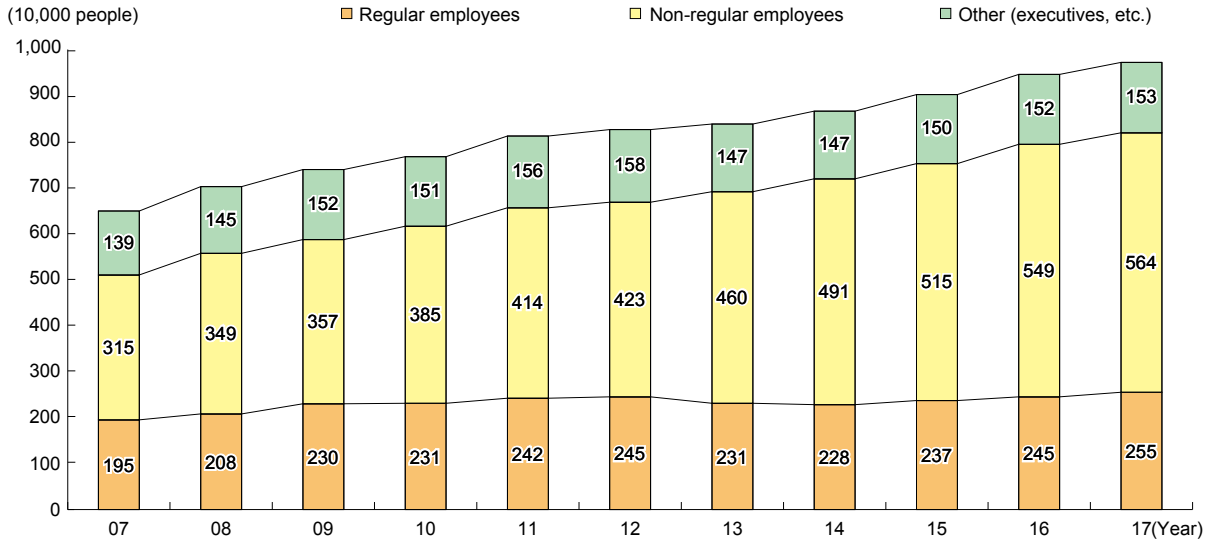


Source: Recompiled from MIC, *2016 Labor Force Survey.*
Notes: 1. Figure aggregates responses of persons who were not working but were searching for work during the survey period.
2. Aggregates average responses over one year.

(6) Trends in number of senior employees

Next is a look at seniors' employment status, employment inclinations, etc. A look at the number of employees age 60 or older by employment pattern shows that the number of employees age 60 or older has risen in the last 10 years, with an increase of about 3.3 million (Fig. 2-1-17). This suggests increasing labor force participation by seniors.

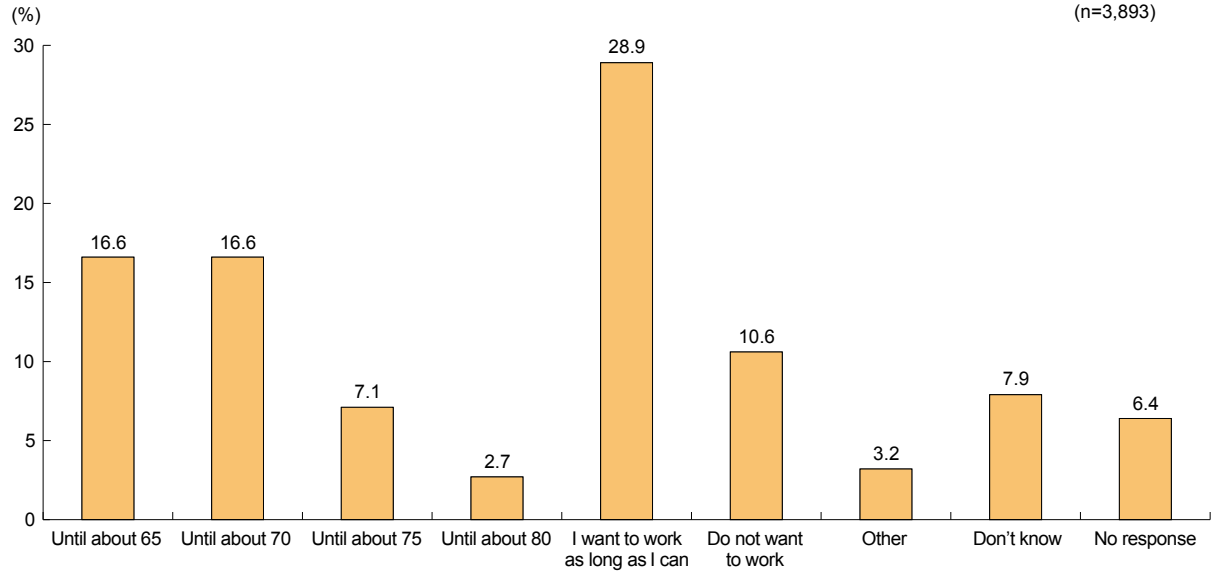
Fig. 2-1-17 Trends in number of 60 or older employees, by employment pattern



Source: MIC, *Labor Force Survey (Historical Data/Basic Tabulation)*.

Fig. 2-1-18 shows the age up to which seniors would like to work. Breaking down the results, 28.9% said, "I want to work as long as I can," while the answers "Until about 65" and "Until about 70" each got 16.6%. This indicates that there is a reasonably high percentage of seniors with a strong intention to participate in the labor force, and thus there is increasing labor force participation by seniors. Therefore, it is inferred that enterprises are needed that can accommodate seniors.

Fig. 2-1-18 Age up to which men and women age 60 or older want to work



Source: Cabinet Office, *FY2014 Survey on Opinions of the Elderly toward Daily Life*.

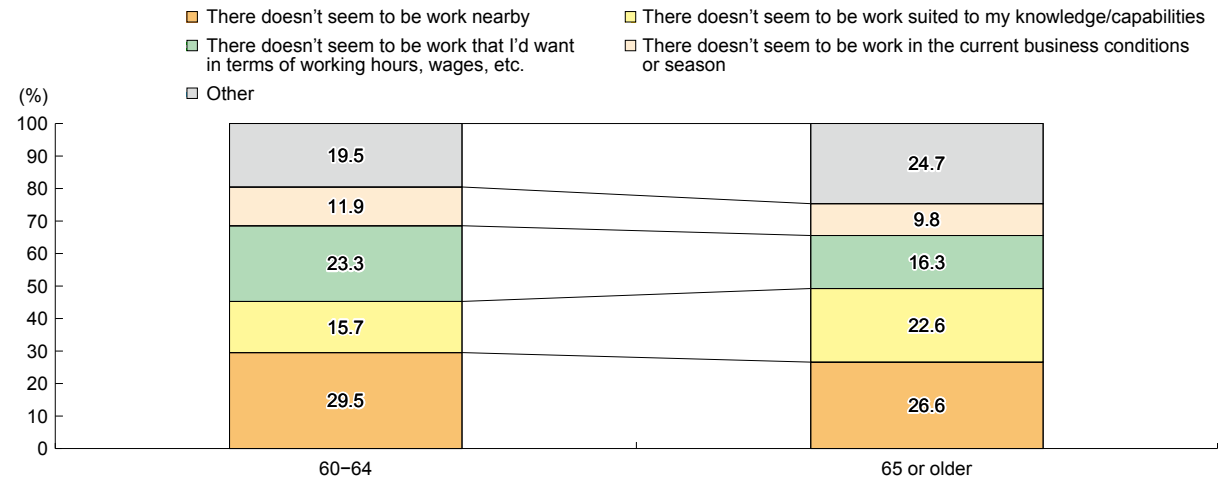
(7) Status of non-employed seniors

Fig. 2-1-19 (1) and Fig. 2-1-19 (2) look at seniors in the "non-labor force population" that wish to work but are not looking for work and consider their reasons for not looking. Breaking the results down, the most common response among both "60–64" and "65 or older" was "There doesn't seem to be suitable work." Of these, about 20% elaborated that "There doesn't seem to be work that I'd want in terms of working hours, wages, etc." It appears that these people would be motivated to start looking for work if there were enterprises offering the wages and working hours they want. In addition, many in the "60–64" age group chose "Need to be a caregiver" as their reason, suggesting that there are limitations created by caring for a family member, etc.

Fig. 2-1-19 (1) Reason why persons would like to do paying work but are not currently seeking work (seniors)

Source: Recompiled from MIC, *2016 Labor Force Survey*.
Notes: 1. Figure aggregates responses of persons who were not working during the period covered by the survey, answering, "School, housework, etc." and who in addition responded that they would like to do paying work.
2. Calculated by averaging responses over one year.

Fig. 2-1-19 (2) Reason why persons would like to do paying work but are not currently seeking work (seniors): breakdown of those answering, "There doesn't seem to be suitable work"

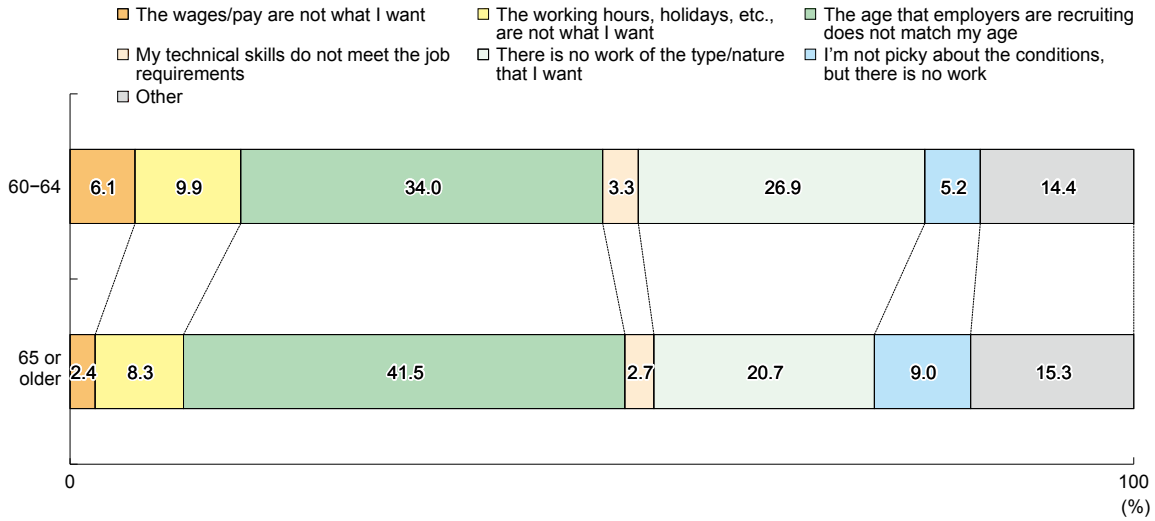


Source: Recompiled from MIC, *2016 Labor Force Survey*.
Notes: 1. Figure aggregates responses of persons who were not working during the period covered by the survey, answering, "School, housework, etc." and who in addition responded that they would like to do paying work.
2. Calculated by averaging responses over one year.
3. Re-aggregated so that only the above choices that are a breakdown of "There doesn't seem to be suitable work" will add up to 100% of responses.

(8) Status of completely unemployed seniors

Next, Fig. 2-1-20 looks at the reasons completely unemployed seniors have for not working. The most common response was "The age that employers are recruiting does not match my age." The percentage giving that answer was high in the "60–64" age group (34.0%) and "65 or older" age group (41.5%). Therefore, it is suggested enterprises could accommodate seniors if they would expand the age range they are recruiting.

Fig. 2-1-20 Reasons why completely unemployed persons are not working (seniors)



Source: Recompiled from MIC, *2016 Labor Force Survey*.
Notes: 1. Figure aggregates responses of persons who were not working but were searching for work during the survey period.
2. Calculated by averaging responses over one year.

Section 3 Response of SMEs facing labor shortages

1. Personnel lacking at SMEs

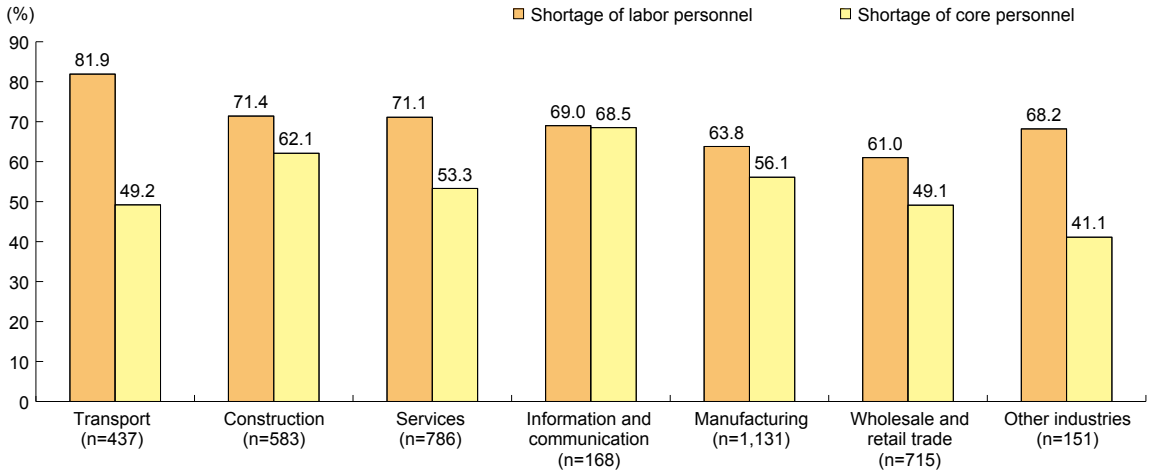
It seems likely that the way SMEs respond to their labor shortages varies depending on what kind of personnel they are lacking. This section will classify the types of personnel that SMEs are looking for into two groups: "core personnel," who have a high degree of expertise and technical skill and are the backbone of business activities, and "labor personnel," who work under the command of core personnel, providing the labor that is indispensable to business operations. The section will then analyze how SMEs are responding to shortages of each of these groups of personnel (Fig. 2-1-21).

Fig. 2-1-21 Definitions of personnel in this section

[Categories of personnel]		
	Core personnel	• Personnel who work at the core of each department and work in high-level and difficult business processes. • Personnel in charge of organizational management and operations. • Personnel who command and manage multiple persons. • Personnel with a high degree of expertise, technical skill, and proficiency.
	Labor personnel	• Personnel who work in relatively fixed business processes in each department. • Personnel that are not in charge of organizational management and operations. • Personnel who work under the command and management of core personnel. • Personnel who assist core personnel. • Additionally, personnel who do not have a high degree of expertise, technical skill, and proficiency.

Fig. 2-1-22 shows the sense of a shortage of labor personnel and core personnel, by industry sector. It shows that there is a strong sense of a shortage in labor personnel in each industry sector, led by transport (81.9%) and construction (71.4%). On the other hand, about half or more of enterprises in each industry sector except "Other" sensed there was also a shortage of core personnel.

Fig. 2-1-22 Personnel that are lacking, by industry sector



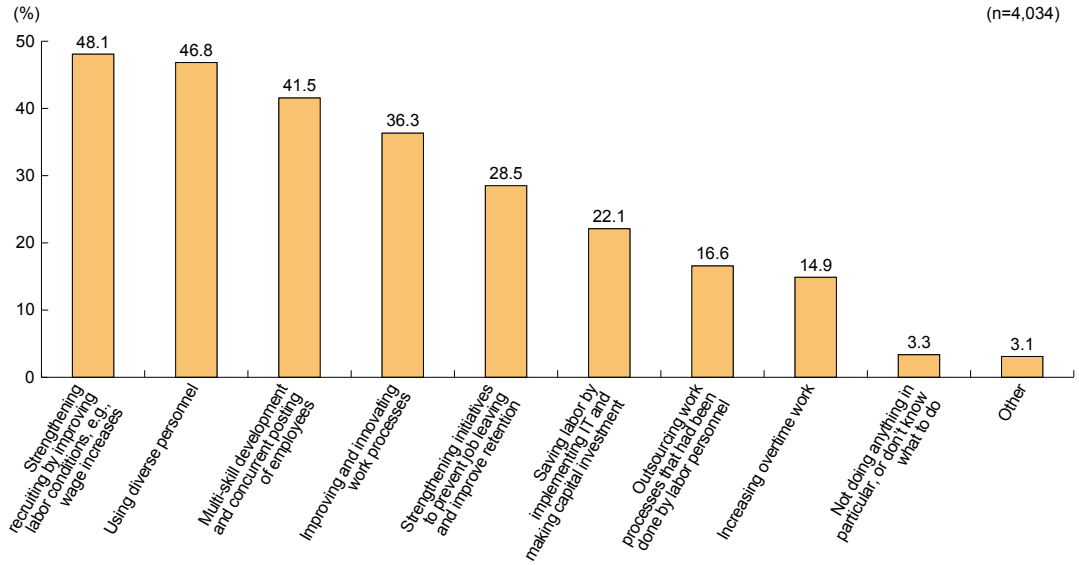
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes: 1. The figure aggregates responses of those who felt there is a "Serious shortage" or "Some shortage" when asked about their sense of a labor (personnel) surplus or shortage.
2. The responses "Shortage of labor personnel" and "Shortage of both labor personnel and core personnel" were added together to find "Shortage of labor personnel," while the responses "Shortage of core personnel" and "Shortage of both labor personnel and core personnel" were added together to find "Shortage of core personnel."

2. Response to shortage of labor personnel

Analysis shows that SMEs have a relatively stronger sense of a shortage of labor personnel than they do of core personnel. Here, we confirm how enterprises are responding to the shortage of labor personnel. A look at Fig. 2-1-23 shows the most frequent response to be "Strengthening recruiting by improving labor conditions, e.g., wage increases," followed by "Using diverse personnel," "Practicing employee multi-skill development and concurrent posting," and "Improving and innovating work processes."

Fig. 2-1-23 SMEs' responses to shortage of labor personnel



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

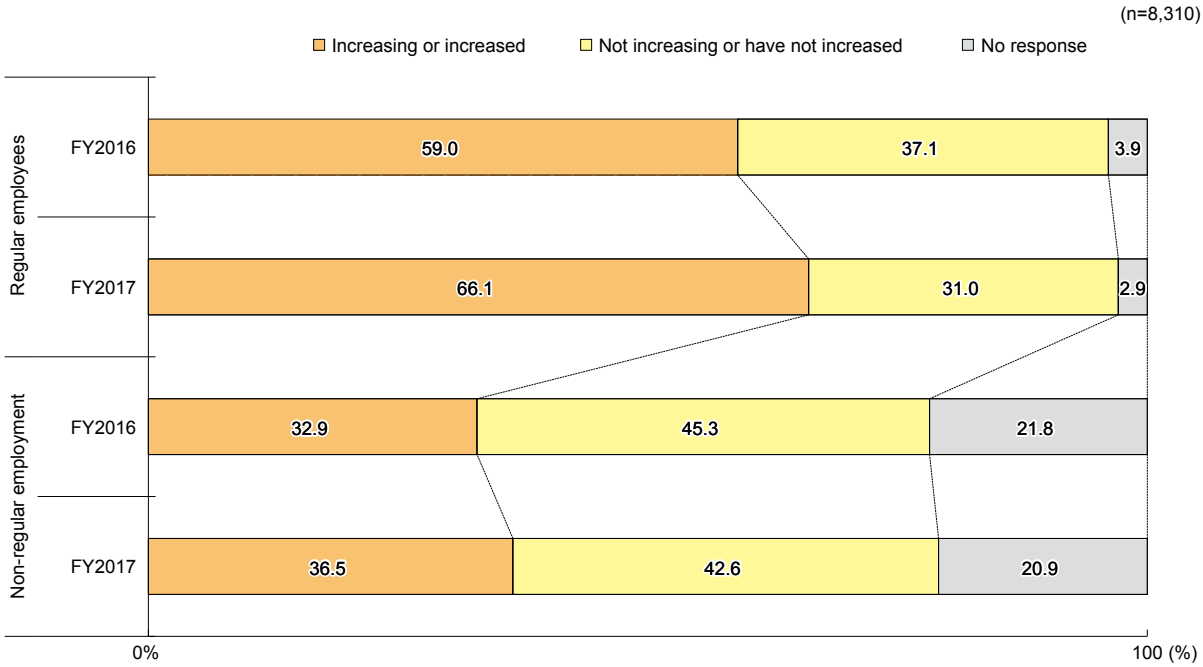
Note: Total does not always equal 100% as multiple responses were possible.

3. Status of wage increases at SMEs

Next, we consider "Strengthening recruiting by improving labor conditions, e.g., wage increases," the top answer given by SMEs in Fig. 2-1-23 above as their way of responding to the shortage of labor personnel. We then focus on and discuss the situation for women and seniors, who are considered important to those who answered, "Using diverse personnel." The answers "Practicing employee multi-skill development and concurrent posting," "Improving and innovating work processes," "Saving labor by implementing IT and making capital investment," and "Outsourcing work processes that had been done by labor personnel" will be analyzed in Chapter 2 and thereafter.

First is an overview of the status of wage increases at SMEs. According to the Ministry of Economy, Trade and Industry's *FY2017 Survey of Employment Conditions at SMEs*, the percentage of SMEs increasing wages for "Regular employees" was 66.1% and for "Non-regular employment" was 36.5%, higher than the rate in the previous fiscal year. From this we infer that wage increases are advancing at SMEs (Fig. 2-1-24).

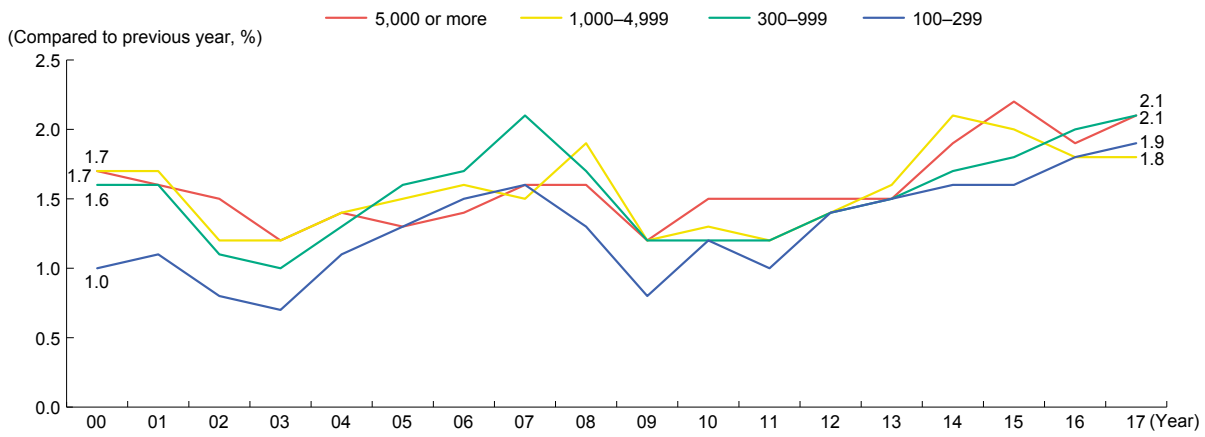
Fig. 2-1-24 Status of wage increases at SMEs



Source: METI, *FY2017 Survey of Employment Conditions at SMEs*.

Next, we confirm the trends in rate of wage revision per worker by scale of business, using the Ministry of Health, Labour and Welfare's *Survey on Wage Increase*. The data shows that enterprises with 100–299 employees had been increasing wages at a lower rate than enterprises of other scales, but recently the gap between enterprises of different sizes is shrinking, which can be read to mean that small-scale enterprises are trying to increase wages (Fig. 2-1-25).

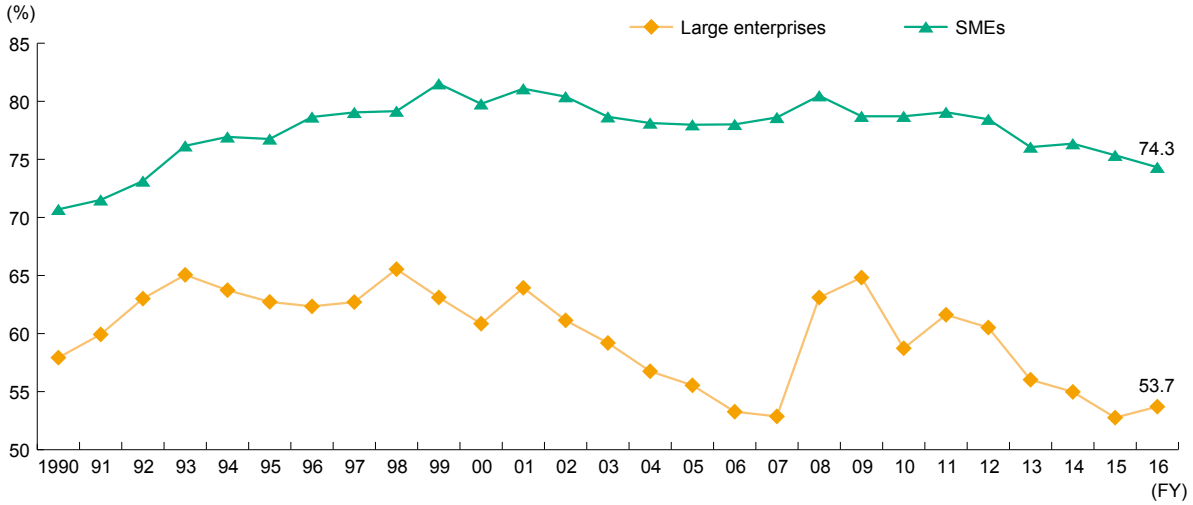
Fig. 2-1-25 Trends in wage increases (rate of wage revision per worker)



Source: MHLW, *Survey on Wage Increase*.
Notes:
1. Figure aggregates results for enterprises that have revised their wages, enterprises that plan to revise their wages and have already determined the amount, and enterprises that are not revising their wages.
2. Wage revisions include revisions of regular raises, increases in basic pay, and allowances for all or some regular workers, and also include reductions of wages, such as decreases in basic pay, cuts in wages, etc.
3. "Regular workers" in this survey refers to workers who are employed for an indefinite term.
4. The rate of wage revision per worker is based on a weighted average based on the number of regular workers.

A look at trends in the labor share shows that for about the last 25 years, the labor share has been 50%–65% at large enterprises and about 70%–80% at SMEs (Fig. 2-1-26). The ratio of personnel costs to added value is higher at SMEs than at large enterprises. It is inferred that SMEs' business owners are finding ways to pay employees from limited profits at a higher rate than large enterprises.

Fig. 2-1-26 Trends in labor share



Source: MOF, *Financial Statements Statistics of Corporations by Industry, Annually.*
Notes:
1. Labor share = personnel costs (officers' salaries + officers' bonuses + employees' salaries + employees' bonuses + benefits) / added value (personnel costs + interest, etc. + rents on movables and real estate + taxes and public charges + net operating profit)
2. Here, "large enterprises" are enterprises with capital of at least ¥1 billion and "SMEs" are enterprises with capital of at least ¥10 million and less than ¥100 million.

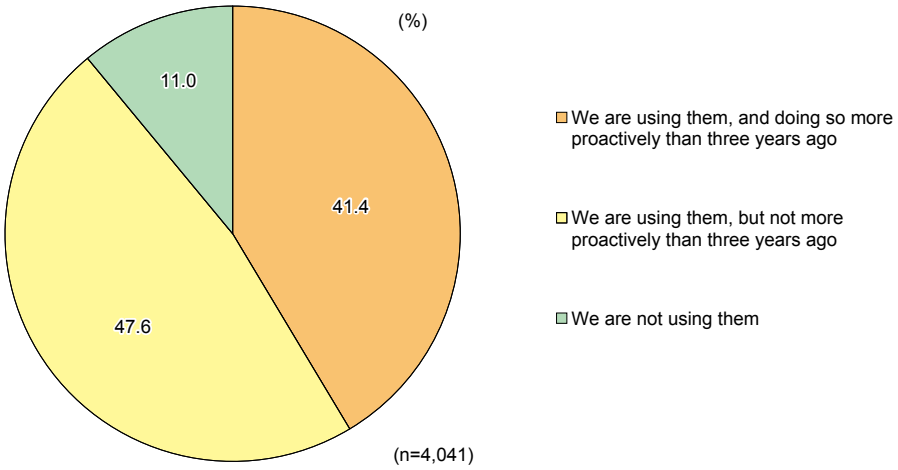
4. Use of women and seniors as a response to shortage of labor personnel

Section 2 uses statistical data to indicate that as the working age population changes, women and seniors are increasingly participating in the labor force. Here, we look at the extent to which SMEs are using women and seniors under the present condition of shortage of labor personnel, based on a questionnaire.

(1) Use of women and seniors

A look at Fig. 2-1-27 shows that in total, 89.0% of enterprises use women and seniors, and that 41.4% of the total have become more active in the use of women and seniors compared to three years earlier. With labor shortages growing more serious, the use of women and senior workers appears to be on the rise.

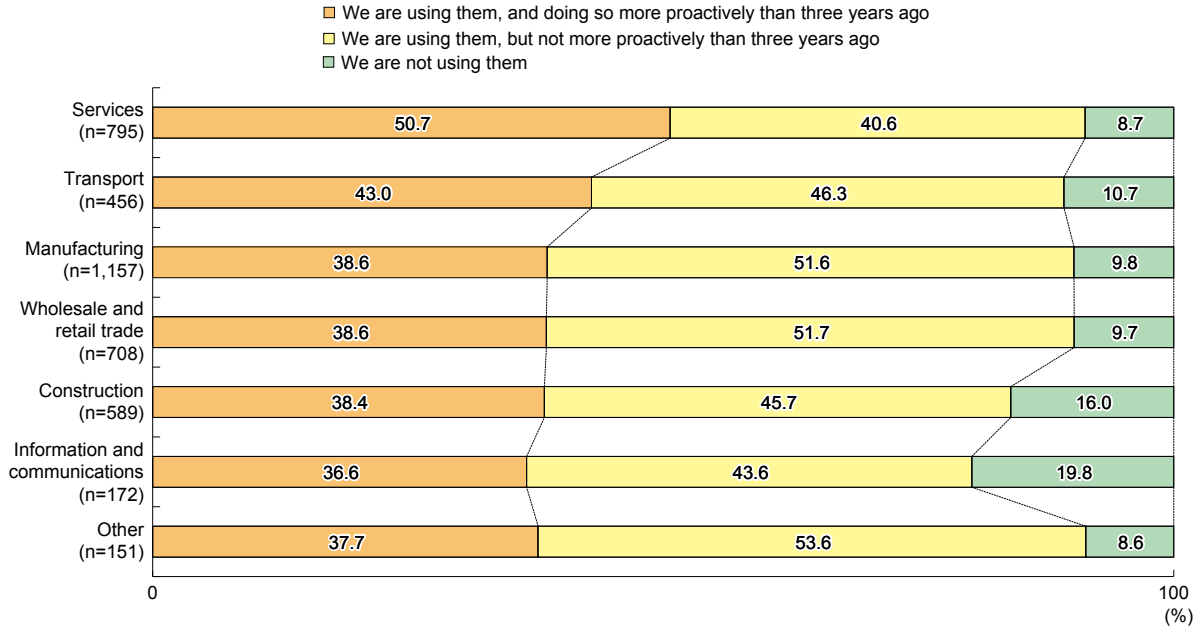
Fig. 2-1-27 Use of women and seniors at SMEs



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Fig. 2-1-28 looks at the use of women and seniors, by industry sector. It shows that in all industry sectors, enterprises that use women and seniors are in the majority. The figure shows that among industries, a high percentage of enterprises in services and transport are more actively using women and seniors compared to three years ago.

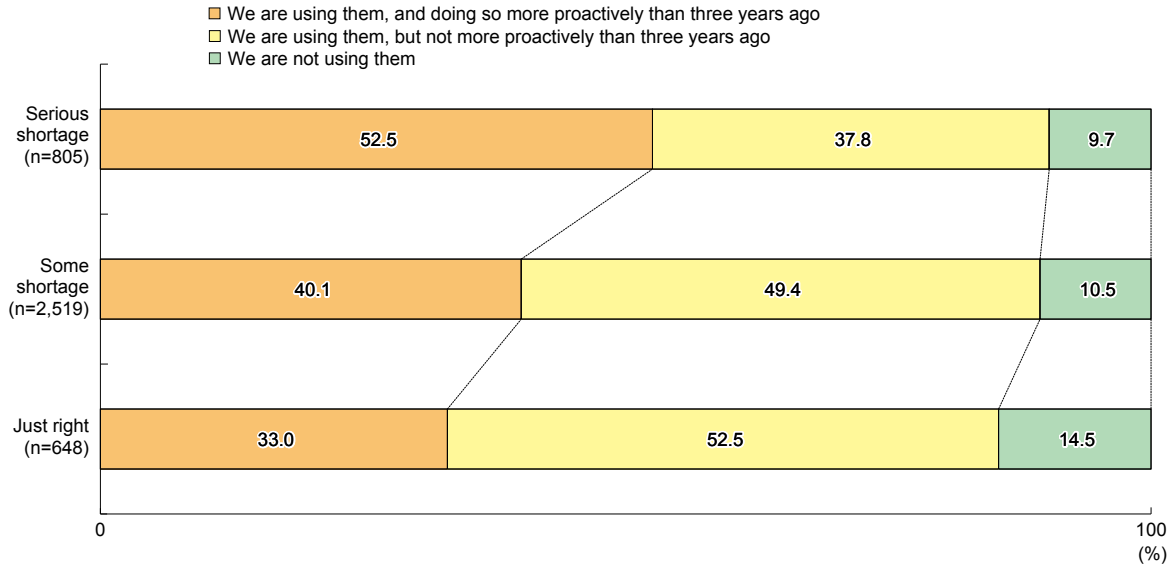
Fig. 2-1-28 Use of women and seniors to respond to shortage of labor personnel, by industry sector



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Fig. 2-1-29 looks at the use of women and seniors, by the sense of a labor shortage at SMEs. Among enterprises that answered, "Serious shortage" of labor, more than half (52.5%) answered that "We are using them [women and seniors], and doing so more proactively than three years ago." The data shows that the stronger the sense of a labor shortage at SMEs, the more they are using women and seniors.

Fig. 2-1-29 Use of women and seniors, by the sense of a labor shortage

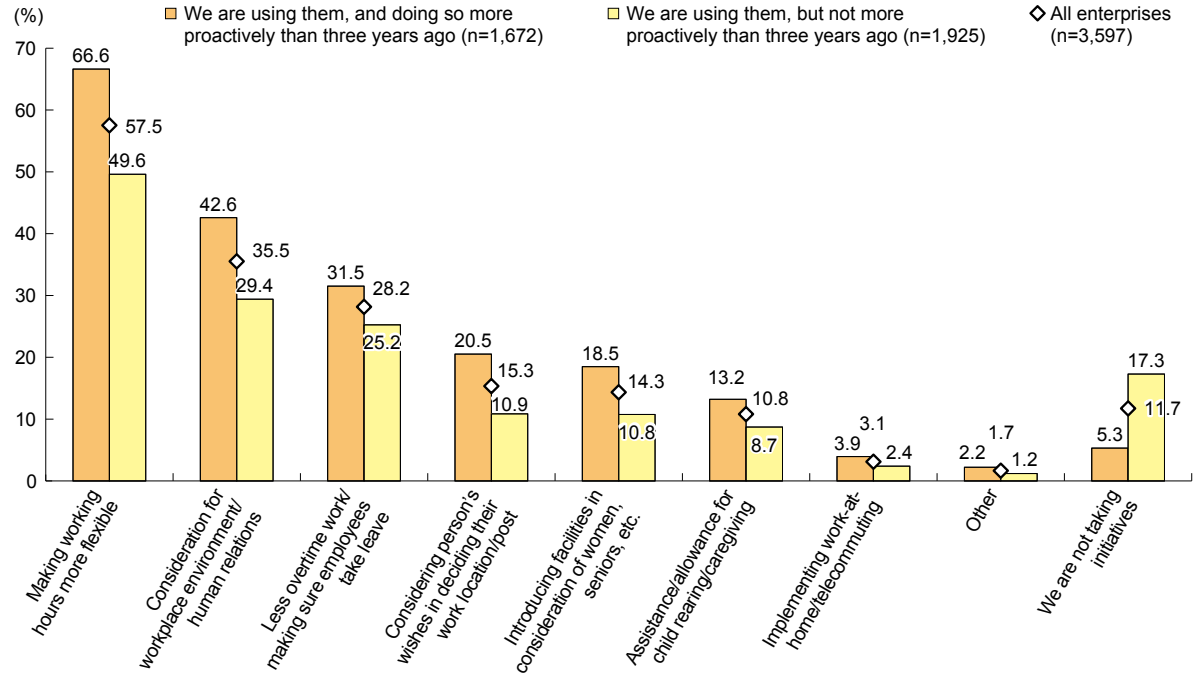


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: The item "Surplus" concerning enterprises' sense of a labor shortage is not shown.

(2) Initiatives to establish a workplace environment

Next, Fig. 2-1-30 looks at initiatives to establish a workplace environment to use women and seniors. It shows the highest rate of response went to "Flexible working hours," followed by "Consideration for workplace environment/human relations" and "Less overtime work/making sure employees take leave." Moreover, enterprises that are more proactively using women and seniors than three years before were taking each of the initiatives at high percentages. It is inferred that to use women and seniors, it is important to lower the burden on employees and create workplaces where it is easier to work.

Fig. 2-1-30 Nature of initiatives to establish a workplace environment, by state of use of women and seniors

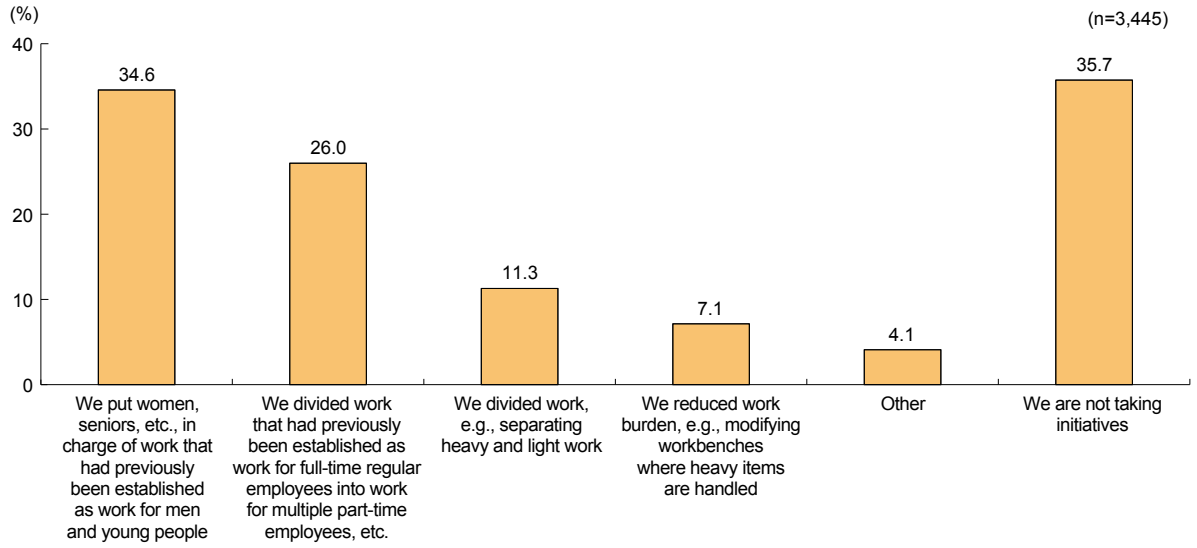


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

(3) Initiatives to expand scope of business processes performed by women and seniors

Fig. 2-1-31 shows the state of initiatives to expand the scope of business processes performed by women and seniors. A breakdown shows the top answers to be "We put women, seniors, etc., in charge of work that had previously been established as work for men and young people" and "We divided work that had previously been established as work for full-time regular employees into work for multiple part-time employees, etc." This seems to mean that where, for example, the enterprise cannot get men regular employees, the enterprise in some cases is changing its thinking and putting women and seniors in charge of business processes that men regular employees would have done in the past, or they are responding to the shortage of men regular employees by dividing up business processes and allocating them to multiple part-time employees, etc. It is inferred that a certain number of enterprises are dispelling the stereotypes and expanding the scope of business processes performed by women and seniors.

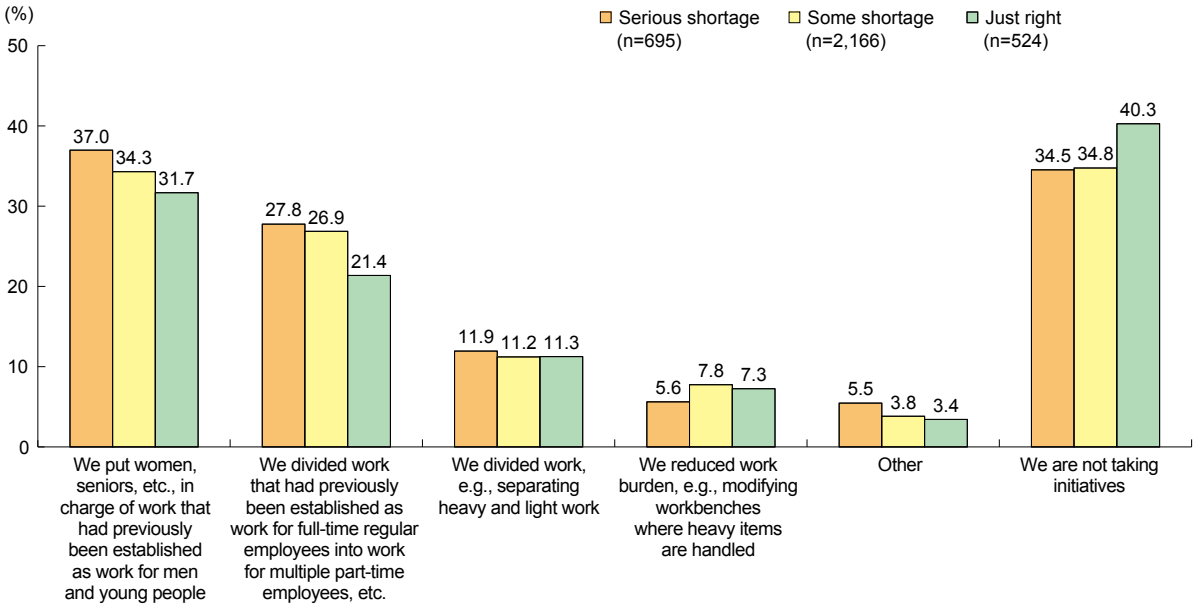
Fig. 2-1-31 State of initiatives to expand the scope of business processes performed by women and seniors



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Fig. 2-1-32 looks at the state of initiatives to expand the scope of business processes performed by women and seniors, by the sense of a labor shortage. It shows that enterprises that felt they had a "Serious shortage" or "Some shortage" of labor were more likely to take initiatives to expand the scope of business processes performed by women and seniors than was the case at those that felt their supply of labor was "Just right."

Fig. 2-1-32 State of initiatives to expand the scope of business processes performed by women and seniors, by the sense of a labor shortage

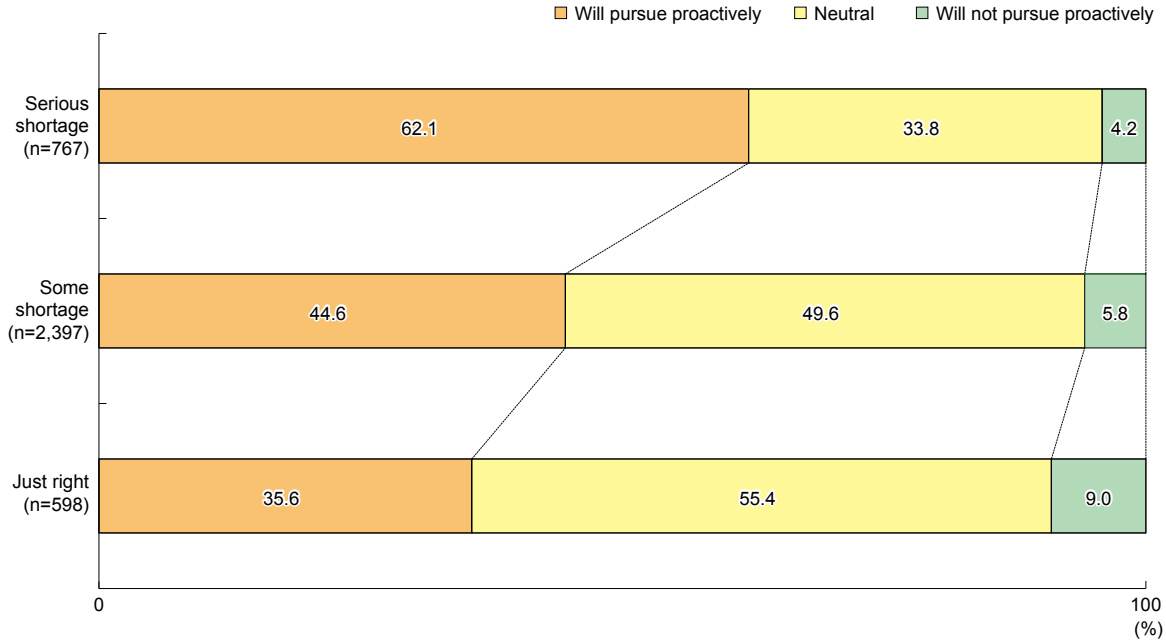


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. The item "Surplus" concerning enterprises' sense of a labor shortage is not shown.

(4) Policies on the use of women and seniors going forward

Fig. 2-1-33 looks at policies on the use of women and seniors going forward, by the sense of a labor shortage at SMEs. It shows that among enterprises that felt they had a "Serious shortage" of labor, a high percentage said they will "Pursue proactively" the use of women and seniors going forward. It is inferred that there is a growing demand for women and seniors in the labor force at a time of labor shortage.

Fig. 2-1-33 Policy on use of women and seniors going forward, by the sense of a labor shortage



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes: 1. Figure aggregates responses concerning policies on the use of women and seniors going forward, exclusive of those that answered, "Don't know."
2. The item "Surplus" concerning enterprises' sense of a labor shortage is not shown.

Case 2-1-1 COCO-LO Co., Ltd.

A company succeeding in employing and retaining female staff through flexible working styles and free daycare centers

COCO-LO Co., Ltd. (employees: 86; capital: ¥3 million), located in Kiryu City, Gunma Prefecture, was founded in 2005. Yoko Utagawa, a licensed occupational therapist, was motivated by caring for her own grandmother to found the company together with several of the company's current employees. The company has a visiting care office, adult day care office, in-home care support office, and physical therapy center.

The company's defining characteristic is how it recruits staff by focusing on building comfortable working environments for women. This focus came about when, as the company was working to expand its business, two employees who had been working as regular employees since the company's founding became pregnant at the same time. When these employees expressed a desire to return to work after giving birth, the company set about creating programs based on employee feedback in an effort to be a company to which these two and other employees could return to work after childbirth and continue working as they raised their children.

It first implemented a range of support programs to enable working styles accommodating of diverse lifestyles. One of these was its "junior employee program (shortened working hours for regular employees program)." This program allows employees to set a single day's work hours to between 4.5 hours and less than 7.5 hours according to their individual situations regarding child care or elderly care. They receive the same employment insurance, social insurance, hourly wage, and other benefits as regular employees. The second program was its "work re-acclimation program." Under this program, employees can work as little as one hour a day for the first month after returning to work following childcare leave, allowing employees to achieve a balance between childcare and professional duties. In addition, the company's childcare leave program enables employees to exceed the legal maximum and take time off to care for a child of up to 3 years of age. These efforts have succeeded: 100% of employees have returned to the company after taking childcare leave.

The company has also set up "free daycare centers" for employees at its offices that are staffed by full-time nursery teachers. Employees can put their children in until the March after their third birthday (or even later by request) and breast-feed or check on them even during working hours. The free daycare center is generally made use of by employees switching from visiting care to adult day care work, and is a measure to allow parents and children to be in the same space.

These efforts have given the company a good reputation in the area as a comfortable place for women to work. Jobseekers are constantly inquiring about employment at the company, and when the company advertises a position, qualified personnel respond in droves. Recently, 20 people applied for four caregiver openings while 42 people applied for one position in the corporate planning office.

Says the company's president, Yoko Utagawa, "By establishing satisfying work environments, our company has recruited women along with a diversity of other personnel. This has led to an organizational culture that makes the most of each employee's talents, while improving our services."

Yoko Utagawa, President

Female employees on the job

Case 2-1-2 Kato Mfg. Co., Ltd.

A company that has resolved a shortage of workers and provided increased professional opportunities for seniors by exclusively advertising positions to people 60 and over

Kato Mfg. Co., Ltd. (employees: 107; capital: ¥20 million), is located in Nakatsugawa City, Gifu Prefecture. Founded as a smithy in 1888, it has done business involving press and sheet metal working since the end of World War II.

Around 2001, in an effort to improve its ability to support customers and further grow its earnings, the company started giving thought to extending the operation of its factory to Saturday, Sunday, and holidays. Realizing it did not have enough employees for this, the company ramped up its hiring of college graduates. However, too few young people in the area prevented the company from filling its shortfall.

It was then that the company's president (who was senior managing director at the time), Keiji Kato, knowing that there were many seniors who wanted to work but had no opportunities, arrived at the idea of having seniors work shorter hours and only on Saturdays, Sundays, and holidays. He sent out a job advertisement exclusively for seniors that was worded as follows: "To us old-timers, Saturdays and Sundays are weekdays. We're looking for ambitious people, men or women. But there's an age limit: you can't be younger than 60." The ad received an enormous response, with 100 people – a number beyond his expectations – applying. He hired 15 of these. Leveraging the efforts of its enthusiastic senior workforce, the company has almost without issue achieved its goal of operating its factory 365 days a year, without placing any extra burden on existing employees.

Keiji Kato, President

Seniors on the job at the company

Job ad targeting seniors

It has continued to hire seniors. Now, almost half of its current staff, 54 of 107 employees, are seniors working shortened hours. 15 years after the company began hiring seniors, the professional opportunities for seniors at the company have expanded. While seniors started out working only on Saturdays, Sundays, and holidays, the wishes of employees in the working generation led to some seniors working even on weekdays. As much as possible, the company aims to give seniors not only simple tasks but also work normally done by younger and mid-career employees. This has freed up younger workers to take on management work that includes thinking about future business, developing products, and serving as line leaders.

The company has also enlarged the text on its notices and work instructions, and has begun using more photos and illustrations to help things be understood at a glance. It is also taking steps to make its working environments more comfortable, including deploying machine tools that are easy for seniors to operate.

Says President Kato, "While not giving special treatment to seniors just because they are seniors has been the secret to our continued success, it is essential to build the right working environments and provide psychological support. Even so, our seniors have achieved results that exceed their investment cost."

Case 2-1-3 S·S·M Co., Ltd.

A company that provides work to working moms raising kids

S·S·M Co., Ltd. (employees: 225; capital: ¥10 million), located in Osaka City, Osaka Prefecture, provides temporary childcare and small-scale nursery school services. The company, whose name stands for Super Strong Mother, was founded in 2012 with the guiding principle of supporting working mothers. Founder Koji Ueno says the idea for the company came to him when he was planning and executing a sales event for diapers at a shopping mall as an employee in a large hygiene product manufacturer's diaper business. Says President Ueno, "There was something powerful about how mothers who were actually raising children explained products to customers. I realized that there needed to be a mechanism for more effectively leveraging, worldwide, the strengths that mothers raising children have.

Very soon after establishing the company, he began offering daycare services in downtown Osaka. When he founded the company and was operating a daycare center that took in kids aged zero to two, he was aware of the need for mothers to be very close to their children, especially toddlers, in the event that something happened. He also realized that there were women who had started their careers and wanted to work but could not because their offices were far away from daycare centers. Thinking that he could address these needs by building places for mothers to work at daycare centers, he took on call center operations and established a call center on the floor of a building that had a daycare center. He then set up systems to allow for mothers to work in the adjoining offices. The mothers working at the call center are hired as employees of the company and have free access to the company's daycare center. Says President Ueno, "We have built an environment that allows highly skilled women wanting to work to do so at a call center that allows for "working as much as they want whenever they want" and occasionally check in on their children on a different floor. Our mission is to break down the walls between childcare and women working."

Going forward, we plan to expand the scope of the work women do while raising children by adding to our call center work and offering our employees accounting, programming, and other work requiring special skills.

Koji Ueno, President

The company's call center

Case 2-1-4 Nazatec Co., Ltd.

A company that facilitates female workforce participation by dispelling stereotypes and expanding work opportunities

Nazatec Co., Ltd. (employees: 76; capital: ¥20 million), located in Inazawa City, Aichi Prefecture, primarily performs metal pipe forming and processing to produce air conditioning parts for business use and automatic transmission parts for automobiles.

The company has a shift system for part-time workers that provides flexibility in letting employees set their workdays. It also promotes workplace participation by women through its "junior employee" program that allows women without full-time childcare responsibilities to work full-time for an hourly wage. Of the company's 76 employees, 45 are women and 39 are enthusiastic production floor workers. The company also stands out for its efforts to dispel stereotypes and expand work opportunities for women.

Female employees doing welding work

Previously, the company had decided that "welding was dangerous and therefore a man's work." However, during one peak business season, management had a female employee try welding work as it did not require any special qualification. The women had no problems doing the job.

Every female employee after that did not hesitate to do welding, and such work has become a natural job for female employees. The company now pays for its female welders to acquire certifications and pays them a special skill allowance, which also improves their motivation.

The company says that such efforts to boost female workforce participation have significantly alleviated its workforce shortage, and that it will continue such initiatives going forward.

Case 2-1-5 Sato Metal, Co., Ltd.

A company that expands female employee work opportunities and addresses a workforce shortage by helping women acquire certifications

Sato Metal, Co., Ltd. (employees: 13; capital: ¥10 million), located in Iwanuma City, Miyagi Prefecture, operates a special metal recycling business and intermediate waste disposal business for industrial metal waste. When its operations were greatly disrupted by the Great East Japan Earthquake in 2011, the company experienced a severe shortage of workers. After its female employees stepped up to help, the company discovered and has since made use of the diversity of roles that women play in the workforce.

Katsumi Sato, CEO

One example of this is how it implemented its "Program to Support Certification Acquisition." Under the program, the company subsidizes costs involved in acquiring certifications to encourage employees to do so.

Using this program, one female employee acquired a forklift license and began operating a forklift, a job for which the company had previously depended on male employees. Work efficiency improved enormously. Other female employees began acquiring licenses after that, smashing the stereotype at the company that "forklift operation is a man's job." This expansion of women's roles in the workplace also helped alleviate the company's workforce shortage.

Female employee operating a forklift

The company also implemented a flexible work shift system for part-time female workers whose time was restricted by child care or other responsibilities. What began as three regular employees and two part-time workers after the Great Ease Japan Earthquake has in 2018 become a highly satisfied workforce of 13 people who help ensure seamless business growth.

Case 2-1-6 Ariyoshi Farm, Ltd.

A company that has employed seniors through inventive approaches to shortened workday programs and work methods

Ariyoshi Farm, Ltd. (employees: 15; capital: ¥3 million), located in Sapporo City, Hokkaido, sells fresh produce wholesale and packages them.

The company had previously advertised for "young people capable of doing heavy labor" and regular employees who would stay with the company long-term. However, nobody at all applied because of the perception that the work would be hard and involve things like handling melons and other heavy objects.

This prompted the company's president, Tomio Ariyoshi, to reflect on the operations conducted throughout the year. He realized that, because the company dealt in agricultural produce, the workload was small in the winter but grew larger between spring and fall, when the company would experience a shortage of workers. This prompted him to focus on utilizing seniors, who spent the snowy winters in their homes and wanted to work again starting in the spring. Moreover, because of the many seniors who value spending time on hobbies and other non-work activities, he decided that he could attract jobseekers not by making them into full-time regular employees but by allowing them to work under conditions appropriate to those wanting to work shorter hours.

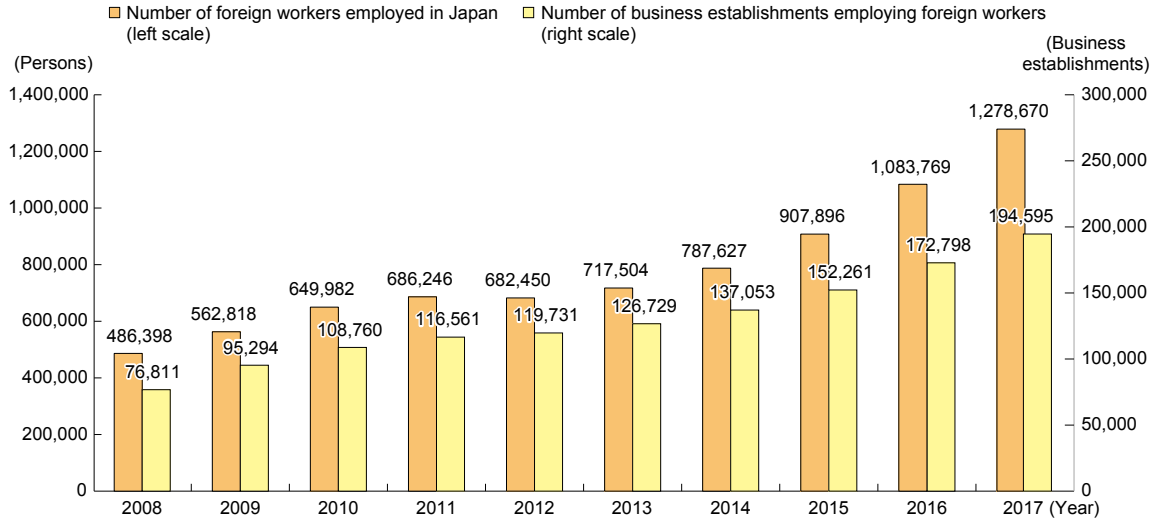
He therefore implemented a part-time shift system that allowed workers to work a shorter day: four hours either in the morning or afternoon. The company has also devised methods of informing its workers of the work to be done. As an example, rather than being told verbally, workers are given sheets that describe job processes and details for that day. The weight and quantity of produce sold depends on the market price that day, and this determines how boxes are packed and other such work processes are performed. Furthermore, some seniors are not confident about their ability to remember things. The company says that, since it began having workers refer to the sheets when they work, everyone is doing their job correctly and mistakes have decreased. The company has also taken measures to reduce workers' physical strain. One example is its installation of lifts next to workbenches used for handling heavy objects, eliminating the need for seniors to lift heavy objects themselves.

Since beginning these efforts, the company has been able to hire about 10 seniors (the oldest of whom is 68) over a roughly three-year period. Many of these workers were refused employment at other companies because of their age. These seniors, a hard-working group, are simply happy to have a job. Word-of-mouth has also led to these seniors being written up about in newspapers and other media, which has boosted the company's reputation in the area, increased business inquiries, and given the company more work. The company provides a successful example of alleviating a workforce shortage by creating an environment comfortable for seniors to work in.

Column 2-1-1 Foreign workers' employment status at SMEs

According to MHLW's *Regarding the Notification Status of Foreign Workers' Employment Status*, the number of foreign workers employed in Japan was approximately 1.28 million at the end of October 2017, the highest number since notification became obligatory in 2007. In addition, there were about 190,000 business establishments employing foreign workers, which, like the number of foreign workers employed in Japan, was a record high (Fig. Column 2-1-1 (1)). According to the same study, about 52% of foreign workers were employed in business establishments with fewer than 100 employees. The study further shows that about 76% of business establishments employing foreign workers are business establishments with fewer than 100 employees, suggesting that there is active use of foreign workers even among SMEs.

Fig. Column 2-1-1 (1) Trends in number of foreign workers and number of business establishments employing foreign workers



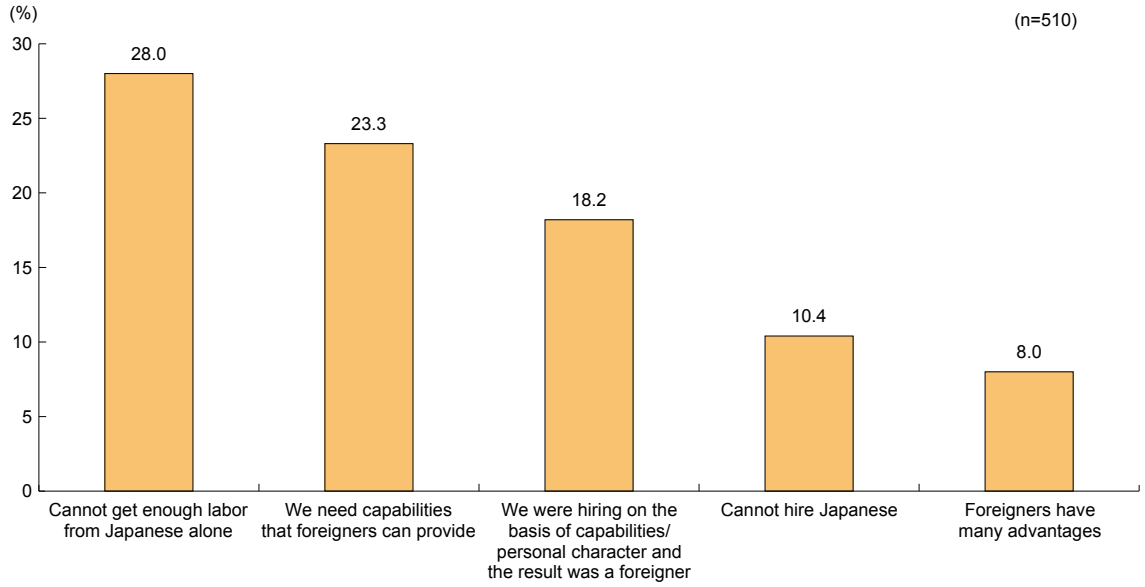
Source: MHLW, *Regarding the Notification Status of Foreign Workers' Employment Status, Summary.*
Note: Figures are as of October 31 of each year.

Although there are no public statistics that give a comprehensive picture of the use of foreign workers at SMEs, in 2016, the Japan Finance Corporation Research Institute used a *Questionnaire on the Use of Foreign Personnel*, with 13.3% of the responding enterprises saying that they employed foreign workers. Three out of four of the enterprises that did employ foreign workers answered that the number of foreign employees was "4 or fewer."

According to the same questionnaire, the most common employment pattern at those enterprises that employed foreigners was as a regular employee (58.7%), followed by enterprises that employed them as non-regular employees (39.0%) and those that hosted them as intern trainees (21.0%).

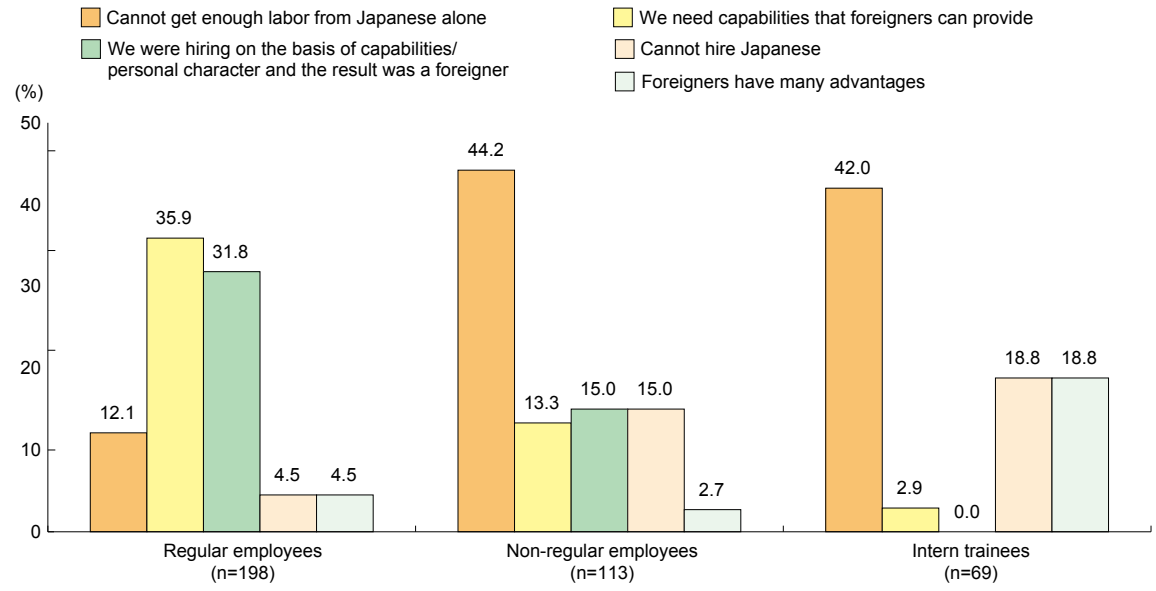
The most common reason given for employing foreigners was "Cannot get enough labor from Japanese alone" (28.0%), followed by "Cannot hire Japanese" (10.4%), showing that many such enterprises face a labor shortage and hiring difficulty (Fig. Column 2-1-1 (2)). Looking at the employment pattern for foreigners, the most common reasons for hiring foreigners as regular employees were "We need capabilities that foreigners can provide" (35.9%)" and "We were hiring on the basis of capabilities/personal character and the result was a foreigner" (31.8%), so in many cases foreigners were hired for reasons other than a labor shortage or hiring difficulty (Fig. Column 2-1-1 (3)).

Fig. Column 2-1-1 (2) Reasons for employing foreigners (top 5)



Source: Japan Finance Corporation Research Institute, *Questionnaire on the Use of Foreign Personnel* (August 2016).

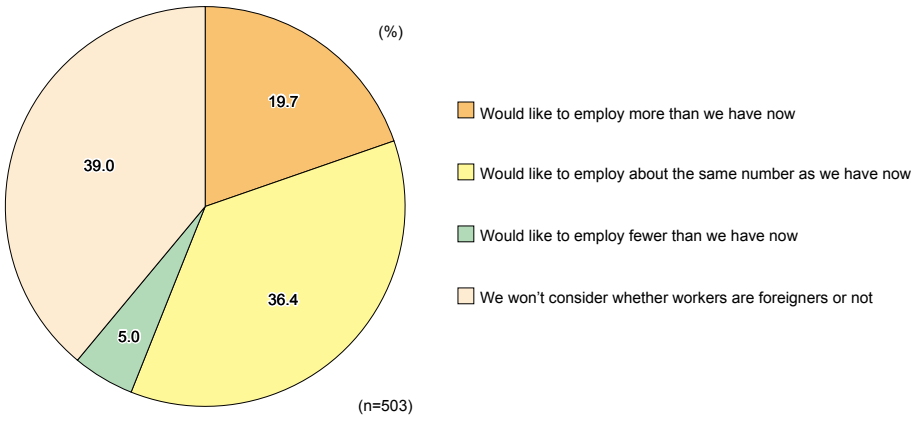
Fig. Column 2-1-1 (3) Reasons for employing foreigners (by employment pattern)



Source: Japan Finance Corporation Research Institute, *Questionnaire on the Use of Foreign Personnel* (August 2016).

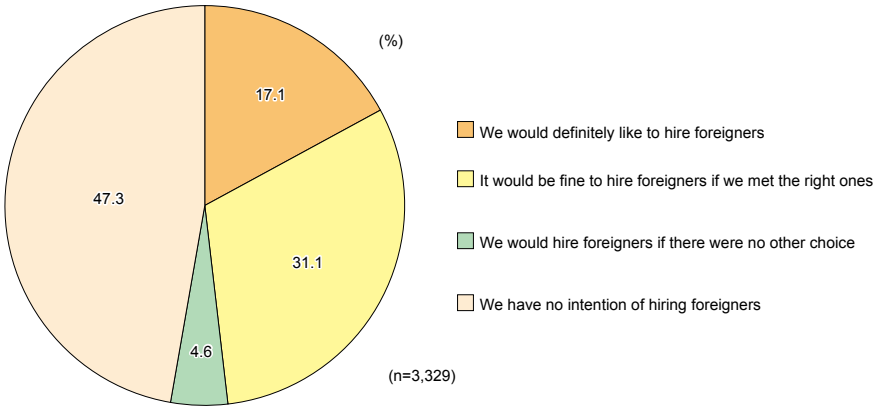
Asked about their policies on employing foreigners going forward, about half (56.1%) of enterprises that already employ foreigners indicated they are inclined to maintain or increase foreign employees (Fig. Column 2-1-1 (4)). Of those that do not employ foreigners, the most common response was "We have no intention of hiring foreigners" (47.3%), but 17.1% said, "We would definitely like to hire foreigners" and 31.1% said, "It would be fine to hire foreigners if we met the right ones," showing that there are a certain number of enterprises who have a positive attitude toward employing foreigners (Fig. Column 2-1-1 (5)).

Fig. Column 2-1-1 (4) Policies on employing foreigners going forward (enterprises that already employ foreigners)



Source: Japan Finance Corporation Research Institute, *Questionnaire on the Use of Foreign Personnel* (August 2016).

Fig. Column 2-1-1 (5) Policies on employing foreigners going forward (enterprises that do not currently employ foreigners)



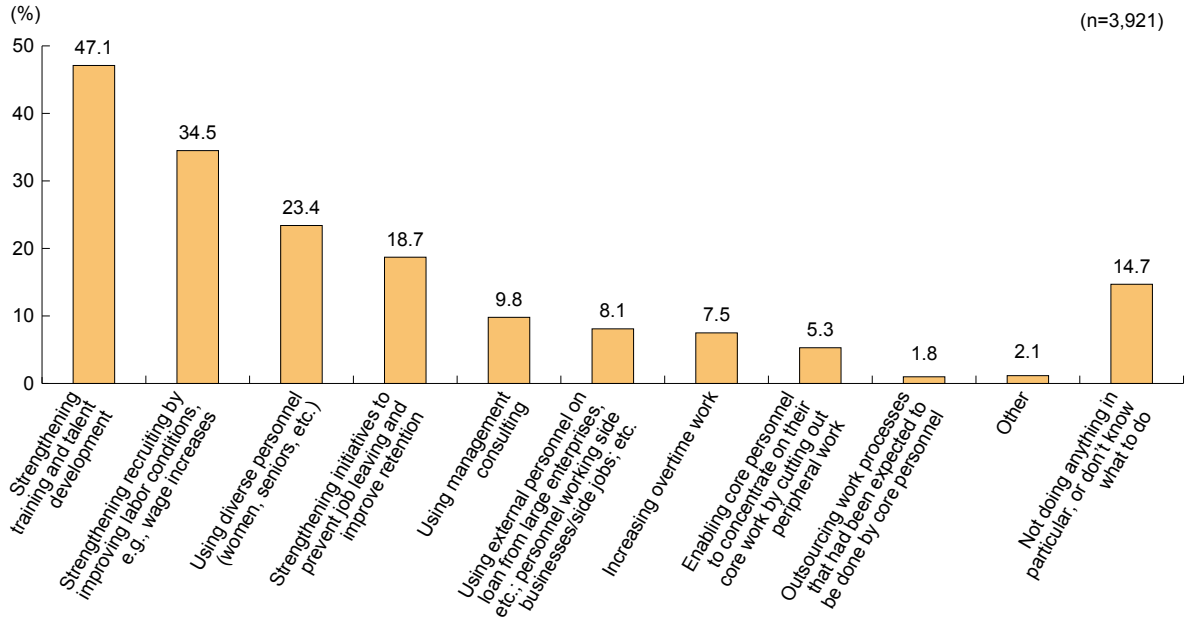
Source: Japan Finance Corporation Research Institute, *Questionnaire on the Use of Foreign Personnel* (August 2016).

5. Response to shortage of core personnel

Up to this point, we have put the focus on "labor personnel," who are indispensable to SMEs in the management of their businesses. We have analyzed SMEs' sense of a shortage of labor personnel and countermeasures SMEs are taking. From this point forward, we look at measures SMEs are taking to secure "core personnel," who have a high degree of expertise and technical skills and play central roles in business activities.

Fig. 2-1-34 looks at how SMEs are responding to the shortage of core personnel. The most commonly given response was "Strengthening training and talent development" (47.1%), showing that many enterprises are inclined to develop core personnel internally. On the other hand, there is still only a small percentage (8.1%) that responded, "Using external personnel on loan from large enterprises, etc.; personnel working side businesses/side jobs; etc."

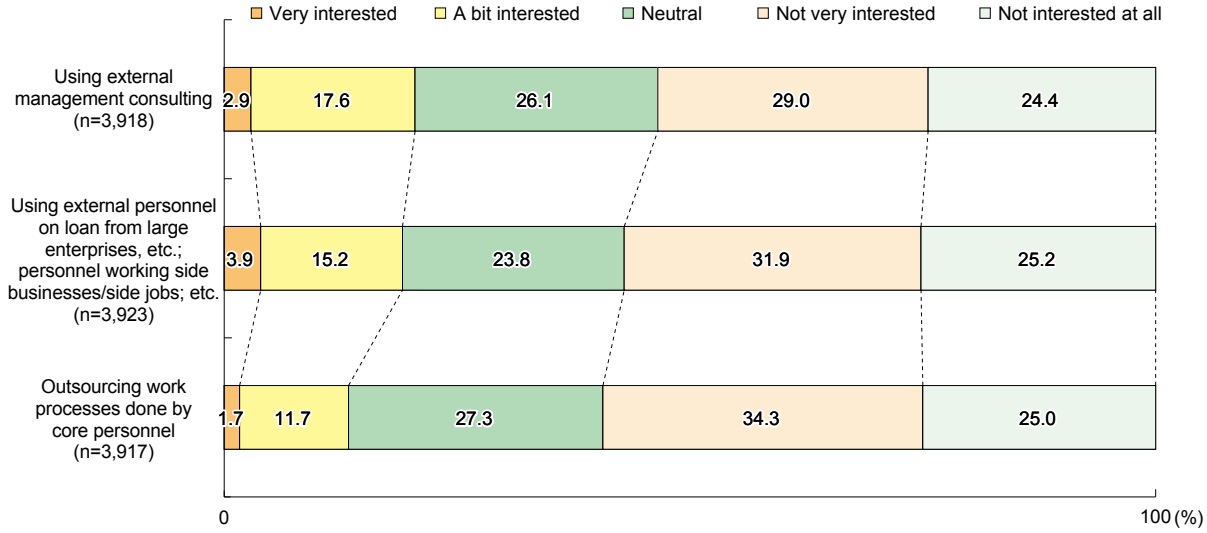
Fig. 2-1-34 Response to core personnel shortage



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Fig. 2-1-35 shows SMEs' level of interest in using external personnel as a countermeasure to shortages of core personnel. It reveals that in the groups that answered, "Using external management consulting" or "Using external personnel on loan from large enterprises, etc.; personnel working side businesses/side jobs; etc.," about 20% were interested in using external personnel, as indicated by combining those that answered, "Very interested" or "A bit interested." It is inferred that training core personnel internally takes time, and from this analysis it is understood that using external personnel is also an available measure, but only a fraction of enterprises are interested in it currently.

Fig. 2-1-35 SMEs' level of interest in using external personnel as a countermeasure to shortages of core personnel



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Column 2-1-2 Results of the Evaluation Working Group for Recruiting and Utilizing Core Personnel in SMEs, Small-scale enterprises, and Start-ups (Core Personnel Recruitment WG)

The business environment of enterprises has been undergoing major changes due to the fourth industrial revolution and changes in population dynamics. As the source of added value has shifted from "capital" to "personnel," the shortage of labor has become a constant problem. Especially in SMEs, business succession due to the aging of managers is also a significant problem, which is a serious situation as "shortage of labor" is given as one of the top management issues. Furthermore, the sense of a shortage of core personnel is noticeable among SMEs aiming at growth/expansion, and is starting to affect aspects such as the development of new business. It is necessary to reaffirm the importance of a "personnel strategy" as "management strategy," and strategically advance recruiting "core personnel" necessary for sustainable growth and development of the enterprise and regional revitalization as an urgent issue.

Under these circumstances, with the advent of "the era of the 100-year lifespan," the way people work and the manner of participating in society are diversifying, and there is also a need to improve the environment so that diverse individuals can continue to be active. Consequently, it is necessary to discuss each aspect of (1) workers, (2) enterprises as training entities, (3) enterprises as receiving entities (SMEs), and (4) the labor market as a total package.

Against the background described above, the Study Group for Enhancing Personnel in Japanese Industry (Personnel Enhancement Study Group) was established in October 2017 as a place to examine strategies to achieve the optimum use of personnel for society as a whole, which is the source of value creation for the Japanese economy. Under this study group, the Evaluation Working Group for Recruiting and Utilizing Core Personnel in SMEs, Small-scale enterprises, and Start-ups (Core Personnel Recruitment WG) was formed from the standpoint of SMEs in particular (personnel needs side), while the Working Group for Examining the Necessary Desired Personnel and Career Construction Support (Desired Personnel WG) was established to focus mainly on the standpoint of workers and enterprises as training entities, and a report was compiled in March 2018.

The types of personnel that SMEs are looking for

Core personnel

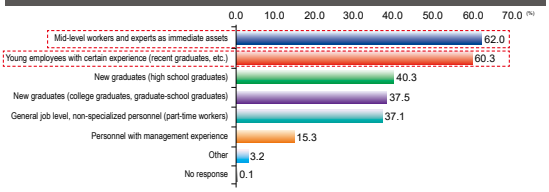
- Personnel who work at the core of each department and work in high-level and difficult business processes.
- Personnel in charge of organizational management and operations.
- Personnel who command and manage multiple persons.
- Personnel with a high degree of expertise, technical skill, and proficiency.

Labor personnel

- Personnel who work in relatively fixed business processes in each department.
- Personnel that are not in charge of organizational management and operations.
- Personnel who work under the command and management of core personnel.
- Personnel who assist core personnel.
- Additionally, personnel who do not have a high degree of expertise, technical skill, and proficiency, but provide labor that is indispensable to business operations.

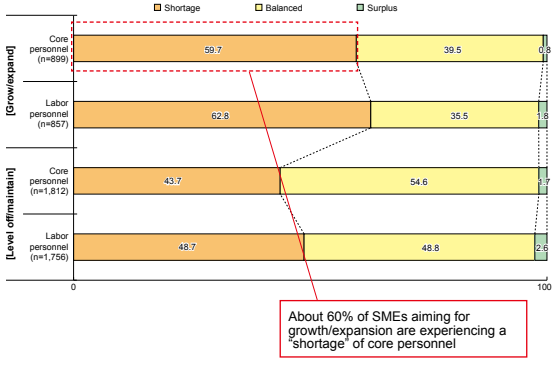
Source: SME Agency, 2017 White Paper on Small and Medium Enterprises in Japan

Personnel that SMEs feel they need



Source: The Japan Chamber of Commerce and Industry, Aggregate results of *Survey about Responding to Labor Shortage and Others*.

Personnel surplus or shortage, by type of business development policies



Source: SME Agency, 2017 White Paper on Small and Medium Enterprises in Japan

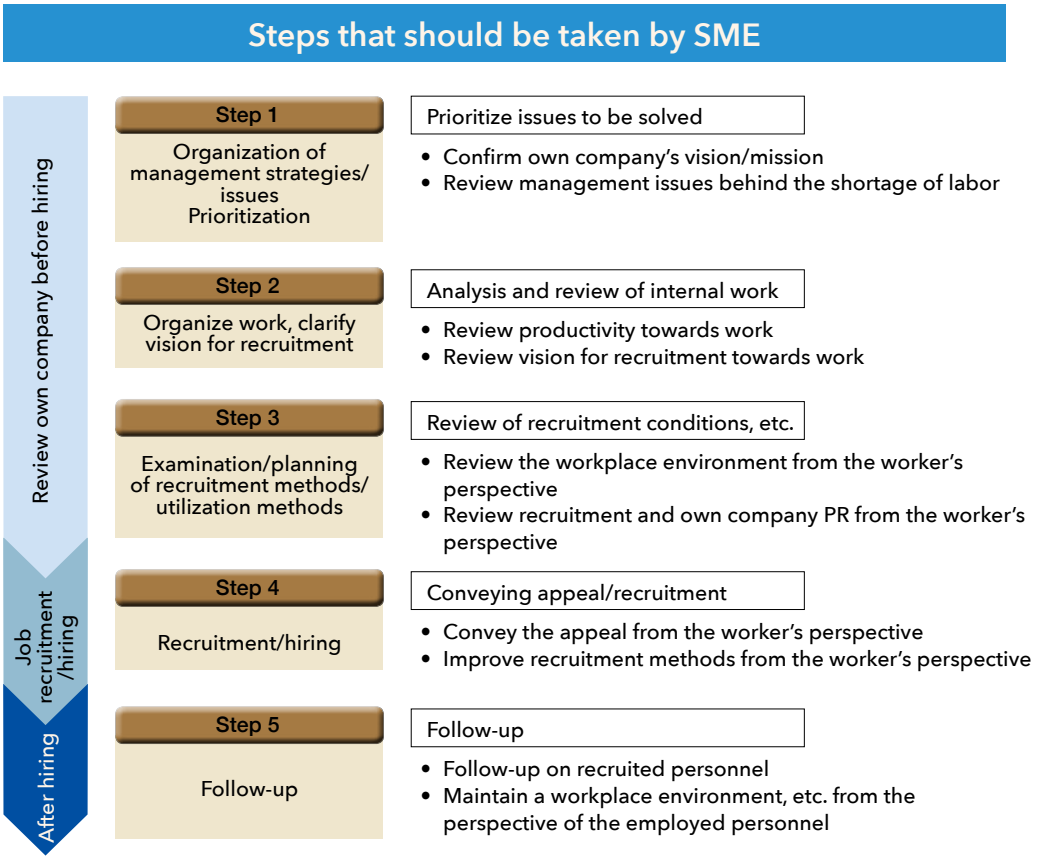
The challenges and direction of the Core Personnel Recruitment WG, which evaluated the situation of SMEs from each of the three perspectives of (1) SMEs, (2) labor market (intermediary support function), and (3) workers (population formation), are shown as follows.

(1) SMEs

[1] Steps to Be Taken by SMEs for Personnel Recruitment

Many SMEs that have succeeded in recruiting core personnel are engaging in comprehensive initiatives such as "reviewing management issues/work," "reviewing productivity and profiles of candidates sought," and "improving the workplace environment (from the standpoint of workers)" on a multifaceted and ongoing basis. This shows that comprehensive initiatives such as clarification of job recruitment through review of management issues and work and review of the workplace environment after personnel recruitment are necessary in recruiting core personnel for SMEs.

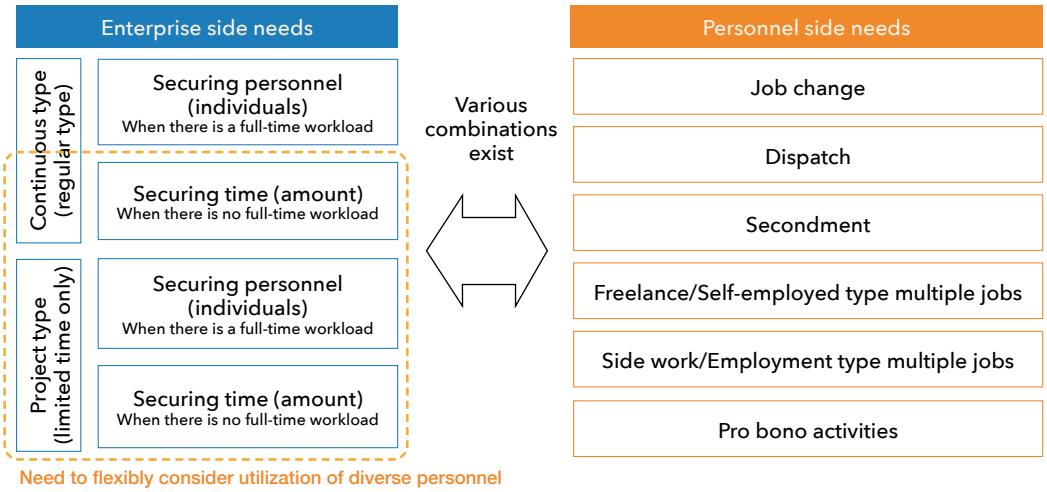
In addition, considering that not only "salary" but also factors such as "sense of satisfaction" and "sympathy for mission" are extremely important for workers (personnel side) in decision-making such as when changing jobs, it is important to transmit the strengths/attractions of the enterprise side (not just recruitment information) from the worker's perspective in order to attract the interest of workers.



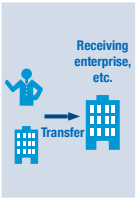
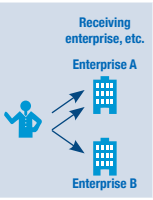
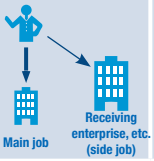
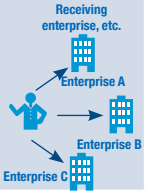
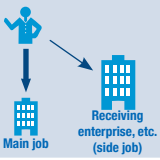
[2] Necessity of Examining Various Utilization Methods

Generally, in recruiting core personnel, many SMEs desire to adopt a full-time work lifetime employment type, but considering salary and workload (time), it is not always necessary to recruit "one person (full-time)." In the era of a labor shortage, enterprises need to recruit only the required personnel as much as necessary and when necessary, and there is an increasing number of SMEs who are considering the option of diverse human resource utilization methods.

In order for enterprises to recruit core personnel, not only can they adopt the (1) full-time/lifetime employment type, there are also various methods including (2) the "project type" and "time (quantity) unit," which can permit diverse work styles such as concurrent business/side business/secondment, etc., and (3) training of internal employees. It is important that enterprises flexibly examine various utilization methods and select one that is appropriate to their management situation, such as the enterprise's scale/growth potential and management issues.



Combination Examples of the Diverse Work Styles for Enterprise Needs

By enterprise need		Continuous (Regular) type			Project (Limited Time) type		
		Person unit	Time unit		Person unit	Time unit	
Examples of personnel utilization	Example	Main job type	Multiple job type	Side job type	Main job (full short-term)	Multiple job type	Side job type
	Overview	Transfer to a receiving enterprise, etc.	Based on specialized field, active simultaneously in multiple enterprises, etc.	Personnel have a main job, but have limited work days/hours and are active in other enterprises, etc.	Work full-time at a receiving enterprise, etc. for a certain period.	Active at multiple enterprises, etc. at the same time on a project base.	Personnel have a main job, but utilize weekday nights and holidays, and promote projects at other enterprises, etc.
	Form	Full-time work	2 days a week × 2, etc.	1 day a week, etc.	1 month (full-time work), etc.	2 days a week × 3 enterprises, etc.	1 day a week, etc.
	Illustration						

(2) Labor Market (Intermediary Support Function)

There is a large information gap between SMEs and workers (personnel side), such as "the enterprise side is not able to clarify their desired personnel" or "the information on the enterprise side is not properly delivered to the personnel side, and the personnel side does not demonstrate any interest in the SME," which is why intermediary support functions are extremely important for SMEs to recruit core personnel. Consequently, recruiting someone as an intermediary supporter and forming a sustainable scheme that fills the gap between the two are indispensable for market formation.

[1] Functions of Intermediary Supporters

In the recruitment of core personnel of SMEs, the roles required of intermediary supporters (coordinators) are diverse. First of all, in order for SMEs to recruit personnel, it is necessary to review the recruitment image after clarifying the company's management issues, and support for this accompanying type is needed. In addition, accompanying support (follow-up) after recruiting personnel is effective in personnel retention. Even for intermediary supporters, it is necessary to comprehensively support all the steps that SMEs should take in recruiting the above-mentioned core personnel, and different organizations are often in charge of recruiting and fostering intermediary supporters that can do so is extremely important. Currently, management support (management support organizations, etc.) and recruitment support (staffing agencies, etc.), but even then, close collaboration of both functions (the construction of an interactive sharing system for individual case information) is extremely important for prevention of a mismatch.

[2] Sustainable Schemes

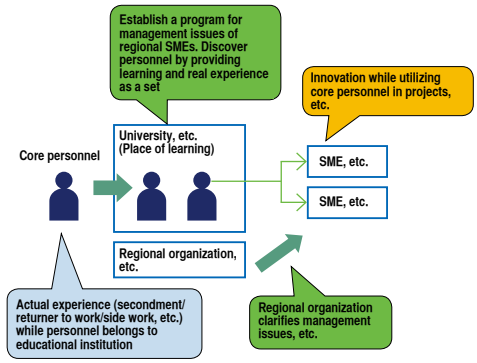
Establishing an autonomously sustainable scheme is essential for SMEs to be able to reliably recruit core personnel. Various forms of personnel recruitment means (schemes) are conceivable depending on factors such as the personnel sought, the time that can be spent on recruiting personnel, and the cost, but to establish them, continuous operation by supporters, such as regional financial institutions, universities, and NPOs, among other organizations rooted in the region, is indispensable. It is necessary also for the government to encourage lateral development while creating success stories.

[Example 1] Promotion of Open Innovation Through Industry-Academic Collaboration

■ **Purpose**
- Promote open innovation by matching SMEs that have management issues with personnel belonging to educational institutions, enabling a fusion of their respective knowledge

■ **Characteristics**
- Along with serving as an opportunity for innovation to SMEs in the region by utilizing the knowledge of various core personnel, for the core personnel side, it can ensure an environment where actual experience can be had while learning at an educational institution

■ **Scheme outline and players**
- Methods such as having educational institutions (universities, etc.) and regional organizations (financial institutions and support organizations, etc.) operate together can be considered

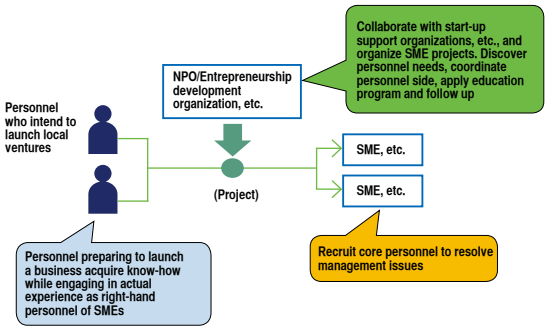


[Example 2] Entrepreneur Training/Support for Regional Revitalization by NPOs/ Entrepreneurial Development Organizations

■ **Purpose**
- Provide a program centered on SME projects to train entrepreneurs who intend to launch local ventures, etc. for the purpose of regional revitalization

■ **Characteristics**
- Along with enabling SMEs in the region to recruit the personnel necessary for the project based on management issues, personnel who are planning to prepare for starting a business can acquire know-how through that actual experience

■ **Scheme outline and players**
- For example, methods can be considered for the NPO, which develops personnel and supports entrepreneurs in the region, to discover personnel needs of SMEs in the region, and find personnel, etc. that intend to launch local ventures, etc.

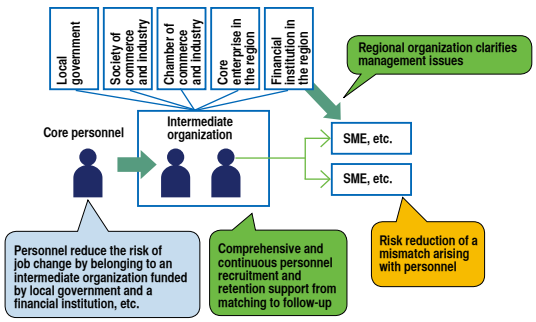


[Example 3] Maintenance and Development Support of Local Industry by Regional Organizations and Core Enterprises/Local Governments

■ **Purpose**
- To maintain and develop the activities of regional SMEs, establish a framework for comprehensive and continuous personnel recruitment and retention support from matching to follow-up for SMEs with clear core personnel needs

■ **Characteristics**
- For SMEs in the region, the risk of changing personnel when there is a mismatch with personnel can be reduced, while the core personnel side can plan for risk reduction of job change, etc. by belonging to an intermediate organization funded by local government and a regional financial institution

■ **Scheme outline and players**
- For example, one method could involve a regional institution (financial institution or support organization, etc.) and personnel service, etc. cooperating to establish an intermediate organization, etc. and operating it while coordinating with local government

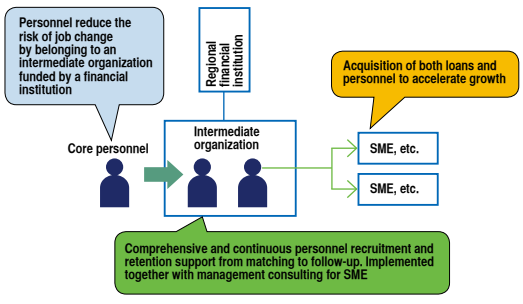


[Example 4] Support for the Acceleration of Growth in Regional SMEs by Regional Financial Institutions

■ **Purpose**
- In order to accelerate the growth of regional SMEs that are borrowers, regional financial institutions, etc. construct a mechanism to carry out the management consulting accompanying the loan and the recruitment of core personnel to supplement necessary functions

■ **Characteristics**
- For SMEs in the region, it is possible to recruit personnel to supplement the functions to accelerate growth, and for regional financial institutions, it will be possible to encourage the borrower's management improvement

■ **Scheme outline and players**
- For example, there is a possibility that a regional financial institution that wishes to support a SME in the region collaborates with a personnel service capable of personnel matching, which they operate together while cooperating with local government



(3) Workers

As a category of core personnel required by SMEs, they can be largely divided into "backbone personnel" and "specialized personnel," but regardless of categories, mindset is extremely important and is more significant than skills and experience as a criteria to hire or not to hire.

⇨ **The ability to step forward** (action)
(Expert opinion) "People who rely only on internal resources would be difficult," "The ability to take on work with their own negotiating ability, network, and perseverance is important" "People who can work with others to get the job done are needed"

⇨ **Thinking ability** (thinking)
(Expert opinion) "People who are strongly conscious of the scope of their work are not suitable"

⇒ **Ability to work in a team** (teamwork)
(Expert opinion) "In SMEs and micro enterprises, people do not follow the style of intense work in large companies," "Human relations are more important than abilities" "Communication skills, integrity, and a spirit of cooperation are important elements""

⇨ **Backbone personnel:**
A generalist with a high level of portable skills and highly versatile management skills, who plays a pivotal role in management

⇨ **Specialized personnel:**
A specialist having a certain level of portable skills and highly specialized skills

* Opinions of Core Personnel Recruitment WG committee members are arranged by the secretariat based on the category of "basic social skills (2006)"

[1] Formation of potential population – Provision of opportunities for learning

Regardless of whether they are backbone personnel or specialized personnel, it is important to provide more opportunities (learning opportunities/lifelong education) to improve the "basic social skills" required for active participation and interaction with many people at the SME, and encourage the formation of a population of core personnel in SMEs in the future.

[2] Formation of actual population – Creating a framework to "take the first step"

There is also the opinion that there are many potential personnel who cannot take the first step from their current situation, even if they might be interested in playing an active part at a SME. Therefore, it is important to create methods for taking the first step when considering the workers to be involved at SMEs. Specifically, the creation of casual opportunities is very useful, such as (1) pro bono activity, (2) secondment, and (3) concurrent business/side business. Furthermore, (4) internship experience during student days is also effective for subsequent decision-making.

Section 4 Summary

In this chapter, Section 1 gave an overview of the worsening labor shortages at SMEs. The sense of a labor shortage is growing at SMEs across industry sectors, and an increasing percentage of these enterprises feel that recruiting difficulty is a management problem. It was understood that the personnel sufficiency rates were particularly low at small-scale enterprises.

Section 2 confirmed that the background to this labor shortage included some structural problems: Japan's declining working age population and its declining birthrate and aging population. Thus, although the labor shortage situation is projected to persist in future, the increase in the labor force population of diverse personnel (women and seniors) is mitigating declines in the labor force population. It is inferred that the use of women and seniors will be increasingly important as the labor shortage continues.

On the other hand, the section showed that to put women and seniors to use as part of the labor force, it is important for enterprises to offer flexible work systems and expand the age range they are recruiting, among other measures. It is expected that initiatives like these will be used to increase the labor force population in future and thereby respond to labor shortages.

Section 3 provided an overview of the responses of SMEs under the condition of labor shortages. At SMEs, the stronger the sense of a labor shortage, the more proactively they are using women and seniors, and these enterprises are making an effort to prepare the workplace environment, for example by making working hours more flexible. Additionally, enterprises with a strong sense of a labor shortage are expanding the scope of business processes performed by women and seniors instead of sticking with old ideas.

At a time of labor shortage, it is extremely challenging for enterprises to secure enough of the personnel they want, but it seems possible that by putting the latent labor force (women, seniors, etc.) to work, and by innovating the work styles of their existing employees, SMEs could eliminate their labor shortages and contribute to increasing the labor force population in Japan as a whole.

Chapter 2

Review of work processes are instrumental to productivity improvement

In Chapter 1, we confirmed that there is presently a structural shortage of labor due to a decline in the working age population, and that the demand for women and seniors as employees in small and medium enterprises (SMEs) is increasing under these circumstances.

Although Japan's structural problems such as a decline in the working age population as well as a declining birthrate and an aging society are the causes of the labor shortage, corporate efforts can proceed to raise work efficiency in order to make full use of current employees. Succeeding in improving work efficiency by reviewing the current status of work is expected to contribute to the smooth operation of the business, such as providing for more time. That is why in this chapter we will analyze actual efforts to conduct a "review of work processes[1)]" using the *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (below, "questionnaire survey").

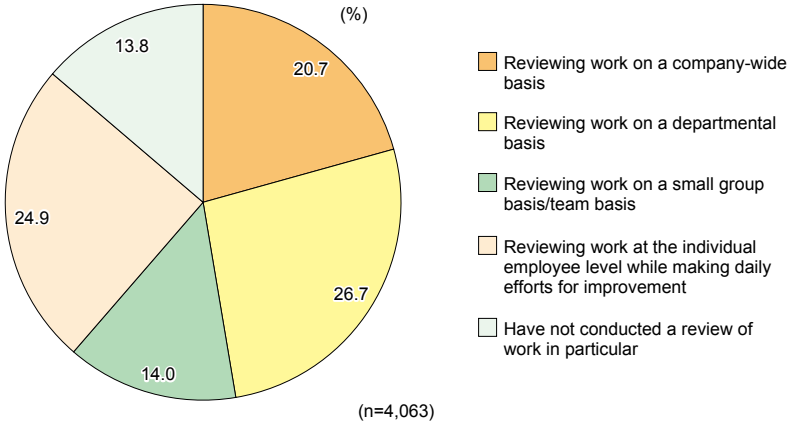
Section 1 Current status of work process reviews

In this section, we will analyze aspects such as the basis of work review efforts, the reasons for initiating efforts, and details of specific efforts and issues.

(1) Basis of work process review efforts

Fig. 2-2-1 shows the implementation status of work reviews among SMEs by the basis of their efforts. 26.7% are "reviewing work on a departmental basis," followed by 24.9% that are "reviewing work at the individual employee level while making daily efforts for improvement," while 13.8% responded that they "have not conducted a review of work in particular." Although there are differences in the basis of their efforts, these responses indicate that the majority of SMEs are conducting work reviews.

Fig. 2-2-1 Implementation status of work review and basis of efforts

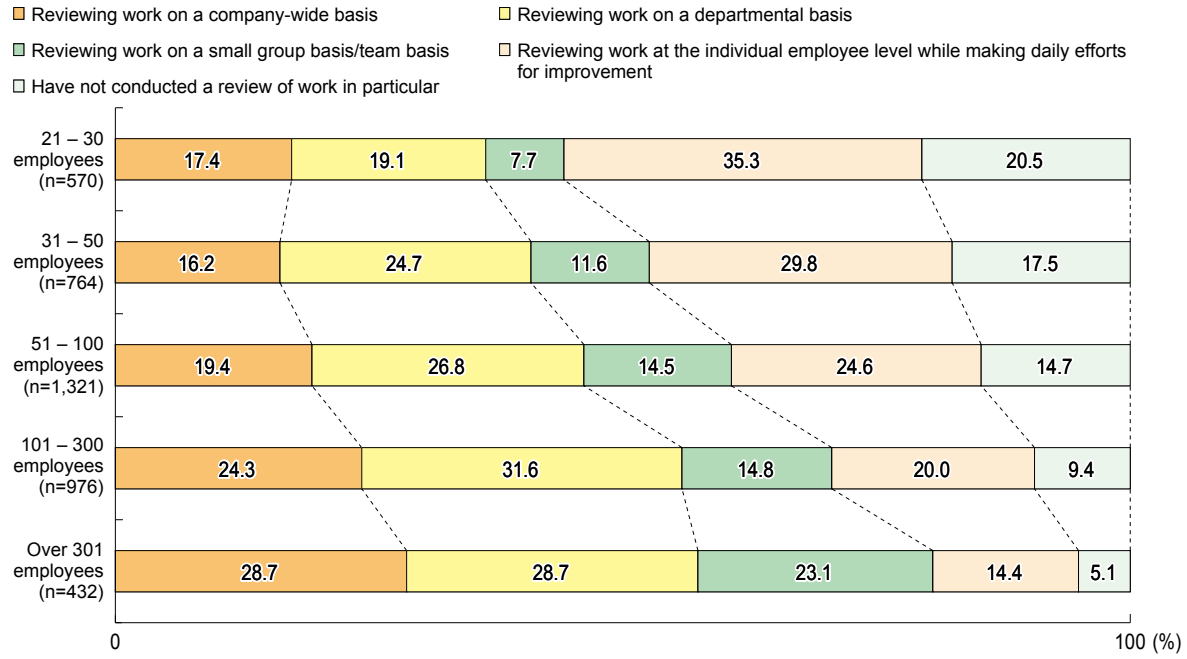


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

1) Here, "review of work processes" refers to a series of efforts to clarify the current business situation, evaluate measures to improve business in light of the business' current circumstances, and execute them in order to make work more efficient. In this chapter, the term is considered synonymous with phrases such as "work review," "business improvement," and "business process reform (BPR)."

Fig. 2-2-2 shows the basis of work review efforts by employee size. As the employee size increases, the proportion of enterprises who responded that they are "reviewing work on an enterprise-wide basis" tends to be higher. On the other hand, as the size of the enterprise becomes smaller, the proportion of enterprises who responded that they are "reviewing work at the individual employee level while making daily efforts for improvement," or "have not conducted a review of work in particular" is higher.

Fig. 2-2-2 Basis of work review efforts, as seen by employee size



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

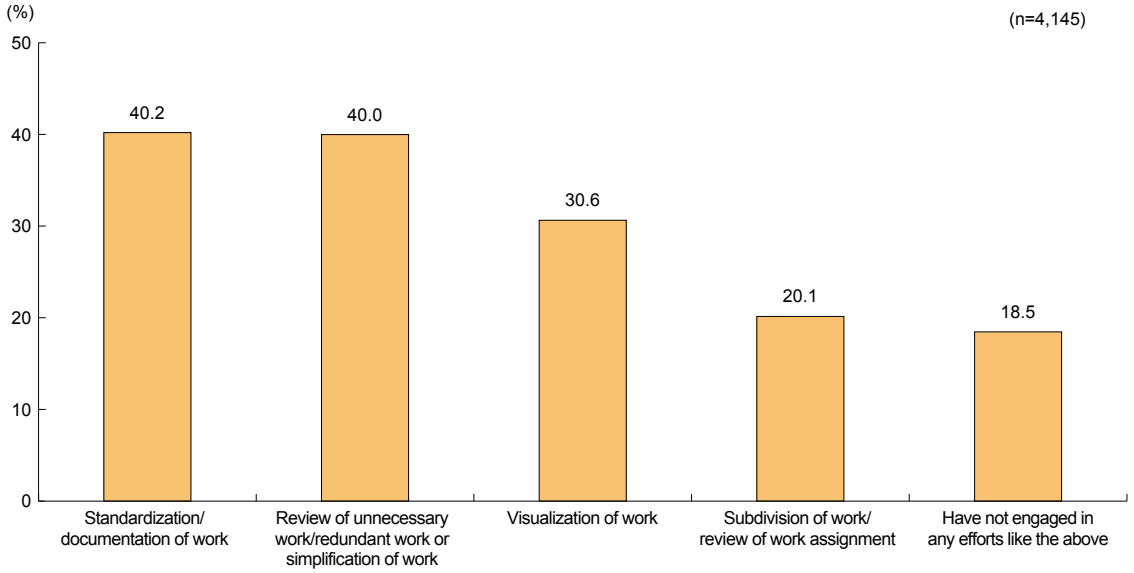
(2) Contents of work process review efforts

Fig. 2-2-3 confirms the specific efforts of the work review. Among SMEs that actually conducted work reviews, the most common examples of specific efforts are "standardization/documentation of work," followed by "review of unnecessary work/redundant work or simplification of work," then "visualization of work," in this order.

For example, documentation of work completed by employees within the enterprise can lead to an increase in the number of personnel who can learn the methods and take on the work. Moreover, we can infer that reviewing unnecessary or redundant work as well as simplifying work will produce surplus time for employees and therefore contribute to reduction of their workload. In addition, visualization of work has led to the discovery of unnecessary work which had been ongoing until now yet had actually lacked substance.

Even when we simply use the term work review, there are multiple methods as described above, and we can infer that SMEs are engaging in efforts appropriate to their respective circumstances.

Fig. 2-2-3 Specific efforts for work review

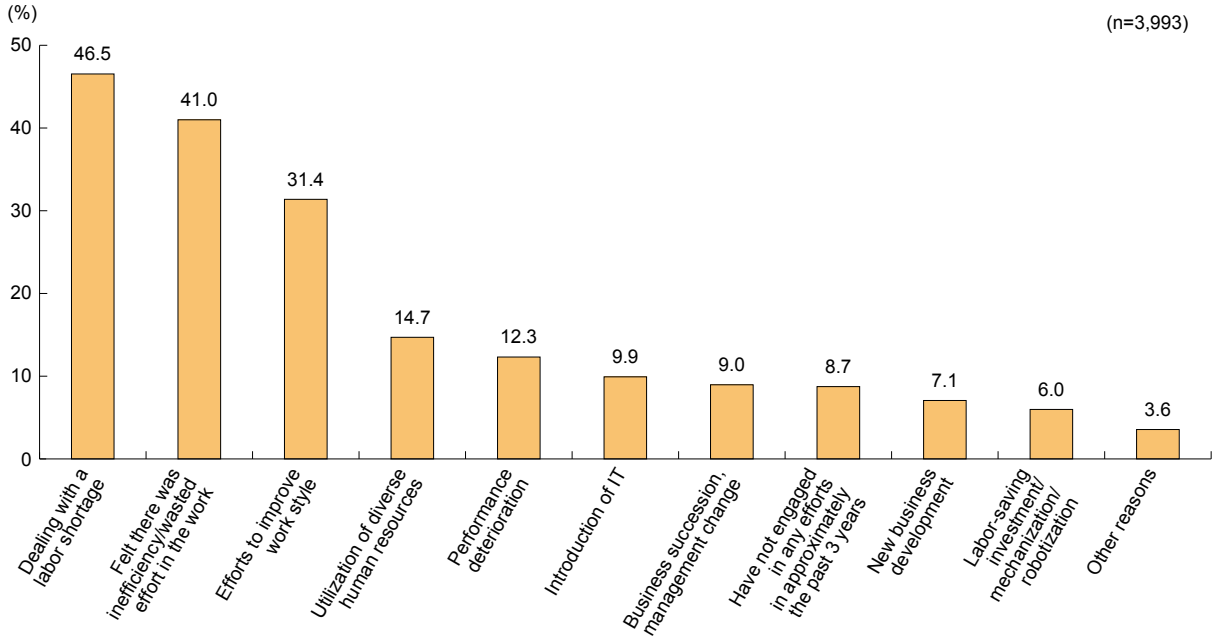


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

(3) Circumstances that prompted a review of work processes

Next, we will examine the circumstances that led SMEs to conduct a review of work processes. Fig. 2-2-4 confirms the circumstances among enterprises that engaged in a review of work processes over the past three years. Looking at the breakdown, 46.5% of the respondents answered "dealing with a labor shortage," which was the most frequently cited response, followed by 41.0% that said they "felt there was inefficiency/wasted effort in the work" and 31.4% that answered "efforts to improve work style."

Fig. 2-2-4 Circumstances that prompted a work review

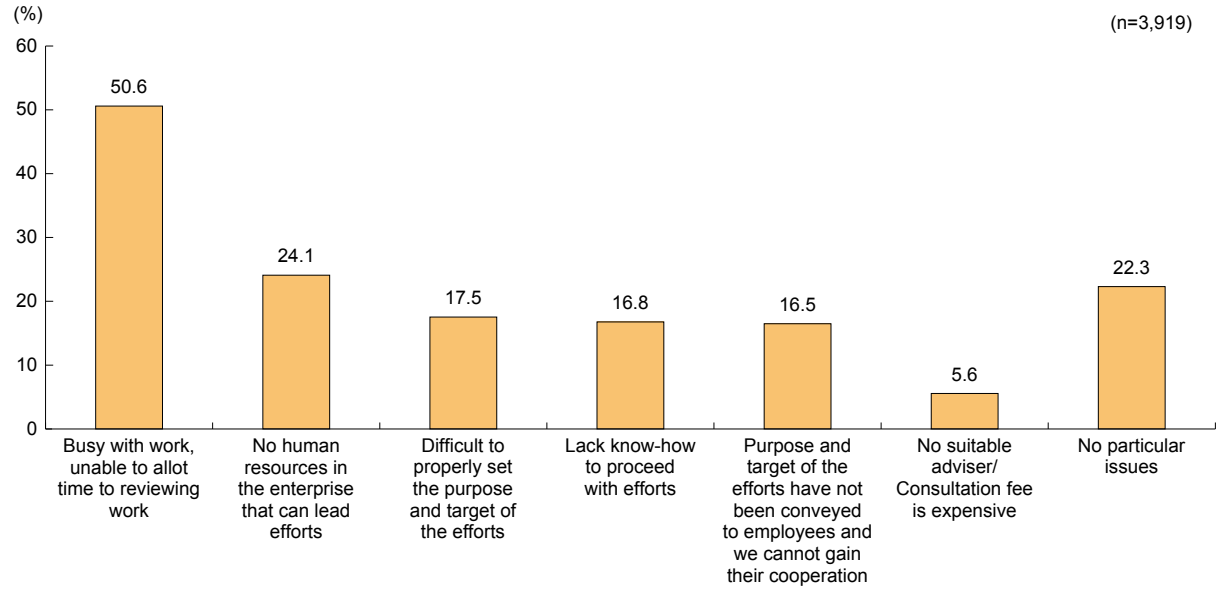


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

(4) Issues in reviewing work processes

Fig. 2-2-5 confirms the issues involved in conducting a work review. Looking at the breakdown, the answer with the highest proportion at 50.6% was "busy with work, unable to allot time to reviewing work." The next most common responses were "no human resources in the enterprise that can lead efforts" and "difficult to properly set the purpose and target of the efforts." While some respondents reported that it was difficult to secure time due to constraints from their current work, one can infer that there are a certain number of enterprises that are not well-equipped to review their work, such as lacking human resources who will serve as facilitators.

Fig. 2-2-5 Issues in conducting a work review



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Case 2-2-1 Shodoshima International Hotel Co., Ltd.

A company which has achieved efficiency in business by cutting down on unnecessary work and improving productivity

Shodoshima International Hotel Co., Ltd. (employees: 125; capital ¥100 million), located in Tonosho Town, Kagawa Prefecture, was founded in 1963 and operates as a resort hotel with 120 guest rooms.

General Manager Kyoichiro Kinoshita thought that as a business challenge for the company there were improvements to be made in profitability and staffing. Especially in Shodoshima where the population is aging and declining in number, he thought it was vital to promote improvements in productivity and develop a working environment comparable to that of other industries in order for the company to continue to secure personnel for the future.

Mr. Kinoshita therefore decided to undertake a review of how work was carried out at the hotel with the help of an external management consultant. Under the leadership of the general manager Mr. Kinoshita, a team was formed of employees eager to improve their work along with the consultant. The team identified certain housekeeping tasks which were taking up too much time and consequently set about eliminating this unnecessary workload.

For example, although there was a tea pot in every room it was hardly ever used and so guests are now offered convenient sticks of powdered tea and mugs instead. As a result, staff didn't have to clean the teapot which led to a reduction in working time of about 30 hours per year. Other examples include selling postcards at the shop instead of leaving them in guest rooms and displaying Wi-Fi signs on the door instead of in the room which led to a reduction of about 110 working hours over the course of one year. By reviewing and reducing workloads after carefully examining the necessity of certain tasks such as these, a total of 1,800 hours of work was saved over the year.

Kyoichiro Kinoshita, General Manager

"It was great to see the rise in the number of employees who voluntarily suggested improvements as a result of these initiatives" says Mr. Kinoshita. Because of these imaginative ideas from employees service towards guests improved which in turn heightens customer satisfaction. Additionally, because the company has reinvested profits brought about from improved productivity back into its workforce it has enabled the hotel to recruit new graduates from off the island.

By receiving support from an external consultant and overhauling the work environment not only can a more streamlined work environment be achieved but it can be said that it also leads to improved added value and staff retention.

The Shodoshima International Hotel

Case 2-2-2 Co-op Delivery Co., Ltd.

A company which encourages cooperation between departments to improve work efficiency

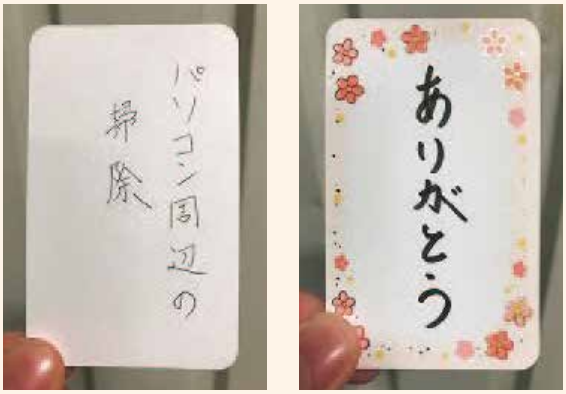
Co-op Delivery Co., Ltd. (employees: 39; capital: ¥50 million), located in Zama City, Kanagawa Prefecture, is a warehouse company which sorts and checks the quality of U Co-op's home deliveries. The company has suffered from the challenges of a chronic lack of human resources and poor staff retention, and has had problems with an ever increasing workload per person and constant overtime. The company, which believes that improving the workplace environment and improving employee satisfaction are paramount for ensuring steady staff retention for the future, has embarked on achieving a work-life balance with its goal of zero hour overtime and improved work efficiency.

In order to make everybody in the company aware of this drive for zero hours overtime and improved work efficiency the company president Shogo Hanamura formally declared the initiative had begun. The target of achieving zero hours overtime within 3 years was set and it was further decided that money saved from not paying overtime would be returned to employees in the form of bonus pay. This would ensure that employees could keep their level of income while actively trying to reduce their overtime.

As a starting point for reducing overtime all employees filled in a survey which identified that work roles specific only to a limited number of people, as well as a lack of communication, contributed to working extra hours. As a way to avoid having only one person able to carry out a specific role the idea of multi-skilled work was put into action through the creation of a work manual. This made it possible for more than one person to carry out any given role thereby making it easy for employees to help out in departments with high workloads and easy for employees to take breaks. Additionally, every employee's daily work schedule was posted on a white board so that everyone could clearly see each other's work roles for the day. Employees who needed extra help could then stick a "help" card on the board requesting help from other departments. Following on from this, if help was required for smaller jobs, such as cleaning the desks, etc. then employees could write the job on a small card and post that on the board too. 'Thank you' is written on the back of these small cards which gives a certain amount of motivation to the employee for having voluntarily carried out this additional task. It isn't always easy to have employees take on voluntary work and it is difficult to establish this kind of thing over the long term. For this reason the company says that the encouragement given by the words "thank you" written on the back of the cards is the key to the success of this initiative.

Shogo Hanamura, President

As a result of these efforts the total overtime from April 2017 to March 2018 decreased by 55% from the previous year with overtime pay down by approximately ¥5.8 million, a bonus of ¥175,000 per employee. For FY2018, based on the understanding that productivity is expected to be comparable to results thus far, a wage increase of ¥9,500 per month, made up of ¥2,500 base pay increase and ¥7,000 as a bonus for reduced overtime, has been achieved. Even though it took about 3 months for the idea to take shape in the minds of employees and for training, it was the understanding of the parent group and the leadership skills of the company president which encouraged employee participation and lead to the ultimate success of the initiative.



A "Thank You" card

Case 2-2-3 Saginoyuso Co., Ltd.

A company that has made work efficiencies by reviewing its operations and making changes to its facilities

Saginouso Co., Ltd. (employees: 40; capital: ¥10 million) is a Japanese inn and hot spring resort located in Yasugi City, Shimane Prefecture.

The company implemented a comprehensive service staff approach whereby one member of staff would take on the three roles of receptionist, waitress and cleaner. Such a diversified role as this led to a large increase in overtime especially when few people were at work and workload per person was high.

Managing Director Daisuke Tanabe felt the need to improve work efficiency at the company. Using his experience from a training course in business improvements in the service industry he set about turning around the way the business operated. Demonstrating his leadership skills, the managing director worked intensively with several key staff members for about 2 weeks.

Firstly, since the level of cleaning varied depending on the employee a manual for cleaning duties was created. In creating the manual, as well as taking videos of the cleaning work and analyzing them, Mr. Tanabe himself talked with the cleaning staff and pinpointed any room for improvements, incorporating points raised from this detailed research into the manual.

As a result of looking at the work duties Mr. Tanabe realized that an hour and a half every day was used to replenish the mini-bar and refill cold water pitchers in guest rooms. From this it was noticed that the mini-bar was being used less and less so the Japanese inn changed the mini-bar to a regular refrigerator (at a total investment of ¥700,000 for 20 fridges) and also replaced the cold water pitcher with bottles of water, thereby simplifying the work.

As a result of these improvements the company reduced overtime hours on average by around 30 minutes per person. Not only was it noticed that improvements in work came from employee's own suggestions but also it was felt that the suggestions encouraged a more positive atmosphere around the workplace. As a challenge for the future Mr. Tanabe says that, "We are working on creating a system that allows us to go through a sustained PDCA cycle without making just one-off work improvements."

Expensive capital investment is not always necessary, instead it can be said that this is a good example of improving productivity by taking a good look at the business, identifying problems and introducing the necessary facilities to deal with these issues.

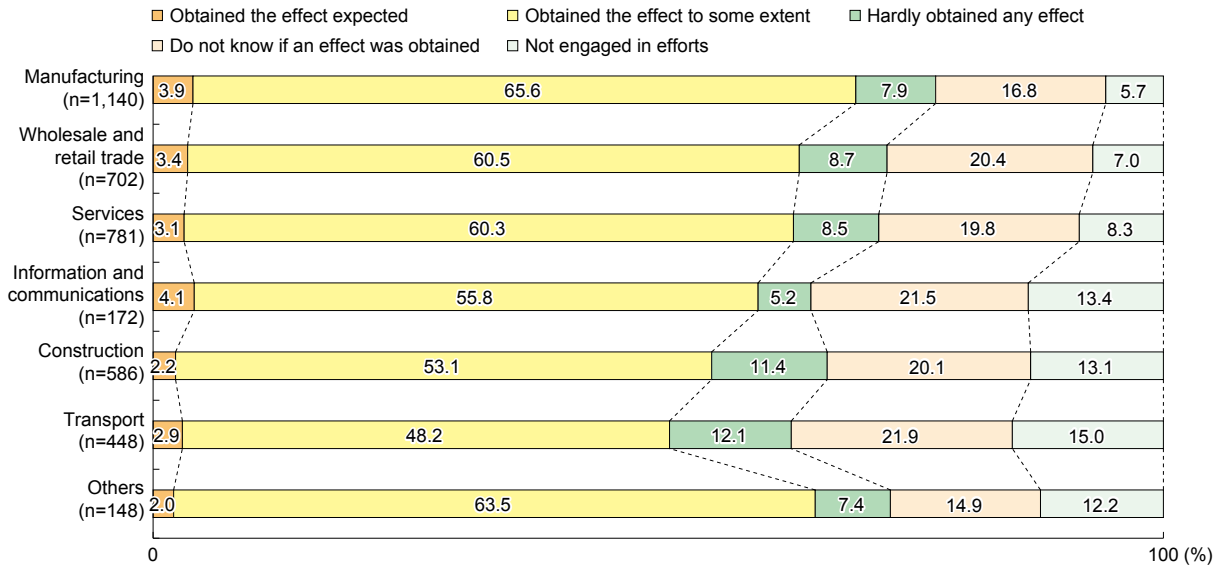
The mini-bar refrigerator before and after

Section 2 Effect of reviewing work processes

(1) Effect experienced from reviewing work process, as seen by industry type

Fig. 2-2-6 confirms the actual effect experienced on the labor shortage and productivity improvement after implementing a work review, as seen by industry type. Taking the total for responses of "obtained the effect expected" and "obtained the effect to some extent," we can see that regardless of the industry, more than half of the enterprises experienced an effect.

Fig. 2-2-6 Effect experienced on labor shortage and productivity improvement due to implementation of a work review, as seen by industry type

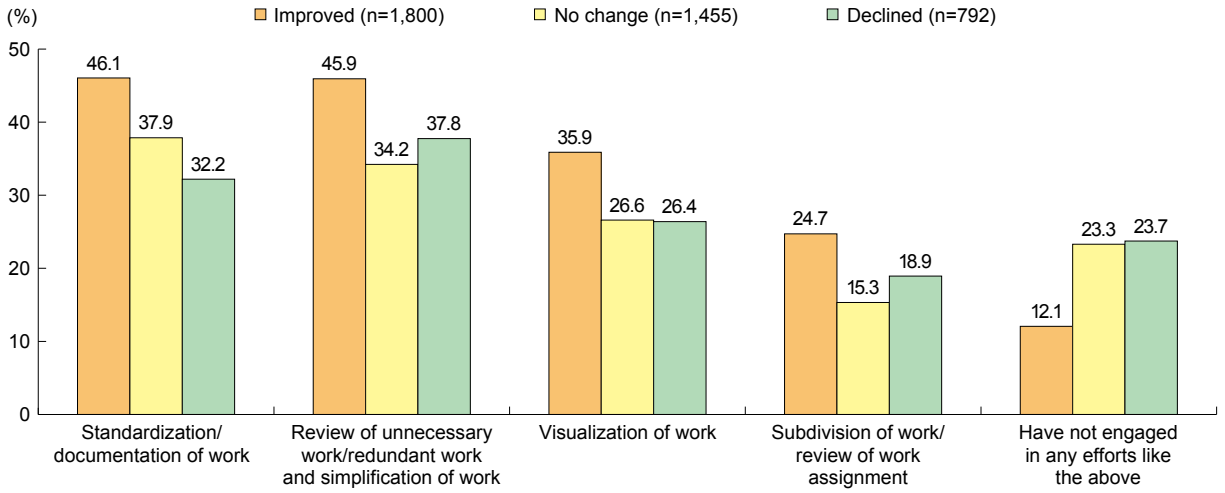


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Fig. 2-2-7 shows the content of work review efforts as seen by labor productivity compared to three years ago[2]. Looking at this, we find that among enterprises who responded labor productivity had "improved," the percentage of implementation is higher among all items of the efforts pertaining to the work review compared with the others. On the other hand, among enterprises that responded that labor productivity had "no change" or "declined," the percentage of implementation of various initiatives is generally lower than that of enterprises that replied "improved." Therefore, we can infer that undertaking a review of work has certain effects on improving labor productivity.

2) In the Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages*, enterprises which responded are confirming that, compared to three years ago, they consider their labor productivity applies to one of six categories which are: "significantly improved," "somewhat improved," "remains unchanged," "somewhat declined," "significantly declined," or "do not know."

Fig. 2-2-7 Contents of work review efforts, as seen by labor productivity compared to three years ago

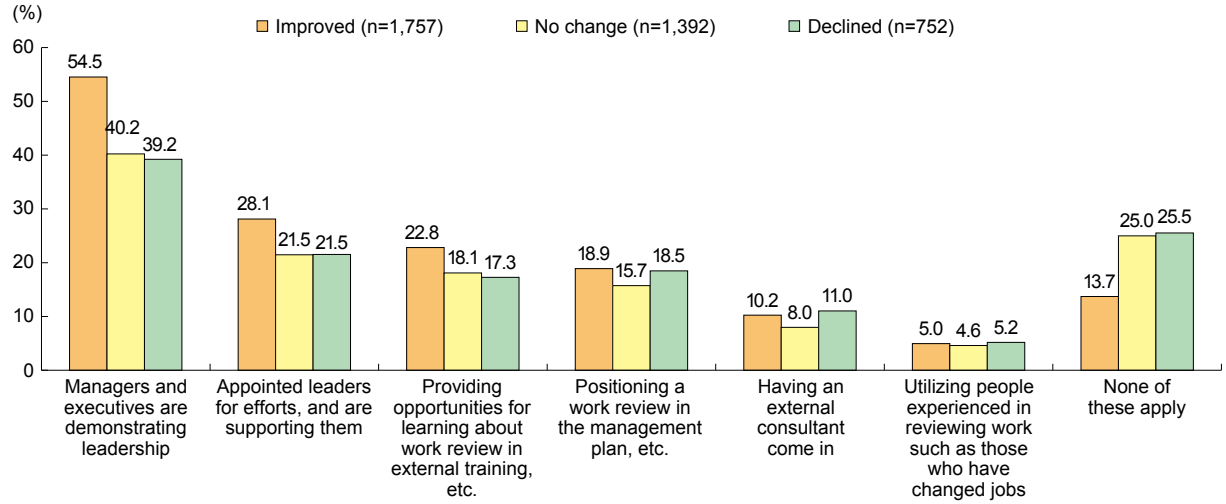


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. "I do not know" responses in regards to labor productivity compared to three years ago are not displayed.
3. In regards to labor productivity, responses of "significantly improved" and "somewhat improved" were combined as "improved," and responses of "somewhat declined" and "significantly declined" were combined as "declined."

(2) Differences in effects depending on the framework of efforts

Fig. 2-2-8 shows what kind of framework SMEs are using in their work review efforts, as seen by labor productivity compared to three years ago. Among firms with improved labor productivity, "managers and executives are demonstrating leadership" was the highest proportion of answers at 54.5%. We can infer that conducting a work review under the leadership of managers and executives will have a greater effect on improving labor productivity.

Fig. 2-2-8 Framework for work review efforts, as seen by labor productivity compared to three years ago

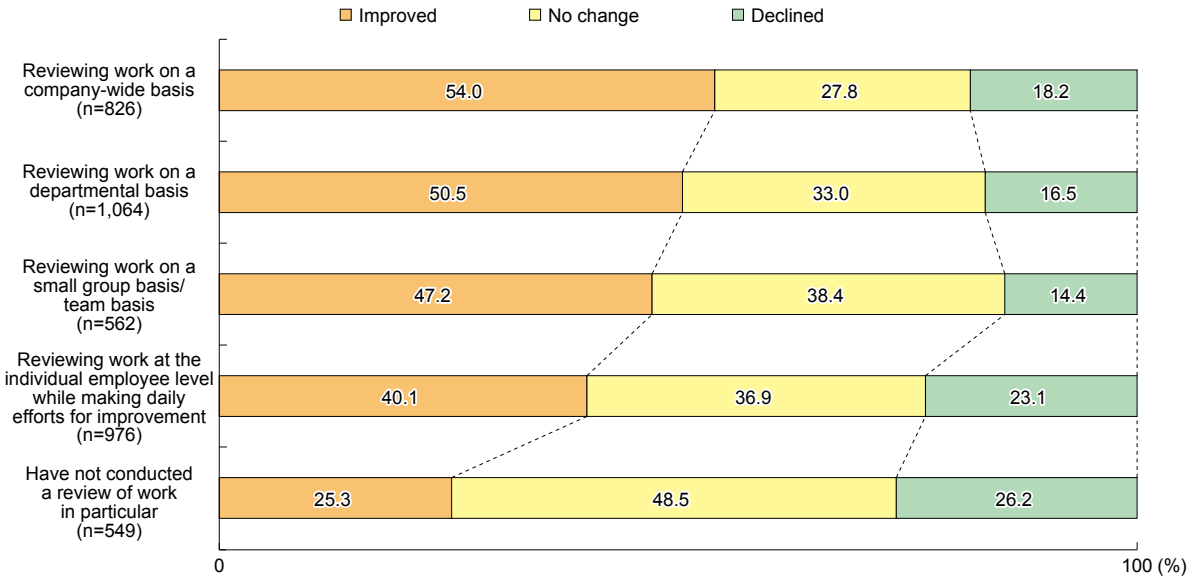


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. "I do not know" responses in regards to labor productivity compared to three years ago are not displayed.
3. In regards to labor productivity, responses of "significantly improved" and "somewhat improved" were combined as "improved," and responses of "somewhat declined" and "significantly declined" were combined as "declined."

(3) Relationship between basis of efforts for work review processes and change in labor productivity

Next, we will confirm the relationship between the basis of efforts in the work review and the change in labor productivity. Looking at Fig. 2-2-9, we can see that the percentage of firms that experienced an improvement in labor productivity compared to three years ago is highest for enterprises that are "reviewing work on a company-wide basis." On the other hand, among enterprises that "have not conducted a review of work in particular," the percentage of firms that answered that labor productivity improved was lower than other enterprises, and the percentage that answered that productivity had decreased was the highest. Therefore, we can infer that a work review contributes to improvement in labor productivity, and that the effect will be improved by conducting the review on a larger scale such as on a company-wide basis.

Fig. 2-2-9 Labor productivity compared to three years ago, as seen by basis of work review efforts



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes: 1. "I do not know" responses in regards to labor productivity compared to three years ago are not displayed.
2. In regards to labor productivity, responses of "significantly improved" and "somewhat improved" were combined as "improved," and responses of "somewhat declined" and "significantly declined" were combined as "declined."

Case 2-2-4 Sawada Precision Co., Ltd.

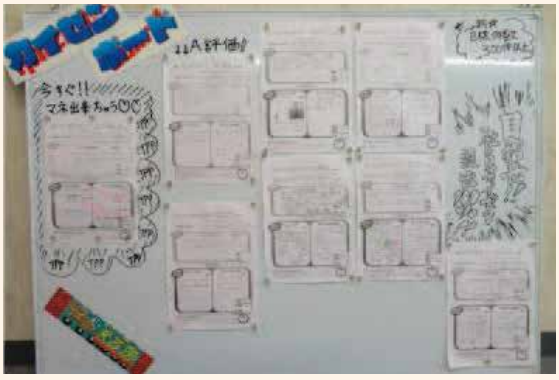
A company that has made efforts towards work efficiencies by taking on-board employee feedback and creating a system to build on improvements day by day

Sawada Precision Co., Ltd. (employees: 72; capital: ¥42.5 million) located in Himeji City, Hyogo Prefecture, is a company engaged in the design and manufacture of metal processing and various automatic machines, testing and inspection equipment.

When the current company president Hiroaki Sawada became a director seven years ago he sensed the continued problem of employees leaving their job at the company. On talking with employees, it was noted that they enjoyed the corporate culture at the company but many people were dissatisfied with the lack of holidays and too much overtime work. Therefore, in order to reduce employees' working hours, increase the number of paid holidays and reduce overtime to retain employees the company has taken action to actively listen to its employees thereby leading to improvements in its business. The company then implemented the 'kaizen card' whereby employees could write down their suggestions for improving the work process and working environment.

Hiroaki Sawada, President

As an example of these suggestions a handle on one of the operating machines is quite long and when turned comes into contact with the machine's attached cover. This means that the employee needs to reposition it and turn it each and every time. The employee thought that simply by cutting the length of the handle will make it operate more smoothly and thus save time, so he suggested this using a kaizen card. As a result 43.8 working hours over the course of one year have been saved. The company has steadily built up suggestions for improvement which have lead to work efficiencies such as this.



Some of the kaizen cards

All the kaizen cards are looked at by a committee made up of employees only. Management then gives a bonus to those employees whose suggestions were picked up on by the committee. Committee members are rotated on a regular basis which helps to improve awareness of the system among the employees. Employees are then always looking at ways they can improve the work process and working environment with more and better quality suggestions being proposed.

Members of the kaizen committee

As a result of these continued efforts work hours at the production site have been reduced. The number of annual holidays also increased from 90 days before the initiative to 105 days at present. Overtime hours are about half of what they were before the project which has lead to improved employee retention.

"Big improvements are being made in the work process and working environment with just a steady trickle of small daily improvements. We hope to continue like this moving forwards." says company president Mr. Sawada.

Case 2-2-5 TSK Corporation

A company which creates new added value inspired by business improvement activities

TSK Corporation (employees: 81; capital: ¥50 million) located in Toyama City, Toyama Prefecture, is an 80 year old business which has transformed itself from its beginnings as a paper sack manufacturer into the field of logistics to support its customers.

Company president Etsuro Takagi wanted to create a workplace where employees could think for themselves and take pleasure in their work but even though the company strengthened their top-down management approach in order to overcome the harsh business environment after the collapse of the IT bubble of around 2002, Mr. Takagi felt that employees had sunk into a tendency to always wait for instructions from above.

Consequently, work improvement activities began in 2004 with the aim of nurturing a self-starting work force which could think and act on its own initiative. Each employee was tasked with making 4 improvements in the work process and working environment per month resulting in over 2,000 improvements within the company over the course of one year. The content of these tasks was geared more towards quantity rather than quality at first. For example, something as small as picking up some rubbish counted as one task but from there the idea of forming habits to improve their work such as "Do you need a bin to put that rubbish in?", took hold among the employees. Additionally, twice a month the company president rewards employees who make the best suggestions resulting in added value or reduced working hours with a cash bonus which helps to boost motivation among the work force. Even now, 14 years since the initiative first began; as many as 2,800 suggestions are being put forward each year.

Etsuro Takagi, President

An improvement system such as this also leads to the creation of new added value. Previously when an employee suggested an online shop, Mr. Takagi didn't think the idea would take off. However, as a result of the company's principle to carry out suggestions right away the online shop is now bringing in sales of ¥250 million. As a result of reducing working hours and work space at the sack production site it has become possible to work on new related businesses leading to an increase in sales.

"I feel that these suggestions for improvement have helped to facilitate communication among employees while also adding value to the company, and in this way the company has been revitalized." says President Takagi. By continuing its business improvement activities the company will continue to secure and nurture talented individuals who can think and act for themselves.

A bonus reward ceremony

Section 3 Relationship between review of work processes and other efforts

As we saw in the previous section, a work review leads to an increase in work efficiency even when conducted independently, which is then likely to generate an improvement in productivity. This could be considered an important measure as a precondition for other efforts to improve productivity such as the introduction of IT and adoption of equipment.

For example, visualizing the work flow enables bottlenecks in the enterprise's work flow to be clarified. Introducing IT and adopting equipment to solve those bottlenecks can promote further improvements in productivity. In addition, as we will confirm in the next chapter, standardization/documentation of work and visualization of employee skills are effective measures for promoting multi-skill development and concurrent posting initiatives.

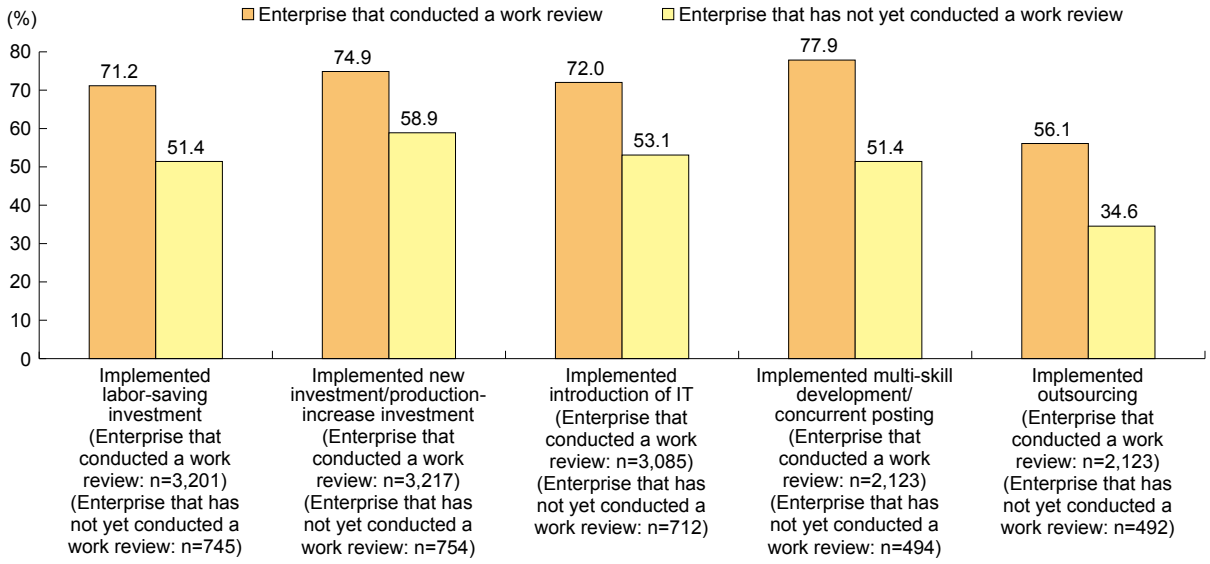
Therefore, in this section, we will analyze the relationship between the work review and other efforts that contribute to improvement in productivity.

(1) Implementation status of work process review and other initiatives

Fig. 2-2-10 shows the rate of implementation of capital investment (new investment/production-increase investment as well as labor-saving investment), introduction of IT, multi-skill development/concurrent posting as well as outsourcing (hereafter referred to in this section as "other productivity improvement measures"), depending on whether or not a work review is being undertaken at the SME.

For each of these initiatives, we can see that enterprises conducting work reviews have higher implementation rates. We can presume that there are many SMEs conducting work reviews as a prerequisite for advancing other productivity improvement measures.

Fig. 2-2-10 Implementation rate of other productivity improvement measures, as seen by whether or not a work review was conducted



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

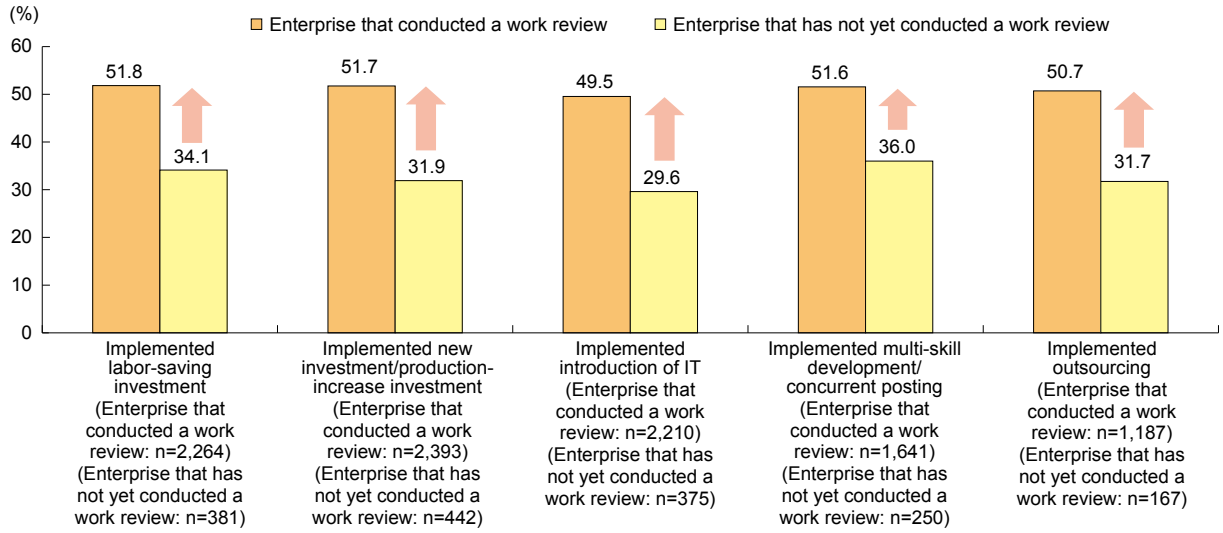
Notes:
1. Those who implemented "labor-saving investment" as well as "new investment/production-increase investment" refers to enterprises who made "proactive investment" or "passive investment" over the past three years.
2. Those who implemented the introduction of IT refers to enterprises who answered "introduced IT" for "comprehensive evaluation of the entire enterprise" on the questionnaire.
3. Those who implemented "multi-skill development" as well as "outsourcing" refers to enterprises who responded with "significant shortage" or "moderate shortage" about an excess or shortage of labor, as well as an enterprise who answered "shortage of labor personnel" or "shortage of both labor personnel/core personnel" and also answered in regards to their respective initiatives that they are "engaging in efforts, and actively working on them" or "engaging in efforts, but not actively working on them."
4. "Enterprise that conducted a work review" refers to enterprises who implemented at least one of the following: "visualization of work," "review of unnecessary work/redundant work or simplification of work," "standardization/ documentation of work," and "subdivision of work/review of work assignment."

(2) Effects of implementing work process review and other productivity improvement measures

In Fig. 2-2-10 above, we confirmed the implementation status of the work review and other productivity improvement measures. Next, in order to determine the effect of improved labor productivity by engaging in work reviews in conjunction with other productivity improvement measures, we confirmed the percentage of enterprises that implemented other productivity improvement measures and answered that labor productivity improved, as seen by whether or not a work review was implemented (Fig. 2-2-11).

For each of these initiatives, we can see that enterprises implementing initiatives in conjunction with a work review comprise a higher proportion of enterprises that have improved their labor productivity, compared to enterprises that are only implementing said initiatives. We will analyze other productivity improvement measures in detail from the next chapter, but we can conclude that conducting a work review is instrumental to improving labor productivity through those initiatives.

Fig. 2-2-11 Percentage of enterprises whose labor productivity has improved by other productivity improvement measures, as seen by whether or not a work review was implemented



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4. "Enterprise that conducted a work review" refers to enterprises who implemented at least one of the following: "visualization of work," "review of unnecessary work/redundant work or simplification of work," "standardization/ documentation of work," and "subdivision of work/review of work assignment."
5. An enterprise with improved labor productivity refers to those who answered "significantly improved" or "somewhat improved" about their labor productivity compared to three years ago.

Case 2-2-6 Houyu Co., Ltd.

A company that has improved productivity by visualization of its operations and implemented IT solutions

Houyu Co., Ltd. (employees: 17; capital: ¥3 million) located in Nagareyama City, Chiba Prefecture, is a business which manufacturers plastic products. The company makes food containers, cosmetic displays, and automobile parts, etc. with the motto of responding quickly to customer needs and providing high quality plastic parts.

After the financial crisis precipitated by the bankruptcy of the Lehman Brothers the company's sales halved and it amassed heavy debts. When profits were not forthcoming and the situation looked bleak the company was introduced to Mr. Yuichi Hosono, an SME management consultant, by the company president of one of their clients in 2015.

Keiji Takada, President

Company president Mr. Keiji Takada and Mr. Hosono talked about the situation and felt that the company was not making a profit because the operating capacity of the factory was low and as a result much of the work had to be outsourced. As a result of looking at the company's 24 hour work operations during the night, it became clear that machine setup times varied depending on the worker and in addition machines stopped working altogether during changeovers, leading to operational losses. Another factor was the rough production schedule. Machines were thought to be in operational use over 90% of the time before the investigation was conducted but in fact it turned out to be just 60%.

Setting up one of the machines

Therefore, in order to measure and gather data on machine operations at any given time, a new production management system utilizing IoT was introduced. More specifically, an IoT kit with IC card reader and current sensor on a small single board computer was used. This made it possible to check the setup time and operation time of an injection molding machine on a cloud type database. The cost of introducing this system was about ¥1.1 million (about ¥790,000 came from manufacturing subsidies), with the system development period taking about one and a half months.

The small single board computer, IC card reader and current sensor used by the company

Following on from this, under the leadership of the company president, the importance of involving employees in efforts towards improving the business was made clear to everyone. For more efficient machine setup the PDCA cycle was implemented to increase operational machine time with employees taking steps to improve their skills.

As a result, the production schedule was refined and machine setup was made more efficient. Operational machine time rose from about 60% to 80%, while outsourcing expenses fell from about 9% to 4%, leading to a 3.9% increase in profits. Financially the business improved year on year achieving increases both in sales and profits for four consecutive financial years since 2015, and at the end of January 2018 the debts were finally repaid.

Furthermore, due to the improved work efficiencies it became possible to have talks on project proposals which have contributed to a boost in profits. "We will continue to make improvements in our work and we want to add more value to our work such as through our involvement in the upper processes of product design, etc." says President Takada.

Case 2-2-7 Synthemec Co., Ltd.

A company that has improved productivity by investing in equipment as a result of reviewing the production process

Synthemec Co., Ltd. (employees: 55; capital: ¥30 million) located in Ishikari City, Hokkaido, is a machine manufacturing company founded in 1950. With their motto of "We synthesize mechanism," Synthemec has gained a good reputation as a one-stop-shop for custom-made machines produced in-house from start to finish at low cost for everything from initial concept through to parts production, assembly, installation and aftercare.

Against the backdrop of a decreasing birthrate and aging population the company has suffered from the image that working conditions are not good within the manufacturing industry and there has been a continued lack of manpower.

Under these circumstances the company reviewed its production processes once again, and participated in the 2014 Nadeshiko Manufacturing Support Project aimed at promoting women within the manufacturing industry. To standardize work processes in the business the company needed to introduce the necessary equipment and simplify the whole process. For example, the company built machines to semi-automatically carry out measuring work which used to be carried out manually thereby making it possible for workers with no machining experience to carry out the work. Because of this people who had little experience in the manufacturing industry were now able to work on the manufacturing floor.

Takeshi Fukawa, President (left) and Eiji Matsumoto, Chairman (right)

In addition, the company looked outside the engineering industry to people with no engineering experience to overcome the industry's image by advertising that non-engineers were working in the company and non-experienced workers were welcome. As a result, in the spring of 2015 the company succeeded in hiring two women with no industry experience. Because of that the company became recognized as a company where many women worked which has lead to the continued employment of women and helped to reduce labor shortages.


A female employee at work

The end result is that work which used to be carried out by full-time specialist engineers is now taken care of by less experienced employees. Along with this turn to mechanization and automated work specialist engineers are now able to focus on work roles that only they could do, leading to a higher rate of productivity.

"Reassessment of the production process has lead to capital investment which has greatly improved productivity. We hope to continue in this way moving forwards." says the Chairman Mr. Eiji Matsumoto.

Section 4 Summary

In this second chapter, we covered an overview of the "review of work processes" among SMEs. In order to improve labor productivity under the labor shortage, it is important to review current work and improve work efficiency, and in this chapter we analyzed the current status of work review efforts among SMEs and their effect using the questionnaire survey.

More than 80% of enterprises are implementing work review efforts, though there are differences in the basis of these efforts, and as the scale of employees increases, we found that work reviews are being conducted on a greater basis within enterprises. Moreover, "labor shortage" is heavily cited as the reason for conducting a work review, which underscores the importance of a work review to improve operational efficiency under such circumstances.

As for the issues involved in conducting a work review, although there were many responses of "unable to allot time," we could see that over half of the enterprises in each industry that actually engaged in a work review experienced an effect towards the labor shortage and productivity improvement. In addition, we found that among enterprises which experienced improvement in labor productivity, management and executives tended to exercise leadership and engage in the work review. For managers, demonstrating leadership and proceeding with a work review even when there is little time available will generally lead to improvements in productivity.

As we confirmed the effect of improved productivity by implementing other productivity improvement measures together with a work review, we could see that enterprises implementing initiatives in conjunction with a work review comprise a higher proportion of enterprises that have improved their labor productivity, compared to enterprises that are only implementing said initiatives. Conducting a work review is instrumental to improving labor productivity through other efforts.

Chapter 3

Increasing labor productivity through devices on the personnel side

Chapter 2 looked at the state of operational reform initiatives at SMEs and analyzed the relationship between operational reform and increased labor productivity in other labor productivity enhancement measures. This chapter will analyze initiatives related to the use of personnel, who are the motive power of business activities. Section 1 analyzes initiatives for the multi-skill development and concurrent posting of employees; Section 2 analyzes the state of outsourcing initiatives, which could increase operational efficiency by using external resources; and Section 3 analyzes the state of personnel development initiatives.

Section 1 Multi-skill development and concurrent posting initiatives

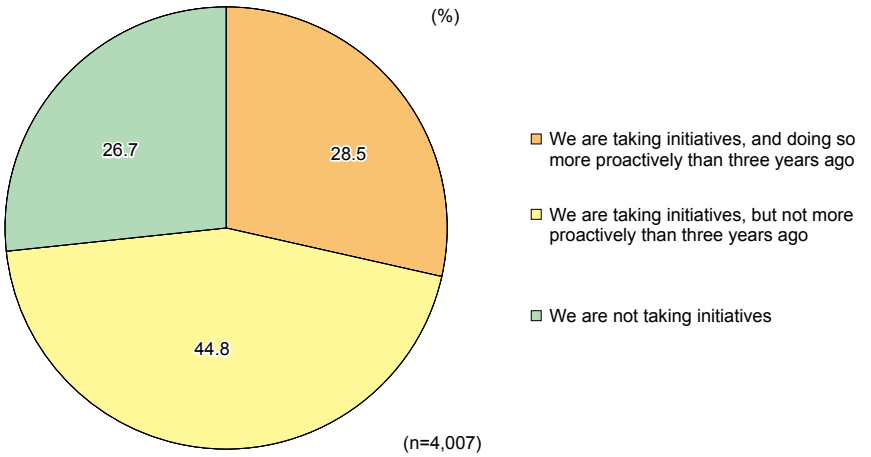
This section analyzes multi-skill development and concurrent posting initiatives at SMEs. Multi-skill development and concurrent posting initiatives are effective ways to deal with labor shortages at SMEs, where hiring challenges make it difficult to increase the number of employees. Multi-skill development and concurrent posting enable SMEs to shift their labor force to departments or processes that are exceptionally busy. These practices are likely to help level out the work volume and increase operational efficiency. Thus, *a Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (below, "Questionnaire Survey") was used to determine the state of initiatives at SMEs and clarify the current state and effectiveness of those initiatives.

1. Current state of multi-skill development and concurrent posting initiatives

(1) State of multi-skill development and concurrent posting initiatives at SMEs

The state of employee multi-skill development and concurrent posting initiatives at SMEs was found to be as shown in Fig. 2-3-1. The figure indicates that 73.3% of respondents were taking multi-skill development and concurrent posting initiatives, and that 28.5% of the total were doing so more proactively than three years earlier.

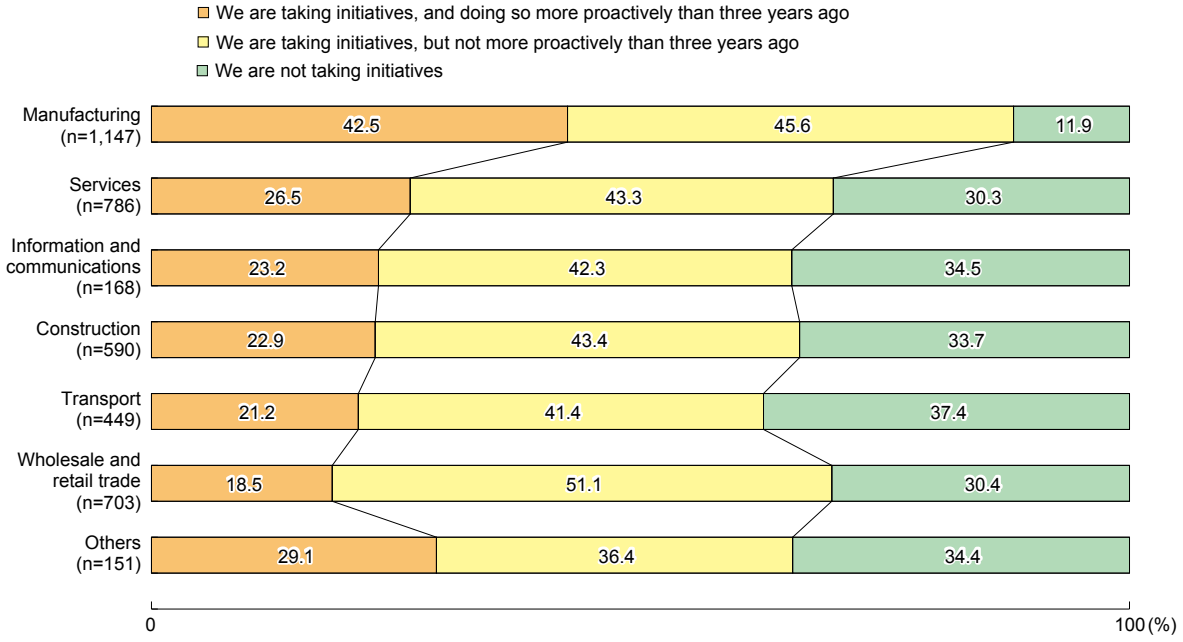
Fig. 2-3-1 State of employee multi-skill development and concurrent posting initiatives at SMEs



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Fig. 2-3-2 shows the state of employee multi-skill development and concurrent posting initiatives, by industry sector. Like Fig. 2-1-1 shown earlier, such initiatives are fairly advanced in the construction and services industries, where there is a strong sense of a labor shortage, but these industries are not being as proactive as manufacturing, so there is still room for more multi-skill development and concurrent posting initiatives.

Fig. 2-3-2 State of employee multi-skill development and concurrent posting initiatives, by industry sector



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

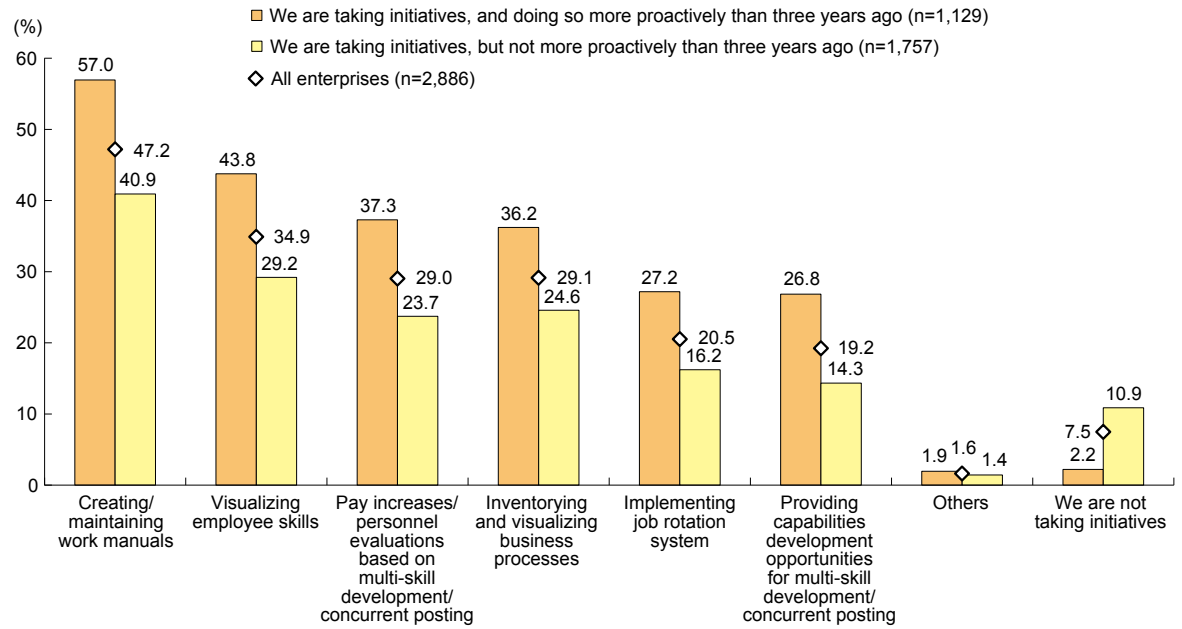
(2) Establishing an environment for promoting multi-skill development and concurrent posting

Fig. 2-3-3 shows what other initiatives were being taken along with employee multi-skill development and concurrent posting. Breaking it down, the ratios of respondents saying "Creating/maintaining work manuals" and "Visualizing employee skills" were particularly high. The role of "Creating/maintaining work manuals" would appear to be to establish a learning environment when giving an employee new duties that he/she does not currently perform. The initiative "Visualizing employee skills" is thought to be necessary to help employees visualize and understand the skills they currently have, enabling employees to confirm the capabilities they have and decide what capabilities they need to learn going forward.

Enterprises that answered, "We are taking [multi-skill development and concurrent posting] initiatives, and doing so more proactively than three years ago" were conducting each of the listed initiatives at a higher rate than those that answered, "We are taking initiatives, but not more proactively than three years ago."

This shows that a high percentage of those enterprises promoting multi-skill development and concurrent posting are simultaneously taking operational reform initiatives analyzed in Chapter 2, such as "Creating/maintaining work manuals" and "Visualizing employee skills."

Fig. 2-3-3 Other initiatives also being taken, by state of multi-skill development and concurrent posting initiatives



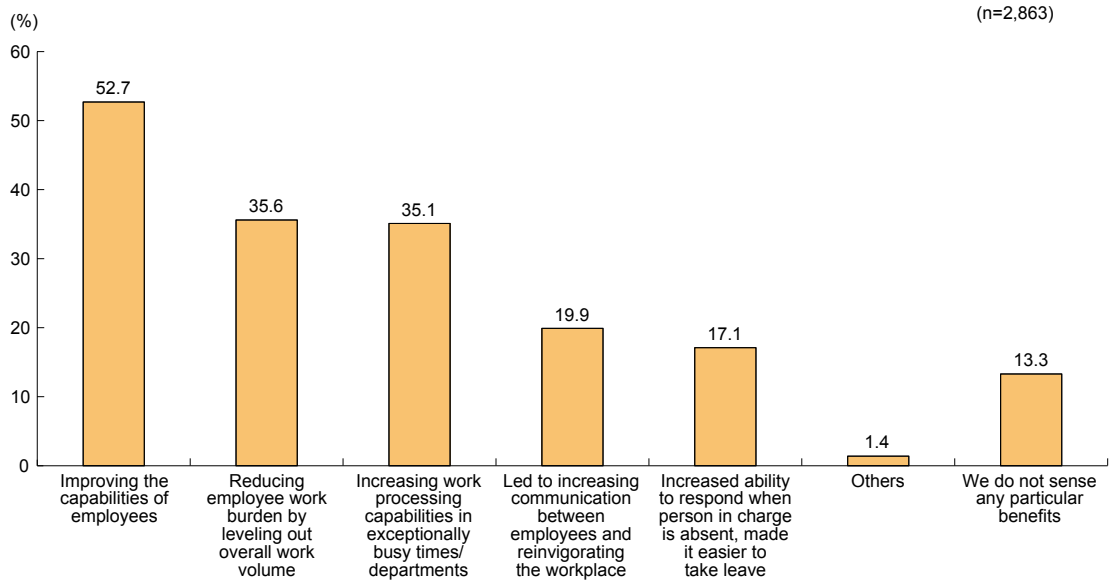
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

2. Effectiveness of multi-skill development and concurrent posting

(1) Benefits of employee multi-skill development and concurrent posting

This part analyzes the benefits derived from multi-skill development and concurrent posting of employees (Fig. 2-3-4). Many respondents felt there was the benefit of "Increasing employee capabilities," while 35.6% mentioned a "Reduction of the burden on employees by leveling out overall work volume" and 35.1% pointed to "Increasing work processing capabilities in exceptionally busy times/departments." Multi-skill development and concurrent posting would appear to level out the work volume by giving some of the duties to other employees that are otherwise concentrated on certain departments and employees, thus reducing the burden on employees under a heavy work burden. At exceptionally busy times or in exceptionally busy departments, increasing personnel from other departments to give support appears to increase processing capabilities.

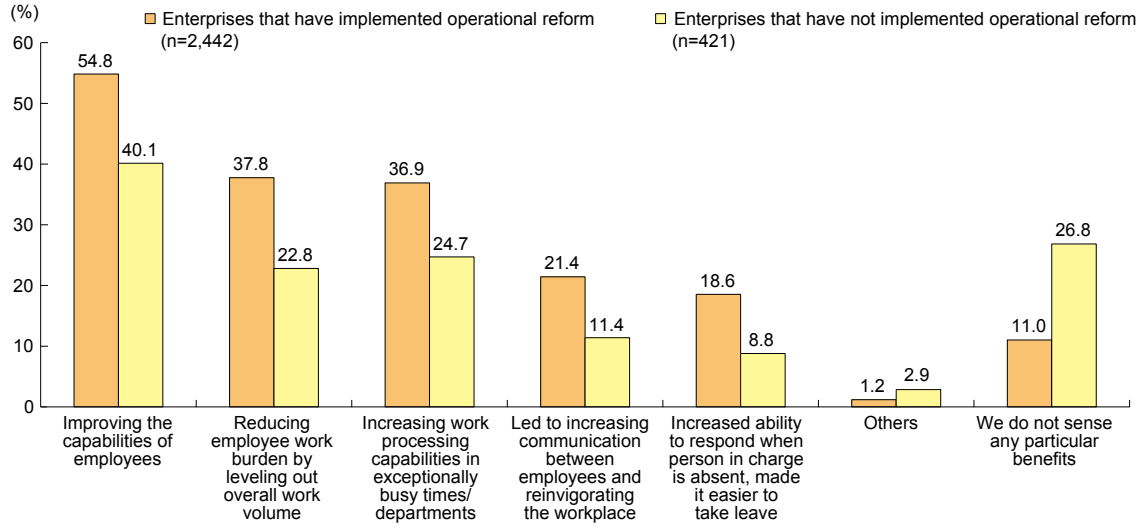
Fig. 2-3-4 Benefits derived from multi-skill development and concurrent posting of employees



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Fig. 2-3-5 shows the benefits sensed from taking multi-skill development and concurrent posting initiatives, based on whether or not the enterprise had conducted operational reforms as mentioned in Chapter 2. It shows that a high percentage of enterprises that had conducted operational reforms had sensed the various benefits of multi-skill development and concurrent posting. On the other hand, a high percentage of enterprises that had not conducted operational reforms responded that "We do not sense any particular benefits."

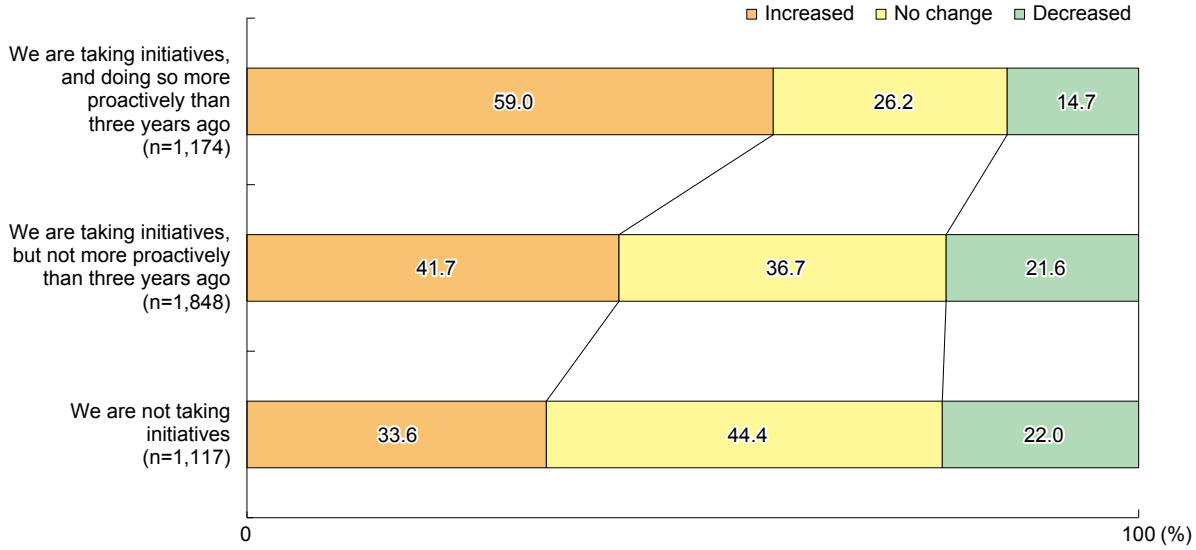
Fig. 2-3-5 Benefits derived from multi-skill development and concurrent posting of employees, based on whether or not the enterprise had conducted operational reforms



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. "Enterprises that have implemented operational reform" are respondents who answered with at least one of the following: "Visualizing work," "Reforming unnecessary/redundant business processes or simplifying business processes," "Standardizing or writing manuals for business processes," and "Subdividing business processes or reforming assignment of business processes."

Next, we check what impact multi-skill development and concurrent posting initiatives have on labor productivity at SMEs. Fig. 2-3-6 analyzes changes in labor productivity compared to three years earlier at each enterprise, based on the state of multi-skill development and concurrent posting initiatives. Of the enterprises that answered, "We are taking [multi-skill development and concurrent posting] initiatives, and doing so more proactively than three years ago," 59.0% sensed that labor productivity had increased. On the other hand, of the enterprises that answered, "We are not taking [multi-skill development and concurrent posting] initiatives," only 33.6% responded that labor productivity had increased. One cannot make a sweeping conclusion that multi-skill development and concurrent posting initiatives are the only reason labor productivity rises, but there appears to be a correlation.

Fig. 2-3-6 Labor productivity compared to three years earlier, based on state of multi-skill development and concurrent posting initiatives



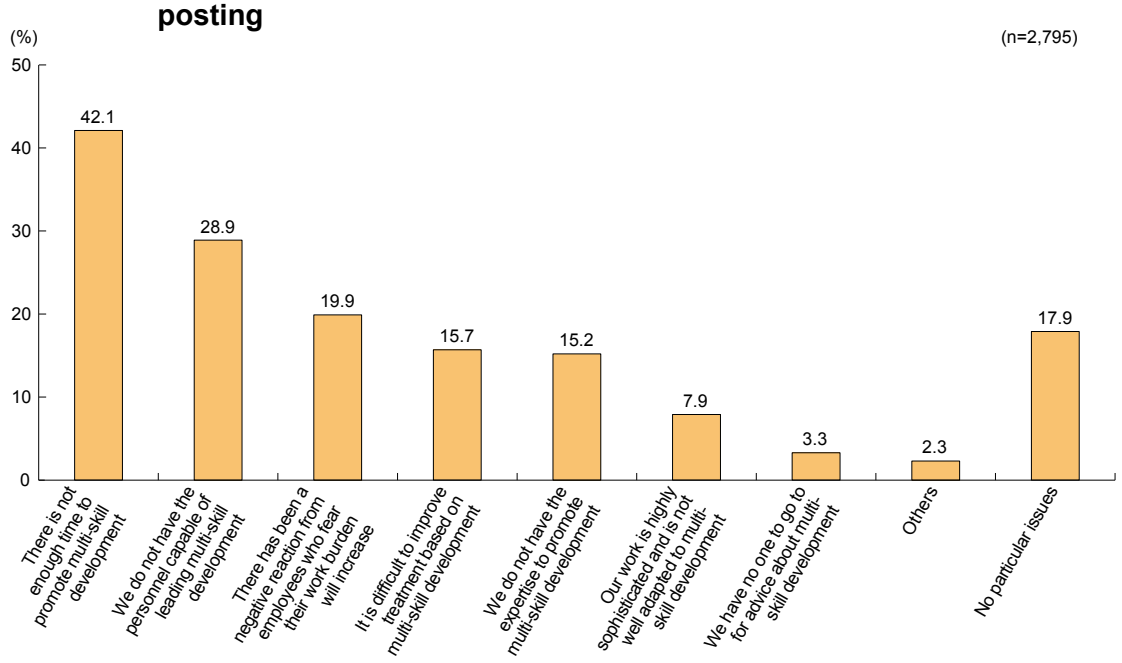
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes: 1. Totals exclude respondents that answered "Don't know" concerning labor productivity compared to three years earlier.
2. The "Increased" total includes respondents that said labor productivity had "Significantly increased" or "Somewhat increased," while the "Decreased" total includes those that said it had "Significantly decreased" or "Somewhat decreased."

(2) Issues with multi-skill development and concurrent posting

Fig. 2-3-7 shows issues that occur with employee multi-skill development and concurrent posting. It shows that there are multiple issues with multi-skill development and concurrent posting initiatives, such as "There is not enough time to promote multi-skill development," "We do not have the personnel capable of leading multi-skill development," and "There has been a negative reaction from employees who fear their work burden will increase."

Fig. 2-3-7 Issues that occur with employee multi-skill development and concurrent posting

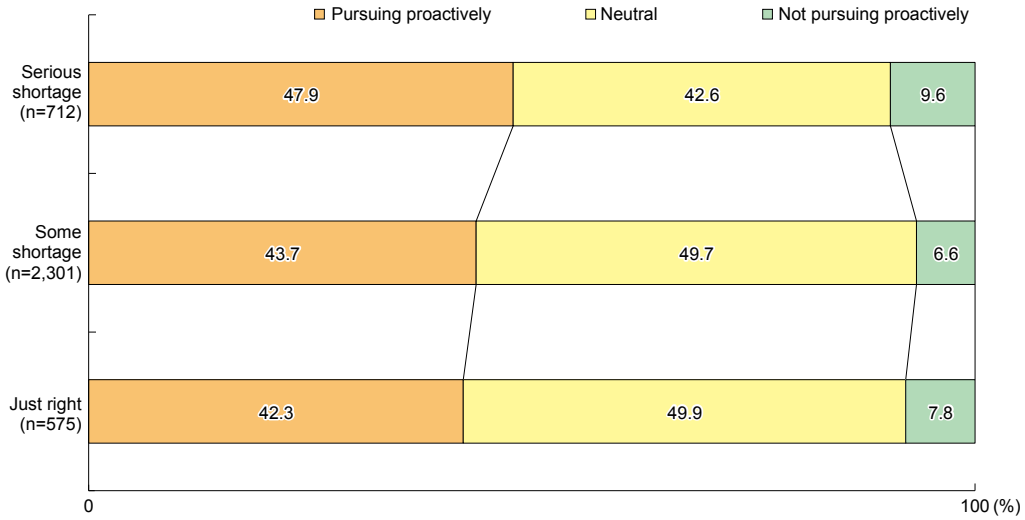


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

(3) Policies going forward concerning multi-skill development and concurrent posting

Fig. 2-3-8 shows enterprises' policies going forward concerning multi-skill development and concurrent posting, based on the enterprises' sense of a labor shortage. The stronger the sense of a labor shortage, the higher the percentage of enterprises with a policy of proactively pursuing multi-skill development and concurrent posting initiatives. It appears that enterprises are using employee multi-skill development and concurrent posting to increase operational efficiency, etc., to deal with their labor shortage.

Fig. 2-3-8 Policies going forward concerning multi-skill development and concurrent posting, based on enterprises' sense of a labor shortage



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. The item "Surplus" concerning enterprises' sense of a labor shortage is not shown.
2. Totals exclude respondents that answered "Don't know" concerning their policies on multi-skill development and concurrent posting initiatives going forward.

Case 2-3-1 Sakanishi Seiki Co., Ltd.

A company which uses employee skill maps to optimizes its worker allocations, developing versatile workers

Sakanishi Seiki Co., Ltd. (employees: 91; capital: ¥50 million), located in Hachioji City, Tokyo, manufactures reduction gears from combinations of gears, and machines and assembles all kinds of precision components.

Previously, the company left it to people in the workplace to keep track of each employee's skills, so the company's managers were not fully aware of what levels of skills the employees had. That led to skill imbalances between departments as, for example, some departments became concentrations of highly-skilled workers, while others became clusters of less-experienced workers. To improve on that situation, the company prepared skill maps of all employees, so that managers had a grasp of employee skills, and could optimize worker allocations and standardize skills.

For example, the manufacturing division sets all kinds of work, such as "reading drawings," "NC and lathe operation," "product measurement," and "fault handling," as skill items. Skill levels are graded on a five-point scale, starting from 1 for "Has never engaged in this work" to 5 for "Able to provide instruction." Skill assessments are determined by consensus between employees and section managers through interviews.

The skill maps are purely used as communication tools between managers and employees, and are unconnected to personnel reviews. Workers who rise in their skill ratings will be commended by their managers, and then work together with them to set their next goals. The company says this process leads to higher motivation among employees.

Hiroyuki Sakanishi, President

Visualization of employee skills lets the company keep track of how many highly skilled workers and workers unfamiliar with skills there are in each department, enabling optimum worker allocation and division of roles. To prevent uneven levels of ability among employees, those who have reached a certain level of proficiency on the skill map are moved to other departments, based on the worker's own wishes. As a result, the company has more versatile employees, so personnel can be sent from other departments to help out in a department that is very busy.

While having each employee focus on a certain task to develop specialization is thought to lead to them delivering high productivity, this company does not think that way. President Hiroyuki Sakanishi says "Giving someone a task they are unfamiliar with has the disadvantage of causing a temporary dip in productivity, but if you're thinking of the future, it's important to do so. In fact, we see a great benefit in making employees more versatile, because even if the usual person responsible for a job is unavailable, another employee can cover for them, to maintain the same level of productivity. We want to keep using the same approach in future."

Gear products machined and assembled by the company

Case 2-3-2 Environmental Technical Co., Ltd.

A company which uses the creation of employee skill maps as the starting point for making employees more versatile, leveling out overall work levels to raise productivity

Environmental Technical Co., Ltd. (employees: 82; capital: ¥50 million), located in Takasaki City, Gunma Prefecture, is an environmental survey company which analyzes the composition of air, water, and soil, tests foods for foreign bodies and agrochemical residues, performs environmental assessment surveys, and the like. Because the inspections and survey content handled by the company are diverse and wide-ranging, it used to have intricately divided departments and job roles, and when the orders received were skewed towards a certain field, the work was concentrated on the departments and personnel in charge, leading to broad discrepancies between employees in their amounts of overtime.

To overcome that situation, a top-down initiative by President Tatsuzo Yoshihama started the company's push for skill versatility with organizational reform and the creation of employee skill maps. The first step was to break down the barriers between the intricately-divided departments for various surveys and tests etc., and integrate them into the "Analysis Center," to build an environment in which people could move flexibly between jobs within the Center. At the same time, the qualifications, skills, expertise, etc. of all employees were inventoried, and graded on three levels by their department managers, according to their proficiency levels. The grades were tabulated as skill maps. This process gave the management side a grasp of employee skills they had not previously recognized.

At the start of this effort, there was a temporary increase in overtime for around four months, partly due to unfamiliarity with the new system, but after that, the system started to function, so that when orders increased for a particular type of work, department managers used the skill maps to flexibly reassign workers. Versatility, in which workers took on multiple roles, took root in place of division of roles, so the problem of workloads concentrating on certain employees disappeared, and the annual average overtime per worker fell from around 1,500 hours in FY2015 to around 1,400 hours in FY2016. The reduction in overtime pay was recycled back into salary and bonuses, to maintain employee motivation. Proficiency levels in skill maps are also reflected in personnel reviews, so employees are keen to use the time freed up by reduced overtime to learn skills and knowledge. The company expects that to lead to further productivity gains in future. It is also possible to take orders for surveys and tests that the company would have had to refuse if the person in charge of them was too busy, so the system also leads to increased sales.

President Yoshihama says "It's simpler to assign each job to only those people who can already do it, but we needed a system that allows flexible rotation of personnel, in order to level out workloads. Even if it's a burden in the short term, it's important to build systems with the future in mind."

Aerial view of the company

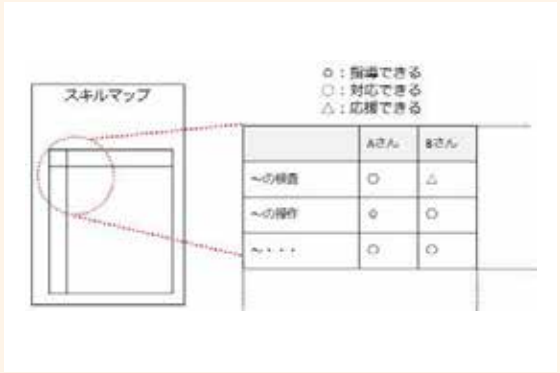


Illustration of a skill map (example)

Case 2-3-3 Yamaki Butsudan Co., Ltd.

A company which developed its learning environment by preparing work manuals, and raised productivity by making employees more versatile

Yamaki Butsudan (employees: 35; capital: ¥36 million), located in Shizuoka City, Shizuoka Prefecture, manufactures and sells *butsudan* (Buddhist family altars) and related articles, refurbishes and repairs *butsudan*, and sells gravestones and related landscaping items. It has a chain of six stores in the prefecture.

With the *butsudan* market shrinking, President Hidehiro Asano was pondering ways to raise customer satisfaction and build sales. He reached the conclusion that "Customers who come to buy *butsudan* are people with strong family values. If our employees are to empathize with those customers, and offer them good suggestions, they must also be people who value their families and have ample family time."

Acting on that realization, he took a top-down initiative in 2008 to set rules restricting overtime to 10 hours per month and mandating employees to take at least 90% of their paid leave entitlement. The implementation of these rules caused some difficulties. Problems arose because the company's stores each operated on a four-person staff, consisting of a store manager, a marketing person, a sales person, and a cashier, and those roles were basically vertically divided. There was no support system between employees, so if a customer came in during the lunch hour, the sales person would have to interrupt lunch to serve them. The situation did not allow people to take leave. In response, the company started building a system to make employees versatile, so they could support each other in their duties. As a preliminary stage before starting on the system, the company held hearings with all employees to identify places where work methods could be improved. In a short time, the introduction of IT systems to facilitate work, such as changing to touch-panel cash registers and using hand terminals for stock control, made it possible to handle various duties.

Once efficiency had been improved with such measures, a manual was prepared, to cover all duties. The scope of the manual covered the whole range of tasks, from knowledge of butsudan and Buddhist services through customer service examples, operation of gravestone design software, estimate preparation, cash register operation, to storage locations for office supplies. It also presents work flowcharts illustrating diverse cases, based on points which have confused employees in real working situations. All employees are to fully master the content of the manual within three months of joining the company, and they are trained to be able to perform all tasks, including cash register operation, sales, accounting, and design.

Hidehiro Asano, President

These efforts have made sure that all employees are capable of handling all work tasks, resulting in reduced overtime and making it easier for employees to take leave. Making employees versatile has enabled them to offer opinions about each other's jobs, like "isn't it inefficient to do it like that?," or "wouldn't it be more efficient to do it this way?" Such suggestions accelerate work improvements.

Employees can also use the time that has been freed up to create new added value, and they are certainly better able to raise quality levels and make proposals to customers (suggestions of new products and services, etc.). President Asano says "Better working efficiency from our measures for versatility also leads to higher added value." The company aims to keep on using similar measures for ongoing improvements in working efficiency and added value.

The work manual prepared by the company

Case 2-3-4 K.K. Grandia Housen

A company which achieved versatility by dispelling fixed ideas and reconsidering work, to raise its productivity

Grandia Housen (employees: 116; capital: ¥10 million), located in Awara City, Fukui Prefecture, is an onsen (hot spring) inn founded in the Awara hot spring region in 1963.

Quick to adapt to the shift in the main composition of its guests, from groups to individuals, it gained popularity by building guest rooms with private outdoor spa baths in formal gardens, which were unusual in 2001. The company's booming business left employees unable to take time off in busy seasons, and in the summer peak in particular, it was common for employee to want to quit. Managing Director Kenji Yamaguchi, who had previously worked in a bank before joining the family business, strongly felt the need for reform, thinking "There is no future if we keep on working as we have done so far."

Therefore, at the end of 2015, he started measures to reduce the workload on employees through enhanced working efficiency, while also raising customer satisfaction. The first step was to set aside fixed ideas about work that had previously been seen as necessary, and reconsider it. For example, dinner used to be served in two sittings, with guests assigned to start eating either at 5:30pm or 7:30pm, with seat assignments decided in advance and places set out accordingly. That method was abolished in favor of a system that allows guests to come to eat when they like. Under the old system, employees had to prepare for two hours before the start of dinner, but after the change, they only need to arrive 30 minutes before opening time. The company had thought that the two-sitting arrangement was necessary to avoid overcrowding, but when it tried changing the system, there were surprisingly few problems. The guests were better satisfied, because they could eat whenever they felt like it.

Seeing that working efficiency had risen, Managing Director Yamaguchi started working on a transition from a division of labor system to employee versatility, with the aim of establishing a system to give two full days off per week. His effort was hindered by the fact that there were different wage systems for hosting and non-hosting employees. An industry-specific commission structure called the "service charge system" applied to hosting employees, and that was a factor in the focus on serving group guests. He acted to abolish the system and replace it with a unified wage system for all employees.

Kenji Yamaguchi, Managing Director

As this action was in progress, there were some complaints like "But I doing it for the guests," "Was everything I've done so far for nothing," and comments like "I'm happy to get a pay rise, but I'm not comfortable with taking on new jobs." On every occasion, Yamaguchi carefully explained the situation to the employee, and carried on with the reform. In the end, the system was completed to allow employees to assist in each other's jobs, such as hosting employees helping out in the restaurant, and non-hosting staff helping with banquet work.

In the Japanese inn industry, many companies struggle to correct long working hours, but this company succeeded in cutting overtime by around two hours per week. In addition, the cut in overtime pay was returned to the employees in the form of larger bonuses. The system of two full days off per week has been almost completely introduced from April 2017, and the company has succeeded in increasing the days off taken by each employee for 30 days. Meanwhile, operating profit has risen by 10%, without reducing the quality of service. The company will go on building a workplace environment that can satisfy both employees and guests.

An employee serving a guest

Section 2 Outsourcing initiatives

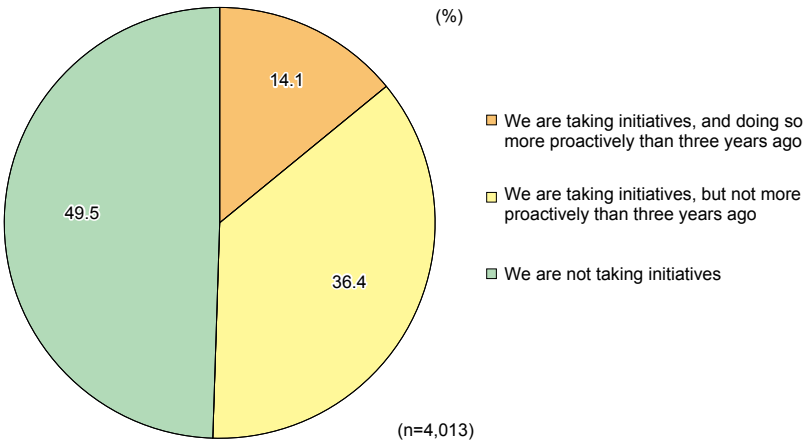
Another means of increasing operational efficiency on the personnel side is to use not just internal but also external personnel. Outsourcing is conjectured to be an effective initiative for enterprises with chronic labor shortages. For example, it can make up for the labor force that is insufficient at the enterprise, and the enterprise can turn out high-quality deliverables by bringing in external personnel who have skills that the enterprise lacks. This section analyzes the state of outsourcing initiatives at SMEs and the benefits, etc., that SMEs have sensed from such initiatives. For this analysis, the section uses the Ministry of Economy, Trade and Industry's *2016 Basic Survey of Japanese Business Structure and Activities* and *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (below, "Questionnaire Survey").

1. State of outsourcing initiatives

(1) State of outsourcing initiatives at SMEs

The state of initiatives at SMEs to outsource existing work was found to be as shown in Fig. 2-3-9. Out of all enterprises, 50.5% had taken outsourcing initiatives, and 14.1% of the total were doing so more proactively than three years before. On the other hand, 49.5% had not taken outsourcing initiatives.

Fig. 2-3-9 State of initiatives at SMEs to outsource existing work

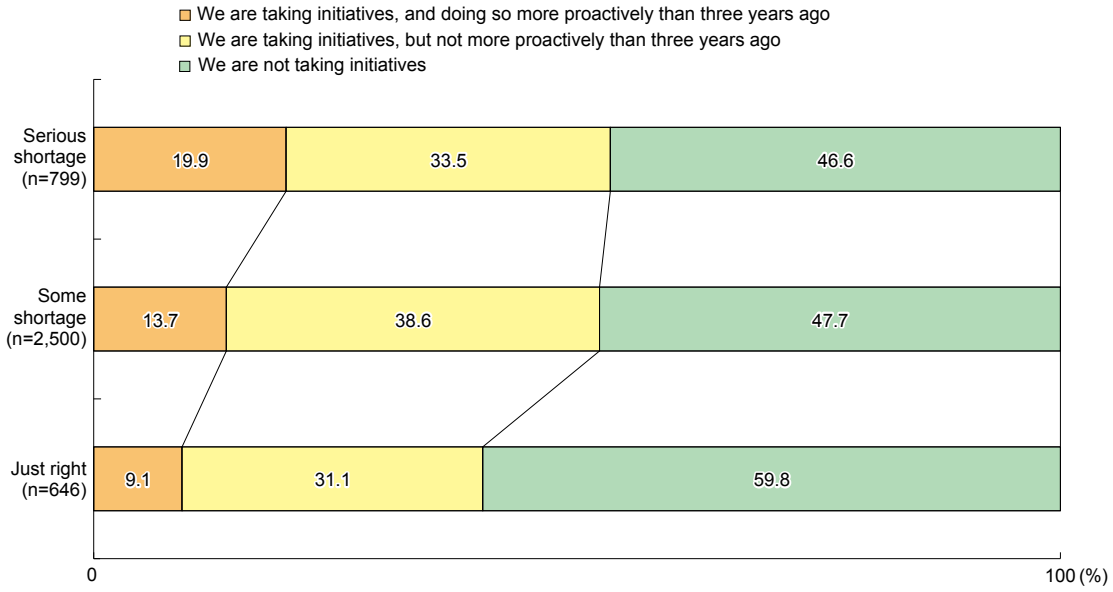


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

(2) Relationship between sense of a labor shortage and state of outsourcing use

Fig. 2-3-10 shows the state of outsourcing use based on enterprises' sense of a labor shortage. Among enterprises that felt they had a "serious shortage" of labor, 19.9% said, "We are taking [outsourcing] initiatives, and doing so more proactively than three years ago." This is a higher rate than for enterprises that felt they had "some shortage" or their supply of labor was "just right." It is conjectured that enterprises with a strong sense of a labor shortage are working to increase operational efficiency by outsourcing part of their work.

Fig. 2-3-10 State of outsourcing initiatives, based on enterprises' sense of a labor shortage



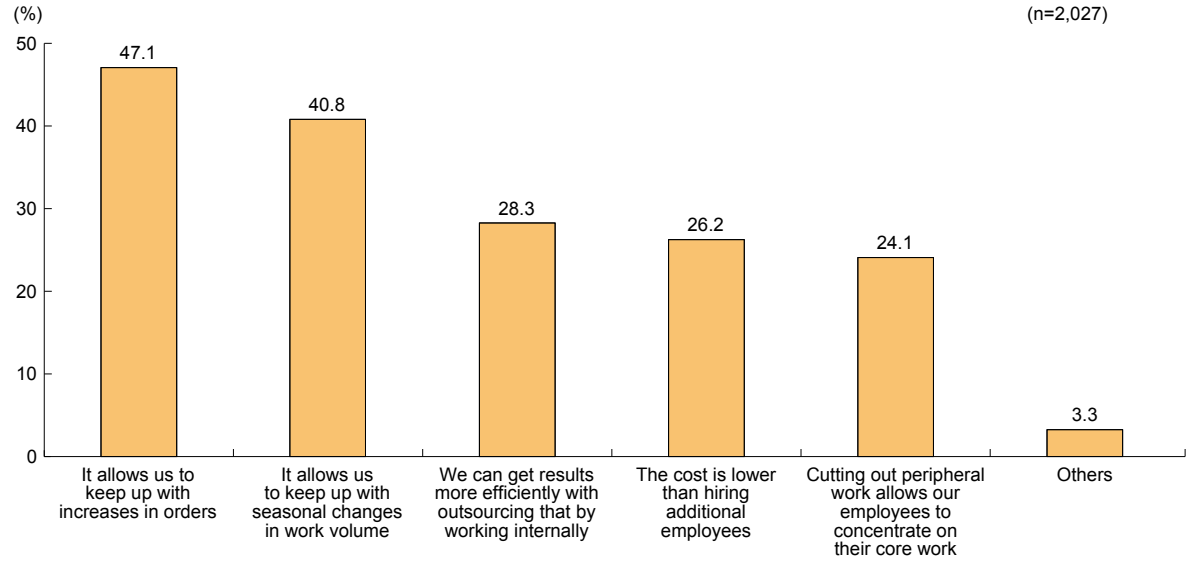
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: The item "Surplus" concerning enterprises' sense of a labor shortage is not shown.

2. Benefits of using outsourcing

(1) Reasons for using outsourcing

Fig. 2-3-11 looks at the reasons for using outsourcing at enterprises that do so. The response given by the greatest percentage was that "It allows us to keep up with increases in orders" (47.1%), followed by "It allows us to keep up with seasonal changes in work volume" (40.8%). Using external resources appears to help enterprises make up for the labor they lack. There were also enterprises that use outsourcing for other reasons, such as "We can get results more efficiently with outsourcing than by working internally" (28.3%) and "Cutting out peripheral work allows our employees to concentrate on their core work" (24.1%).

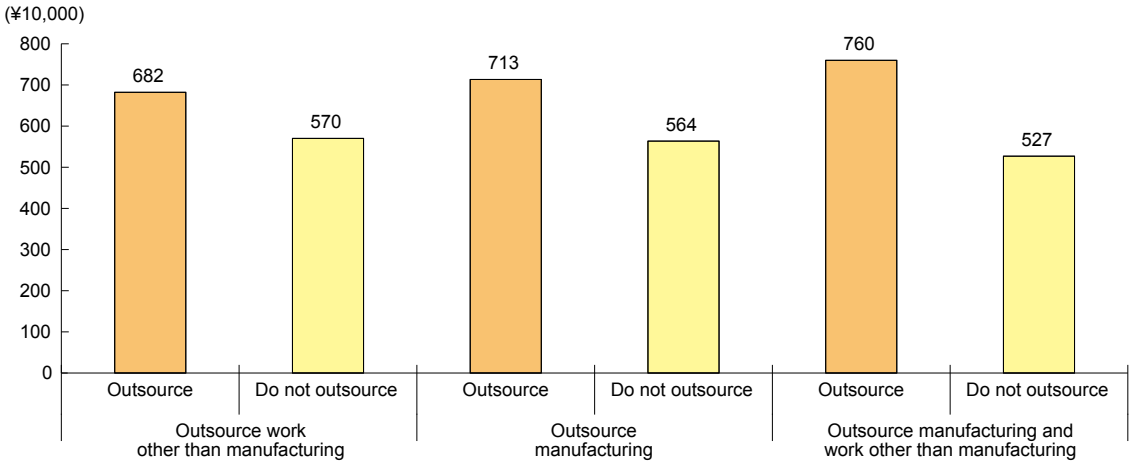
Fig. 2-3-11 Reasons enterprises thought to use outsourcing



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Fig. 2-3-12 shows the added value per person at enterprises that outsource and enterprises that do not, based on the Ministry of Economy, Trade and Industry's *2016 Basic Survey of Japanese Business Structure and Activities*. It shows that added value per person is higher at those enterprises that outsource than at those that do not.

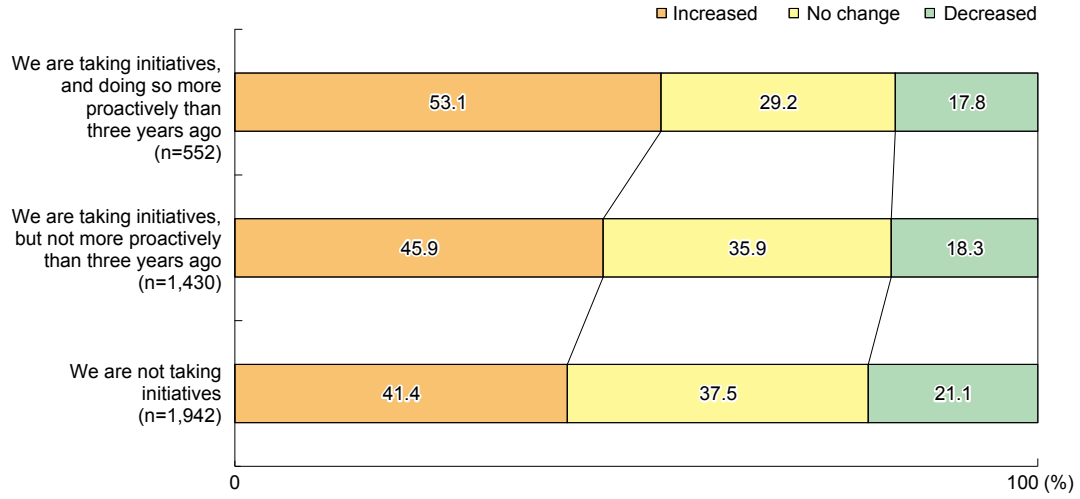
Fig. 2-3-12 Added value per person at SMEs, based on whether they outsource or not



Source: Recompiled from METI, *2016 Basic Survey of Japanese Business Structure and Activities*.
Note: "Added value per person" is the total added value at enterprises that outsourced, etc., divided by the total number of workers at enterprises that outsourced, etc.

Fig. 2-3-13 shows changes in labor productivity compared to three years earlier, based on the state of outsourcing initiatives. Of the enterprises that answered, "We are taking [outsourcing] initiatives, and doing so more proactively than three years ago," those that sensed that labor productivity had increased made up the largest share.

Fig. 2-3-13 Labor productivity compared to three years earlier, based on state of outsourcing initiatives

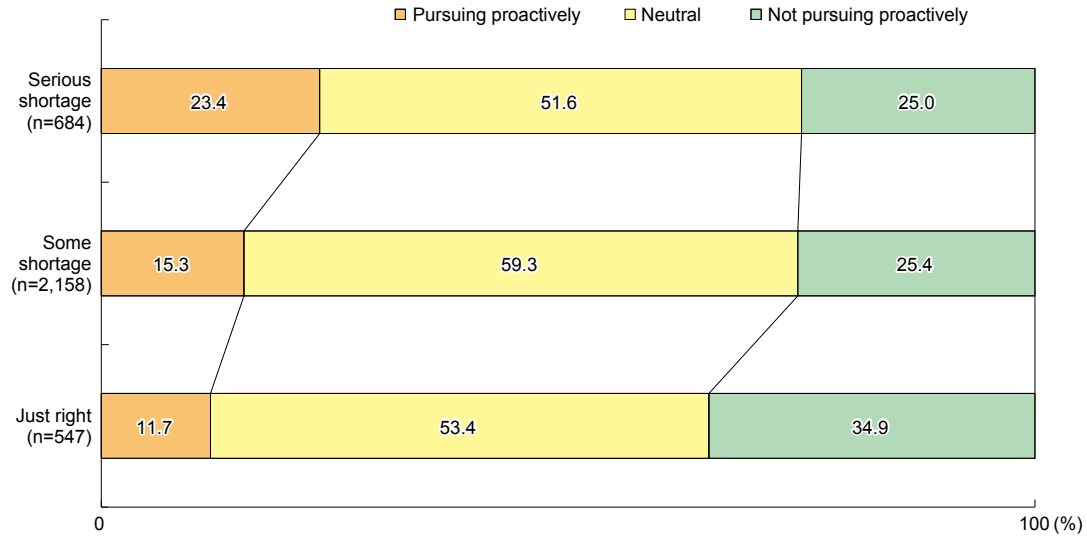


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Totals exclude respondents that answered "Don't know" concerning their companies' labor productivity compared to three years earlier.
2. The "Increased" total includes respondents that said labor productivity had "Significantly increased" or "Somewhat increased," while the "Decreased" total includes those that said it had "Significantly decreased" or "Somewhat decreased."

(2) Policies on outsourcing use going forward

Fig. 2-3-14 shows the policies on outsourcing use going forward based on enterprises' sense of a labor shortage. The stronger the sense of a labor shortage, the higher the percentage of enterprises with a policy of proactively using outsourcing. It is conjectured that the proactive use of external resources is being considered as a means to deal with labor shortages.

Fig. 2-3-14 Policies on outsourcing use going forward, based on enterprises' sense of a labor shortage



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. The item "Surplus" concerning enterprises' sense of a labor shortage is not shown.
2. Totals exclude respondents that answered "Don't know" concerning their policies on outsourcing use going forward.

Case 2-3-5 Hana Monogatari

A business which uses detailed division of employee duties and partial outsourcing to focus on core operations and generate high added value

Hana Monogatari (employees: 15; sole proprietorship), located in Sugito Town, Saitama Prefecture, is a long-established online shop which produces and sells preserved flowers. It earns popularity with its customers by starting with design by a first-class nationally certified technician, and adding value with unique services like name engraving and a rich lineup of decorations. This term, it is achieving its highest ever profits.

One characteristic of Hana Monogatari's work is that it separates some of its operations for outsourcing. Previously, employees all took on tasks such as making products, answering the telephone, managing customers, and administrative processing, but that fell into a situation where insufficient time was allocated to product creation, which is the most important task. Representative Makoto Furukawa of Hana Monogatari responded by asking each employee where the bottlenecks were in their duties. He found that the biggest workload burden was answering the telephone to take orders.

Makoto Furukawa, Representative

He then outsourced telephone order reception work to an external call center. At first he was worried about outsourcing operations, but once he placed the work outside the business, he could feel the quality of the specialized service in aspects like improved customer satisfaction with the call handling. Compared to when phone orders were taken in the office, the call center has more people available to answer calls, so the number of orders the business could take increased, as did its sales.

The monthly cost of employing the call center was ¥40,000-50,000, but with the expansion of sales, it has now risen to around ¥120,000-130,000. Even so, considering the personnel costs and training time required to employ people to take phone orders in-house, Furukawa certainly does not see it as a big cost.

Also, Hana Monogatari sells products from its own website, but outsourcing the tasks of taking product photographs for the site and registering images to the site helps to find more time for employees to concentrate on making products.

Preserved flowers produced and sold by Hana Monogatari

These measures have also helped to create diverse working methods for employees. Hana Monogatari has many female employees, and some of them found it difficult to work away from home, due to responsibilities to raise children or care for parents. Focusing employees' main duties on making products, which can be done at home, made it possible to promote working from home. Those who want to adopt that working pattern can visit the office just once a week, to deliver completed products and pick up materials for the next products to make, so they can work around constraints on their time.

Representative Furukawa says "Using external workers lets us operate more efficiently. I and the employees can focus on our important work, so in future I want to go on outsourcing any work that can be separated."

Case 2-3-6 Daito Co., Ltd.

A company which uses separation and outsourcing of non-core work, so that employees can concentrate on their core duties

Daito Co., Ltd. (employees: 43; capital: ¥465 million), located in Osaka City, Osaka Prefecture, is a metal tools wholesaler established in 1952. It sells DIY and gardening tools in Japan and overseas.

President Takahito Yamada took on his wife's family's business as a condition of their marriage, and started expanding into retail from 2002. Starting from a one-man Internet sales operation, he succeeded in not just growing the company's e-commerce site, but also in established the Pheasantool Japanese-made private tool brand, and opening DIY Factory hands-on DIY shops in Namba, Osaka, and Futako-Tamagawa, Tokyo.

When the products handled by the company's Internet sales came to number more than 100,000, and sales expanded explosively, employees were rushing from morning to night to pack and ship goods, and even company president Yamada got dragged into the work. Much of the order reception and communication was done by fax, and Yamada, listening to the sighs of female employees who had to send faxes, was keenly aware of the need for working improvements, thinking "sales are growing, but the employees are not happy."

Takahito Yamada, President

He responded by defining jobs that anyone can do as just labor tasks, identifying that labor, and outsourcing it. The work of placing product orders is automated using IT tools, the work of processing product photos and registering them to the marketing catalog is outsourced to China, and the packaging and shipping of products is outsourced to a logistics center. As a result, the company's employees are able to concentrate on their real duties in sales and product planning.

Apparently, outsourcing had the unanticipated benefit of visualizing costs. For example, using a logistics center means that when a product doesn't move for a month, it generates a cost in the form of a warehousing fee. That made the president and employees more highly aware of costs.

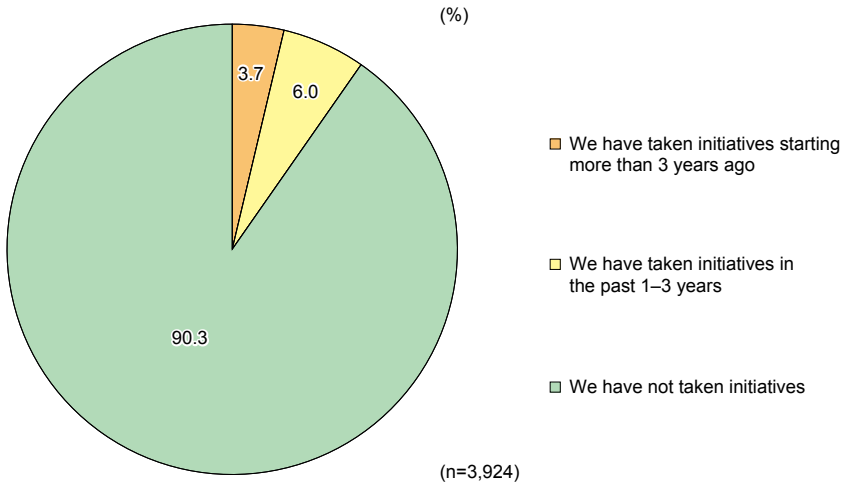
Scene inside a DIY Factory store

The company is still constantly working on a review of its operations, involving all employees in the process, and raising efficiency. Rather than saying to the employees "Please make improvement suggestions," the company conveys the message "write down anything that you find inconvenient or troubling." That approach makes it easier for employees to offer suggestions, and the management side advances reforms by breaking down the improvement points mentioned in those suggestions. The company wants to identify tasks, from the improvement suggestions offered, which could be separated out, outsource those tasks, to build an environment in which its employees can focus on work that generates high added value.

Column 2-3-1 Use of crowdsourcing

This column focuses on crowdsourcing[1], with an analysis of its use. Fig. Column 2-3-1 (1) shows that the great majority of respondents (90.3%) said, "We have not taken [crowdsourcing] initiatives." On the other hand, 6.0% said, "We have taken initiatives in the past 1-3 years" and 3.7% said, "We have taken initiatives starting more than 3 years ago." So about 10% of enterprises have tried crowdsourcing. This indicates there is more room for crowdsourcing to grow than is the case with outsourcing.

Fig. Column 2-3-1 (1) Use of crowdsourcing



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Fig. Column 2-3-1 (2) shows the state of crowdsourcing initiatives based on the age of the president. Among enterprises with presidents of age "39 or younger," a total of 14.2% had used crowdsourcing, a higher percentage than enterprises with presidents of other age groups.

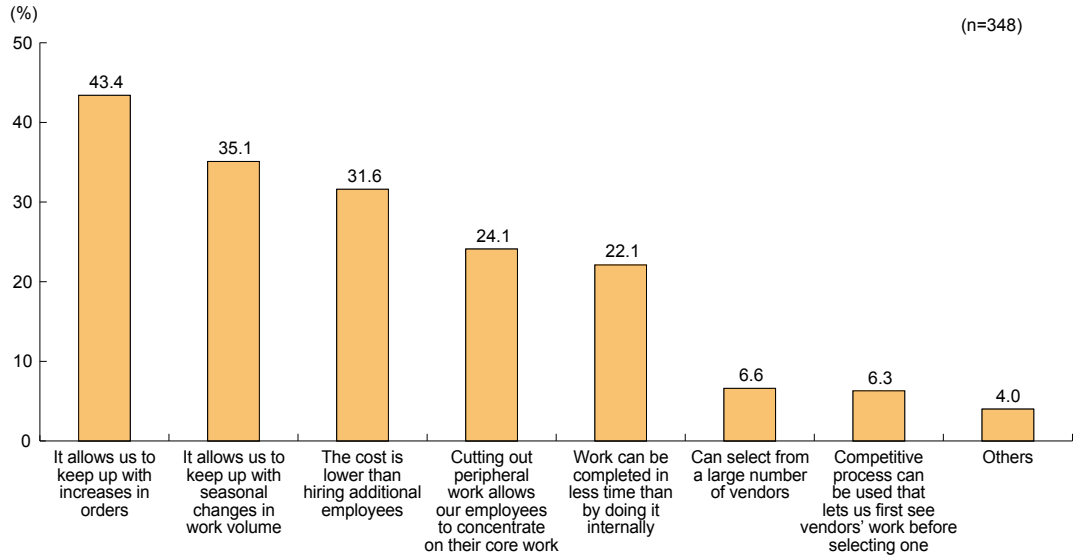
1) Crowdsourcing is a mechanism for procuring the human resources that can supplement management resources lacking at one's own company by placing an order for the job with large numbers of the general public over the Internet.
For details, refer to Section 1, Chapter 5, Part III of *2014 White Paper on Small and Medium Enterprises in Japan.*

Fig. Column 2-3-1 (2) State of crowdsourcing initiatives, based on age of president

Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Fig. Column 2-3-1 (3) shows the advantages of crowdsourcing at the enterprises that had used it. The most frequent response was that "It allows us to keep up with increases in orders," followed by "It allows us to keep up with seasonal changes in work volume." It is conjectured that many enterprises use crowdsourcing to keep up with increasing work volumes.

Fig. Column 2-3-1 (3) Advantages of crowdsourcing



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. Total includes respondents who said, "We have taken [outsourcing] initiatives [to deal with our labor shortage] starting more than 3 years ago" or "We have taken initiatives in the past 1-3 years."

Case 2-3-7 Suteteko Company

A company which uses crowdsourcing to outsource routine tasks, to generate high added value from its employees

Suteteko Company (employees: 26; capital: ¥10 million), located in Awara City, Fukui Prefecture, is an Internet marketer and wholesaler of underwear. After it was founded in 1946, it developed as a volume retailer of clothing, but after Hiroyuki Sasahara became the company's third representative director, it grew by moving faster than competitors in starting online sales, and by accumulating expertise earlier.

One of the drivers of the company's growth has been its use of crowdsourcing. It uses crowdsourcing particularly for routine tasks such as writing blog posts and translating them into foreign languages. This approach enables the company's own employees to concentrate on marketing through online advertising, which generates high added value, leading to increased sales.

It is intrinsic to crowdsourcing that work is ordered from unseen counterparts, so it is essential to carefully convey the image of the completed deliverable, so that the order recipient can easily understand it. Nevertheless, it is convenient to use, overall, and the company is satisfied with the deliverables. Another advantage is that the method of order placement can be selected to suit the content of the order. For example, the project type of order allows selection of the order recipient based on past performance, while the competition type allows the buyer to select the deliverable from among numerous offers.

Other than routine tasks, the company has also used crowdsourcing for tasks such as building highly specialized systems, and received satisfactory deliverables, so it was impressed by how generally applicable crowdsourcing is.

As part of its work efficiency improvement efforts, the company inventoried its operations and found that the work of preparing product images for the website was highly time-consuming. In future, it will use crowdsourcing for that kind of work too, and continue to build an organization that will allow the company's own employees to concentrate more fully on the work that really should be done in-house. President Sasahara says "In future, we will use crowdsourcing for work that we can place outside the company, and proceed with raising working efficiency substantially within the company."

Hiroyuki Sasahara, Representative Director

Section 3 Human resources development initiatives

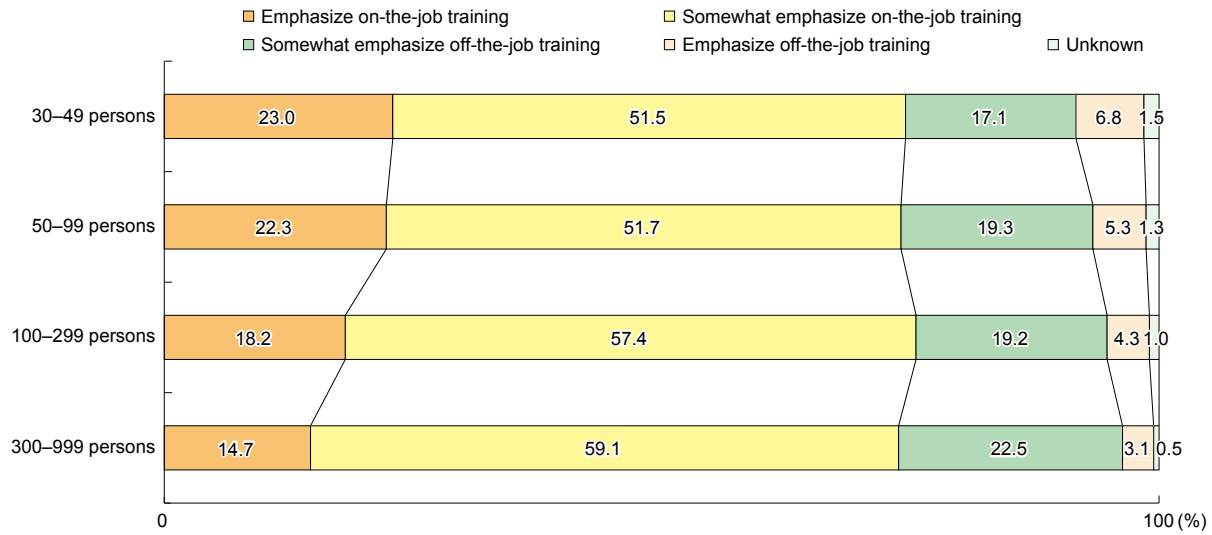
To deal with their labor shortages, SMEs need to innovate in ways that economize on labor inputs, as in Sections 1 and 2, but they must also practice human resources development / talent development to increase the added value generated by their employees. This section looks at human resources development initiatives at SMEs, using the Ministry of Health, Labour and Welfare's *FY2016 Basic Survey of Human Resources Development* and survey results from the Japan Institute for Labour Policy and Training.

1. Current state of human resources development initiatives

(1) On-the-job training, off-the-job training, and personal development cost support initiatives status

Means that enterprises have for developing their employees include "on-the-job training," or training employees as they do day-to-day work, and "off-the-job training," or training that employees take under an administrative order while on temporary leave from their usual work. Another is support for "personal development" costs. Personal development is training that workers take voluntarily to develop and improve their occupational capabilities in order to continue their careers. This part first looks at the state of on-the-job training and off-the-job training initiatives. Fig. 2-3-15 shows whether enterprises put more emphasis on on-the-job training or off-the-job training, by scale of business, based on the Ministry of Health, Labour and Welfare's *FY2016 Basic Survey of Human Resources Development*. Most respondents said that they "Emphasize on-the-job training" or "Somewhat emphasize on-the-job training," suggesting that enterprises value on-the-job training. On the other hand, more than 20% of respondents said that they "Emphasize off-the-job training" or "Somewhat emphasize off-the-job training," so there appear to be a certain number of enterprises that value off-the-job training.

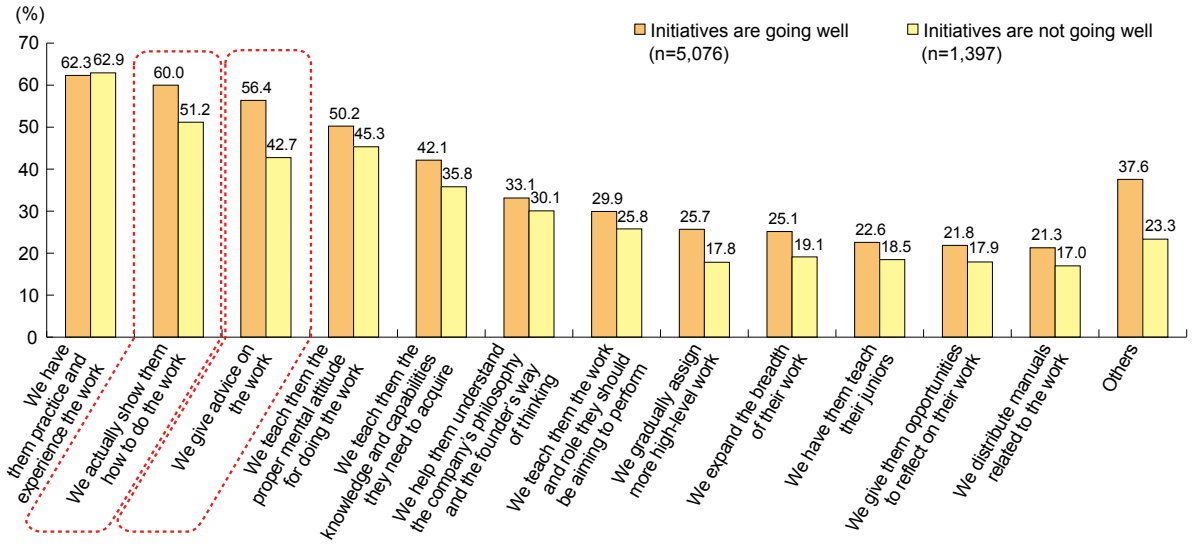
Fig. 2-3-15 Training that is emphasized, by scale of business



Source: Ministry of Health, Labour and Welfare (MHLW), *FY2016 Basic Survey of Human Resources Development.*
Notes: 1. Each number is a percentage of all enterprises in the scale category that have regular employees.
2. The figure totals approaches to training of regular employees.

This part examines the nature of initiatives enterprises are taking to effectively teach employees their tasks in the course of day-to-day work, by whether the enterprise said that "Initiatives are going well" or "Initiatives are not going well." The data is based on the Japan Institute for Labour Policy and Training's *Results of Survey on Current Status and Issues in Human Resources Development / Talent Development (Enterprise Survey)*. Fig. 2-3-16 shows that among enterprises that felt their on-the-job training "Initiatives are going well," the most common response was "We have them practice and experience the work." The responses "We actually show them how to do the work" and "We give advice on the work" were chosen more often by enterprises that felt their on-the-job training "Initiatives are going well" than those who felt "Initiatives are not going well."

Fig. 2-3-16 Specific initiative methods, by whether the enterprise thought there were benefits in on-the-job training

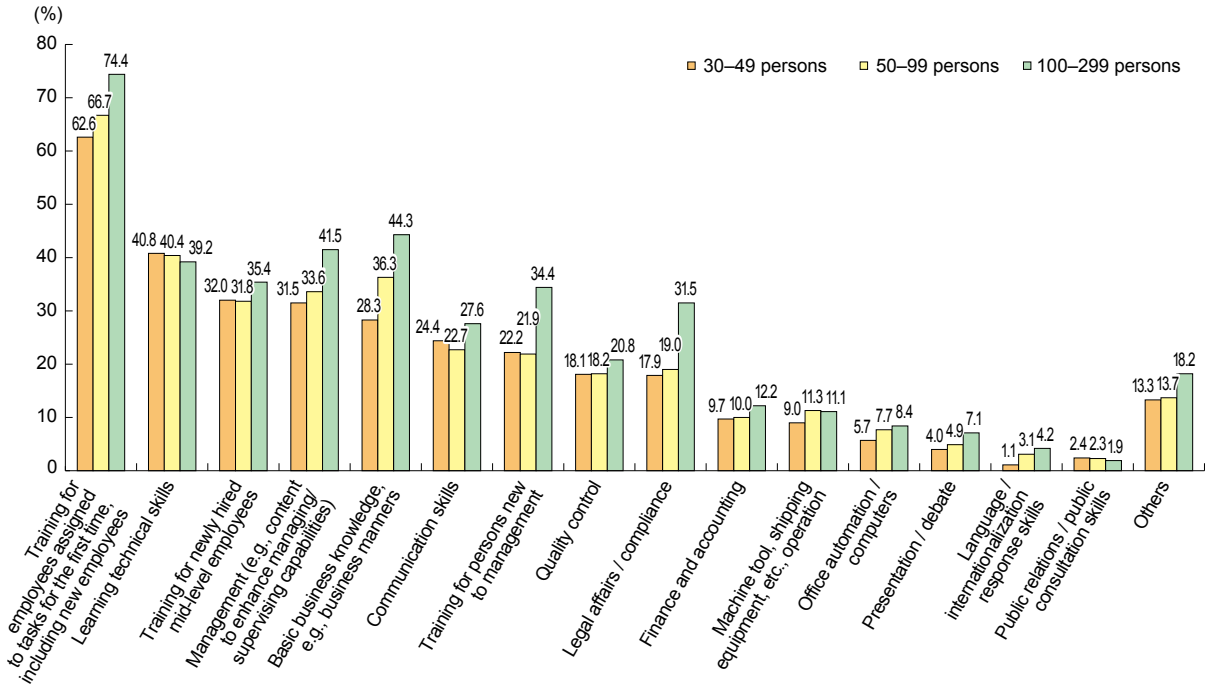


Source: Japan Institute for Labour Policy and Training, *Results of Survey on Current Status and Issues in Human Resources Development / Talent Development (Enterprise Survey)* (September 2016).

Notes:
1. The survey looked at enterprises with at least five employees.
2. Totals exclude respondents that answered "We are not doing anything" when asked about initiatives they are taking to effectively teach employees their tasks in the course of day-to-day work.
3. In assessing initiatives enterprises are taking to effectively teach employees their tasks in the course of day-to-day work, the "Initiatives are going well" total includes respondents that said "Initiatives are going well" or "Initiatives are going somewhat well," while the "Initiatives are not going well" total includes respondents that said "Initiatives are not going very well" or "Initiatives are not going well."
4. "Others" is the total of respondents that answered, "We explain the company's human resources development policies," "We make training plans for individual employees," "We have an appointed instructor," "We give advice on the person's career life going forward," or "Other."
5. Total does not always equal 100% as multiple responses were possible.

Next is an overview of the state of off-the-job training initiatives. Fig. 2-3-17 looks at the nature of off-the-job training given by enterprises. "Training for employees assigned to tasks for the first time, including new employees" was the most frequent response, regardless of scale of business. A high percentage of enterprises with "100–299 persons" chose responses relating to the development of core personnel, such as "Management (e.g., content to enhance managing/supervising capabilities)" and "Training for persons new to management."

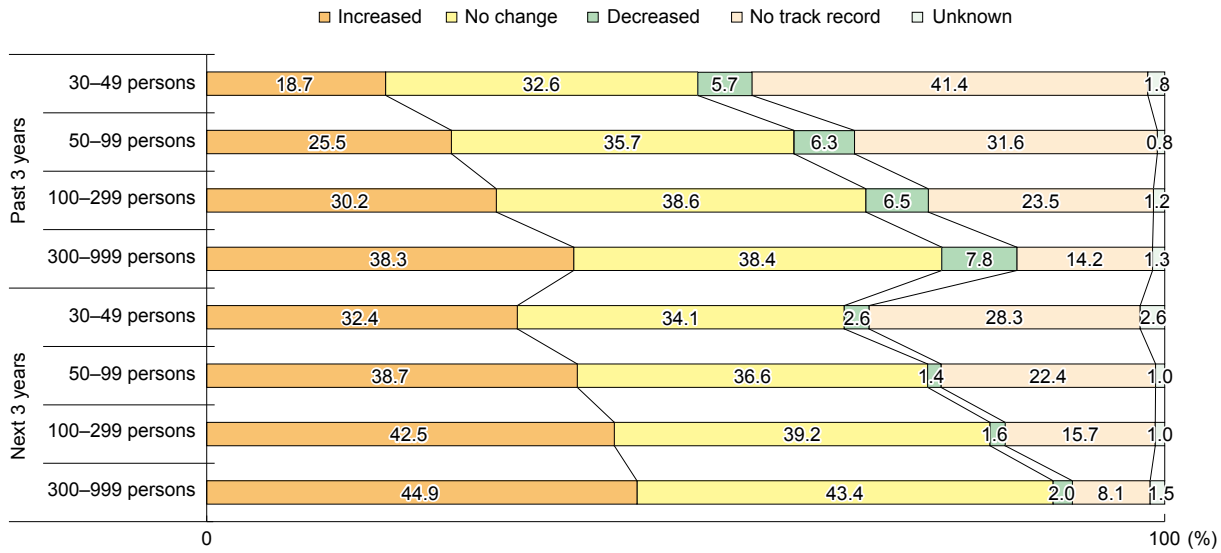
Fig. 2-3-17 Nature of off-the-job training, by scale of business



Source: Ministry of Health, Labour and Welfare (MHLW), *FY2016 Basic Survey of Human Resources Development.*
Notes: 1. Totals are for respondents that answered, "We gave off-the-job training."
2. Total does not always equal 100% as multiple responses were possible.

Fig. 2-3-18 shows the track record of whether off-the-job training costs had increased or decreased in the past three years and projections for the next three years, by scale of business. It shows that for enterprises of all scales, there is a rising percentage of enterprises that will be increasing off-the-job training costs in the next three years compared to the previous three years. It is conjectured that off-the-job training is becoming increasingly necessary for human resources development / talent development.

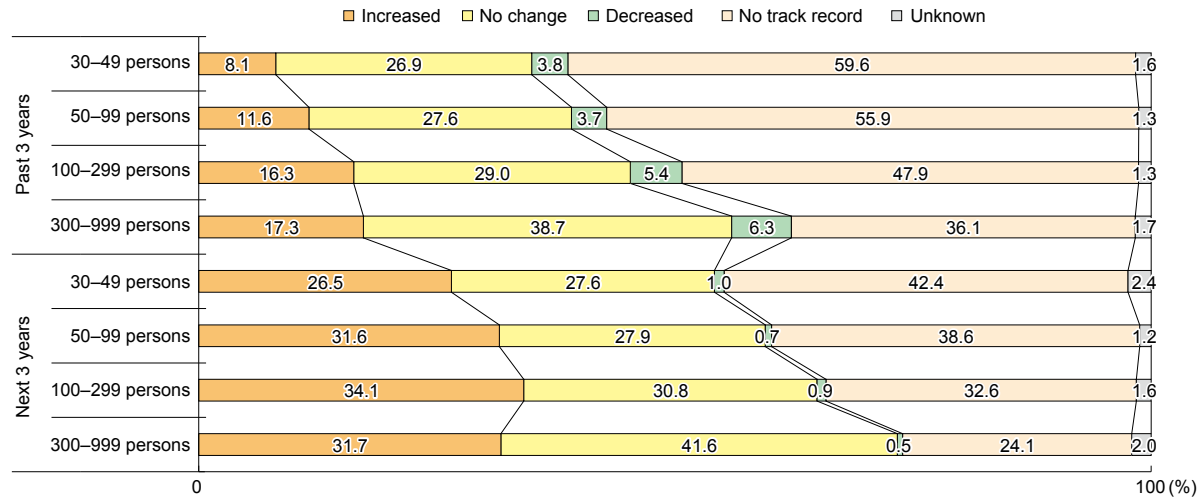
Fig. 2-3-18 Track record of off-the-job training costs in the past three years and projections for the next three years, by scale of business



Source: Ministry of Health, Labour and Welfare (MHLW), *FY2016 Basic Survey of Human Resources Development.*
Notes: 1. Each number is a percentage of all enterprises in the scale category that have regular employees.
2. Totals include the track record of costs for regular employees in the past three years and projections for the next three years.

Next is an analysis on personal development initiatives. Fig. 2-3-19 shows the track record of enterprise support for employees' personal development costs in the past three years and projections for the next three years, by scale of business. It shows that there is a rising percentage of enterprises that will be increasing personal development support costs in the next three years compared to the previous three years. This suggests that, like off-the-job training, personal development is becoming more necessary for human resources development / talent development.

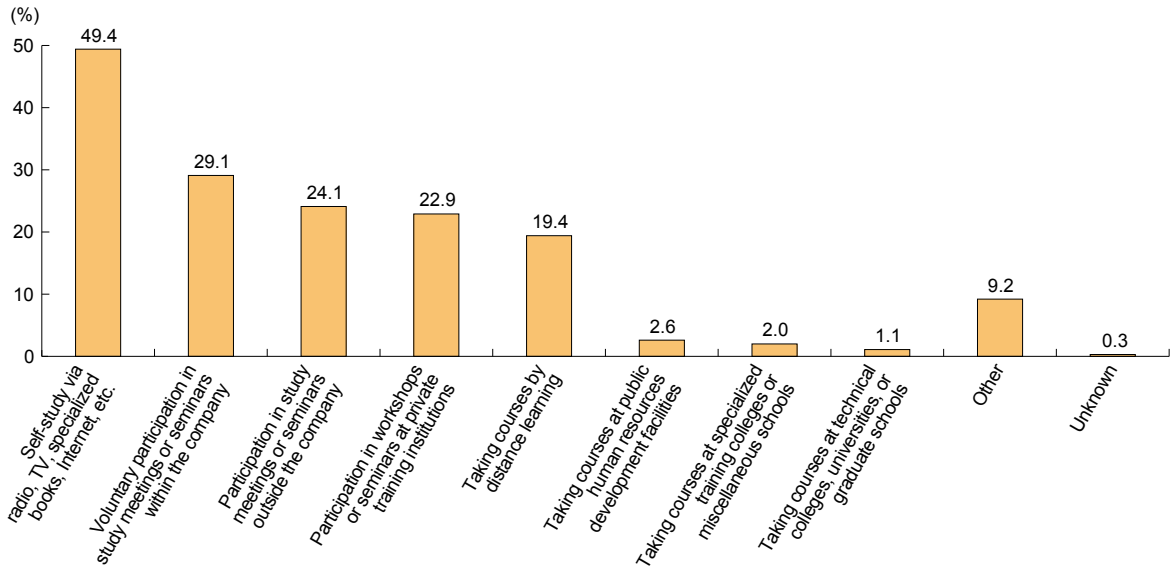
Fig. 2-3-19 Track record of personal development support costs in the past three years and projections for the next three years, by scale of business



Source: Ministry of Health, Labour and Welfare (MHLW), *FY2016 Basic Survey of Human Resources Development.*
Notes: 1. Each number is a percentage of all enterprises in the scale category that have regular employees.
2. Totals include the track record of costs for regular employees in the past three years and projections for the next three years.

Fig. 2-3-20 shows the kinds of initiatives taken by persons who went through personal development. The most frequent answer was "Self-study via radio, TV, specialized books, Internet, etc." On the other hand, only a few selected such responses as "Taking courses at public human resources development facilities," "Taking courses at specialized training colleges or miscellaneous schools," or "Taking courses at technical colleges, universities, or graduate schools." It is conjectured there is room to grow for personal development initiatives in the form of taking courses at schools, etc.

Fig. 2-3-20 Kinds of personal development initiatives

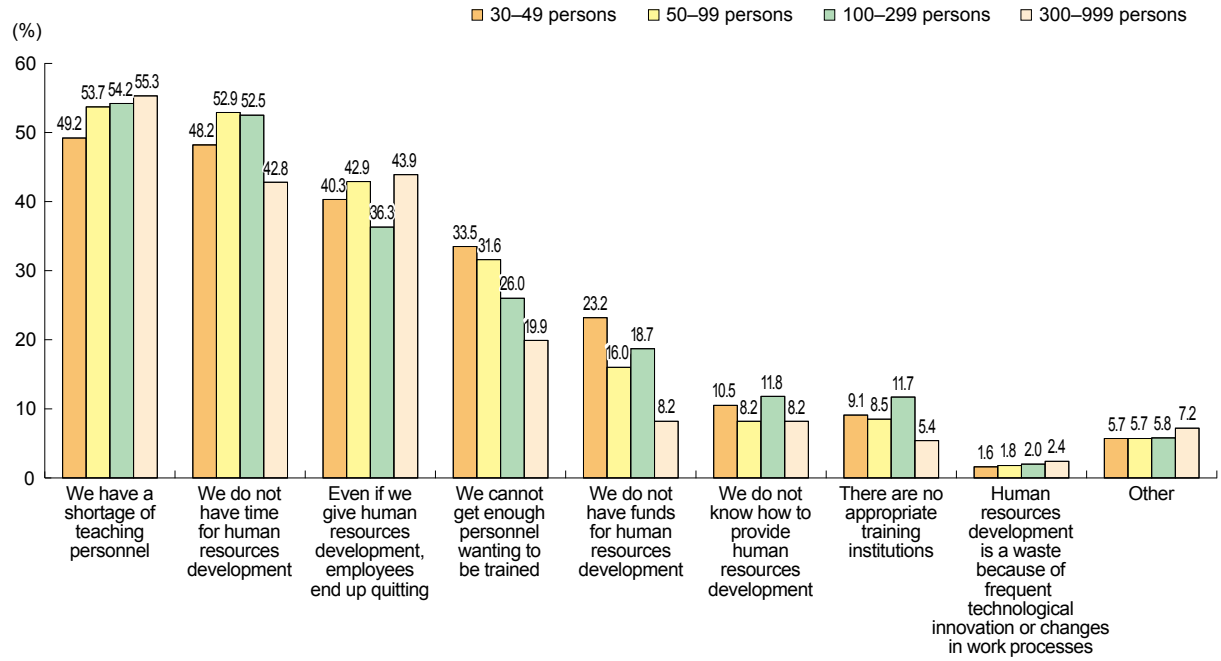


Source: Ministry of Health, Labour and Welfare (MHLW), *FY2016 Basic Survey of Human Resources Development.*
Notes: 1. Totals are of responses for "Regular employees."
2. Totals are for respondents that answered, "Employees went through personal development."
3. Total does not always equal 100% as multiple responses were possible.

(2) Human resources development issues

Fig. 2-3-21 shows the issues that respondents felt existed in human resources development / talent development, by scale of business. The larger the scale, the greater the percentage of enterprises facing a shortage of teachers, specifically saying, "We have a shortage of teaching personnel." On the other hand, the smaller the scale, the greater the percentage of enterprises facing a shortage of persons to be taught, specifically saying, "We cannot get enough personnel wanting to be trained." This shows that even to talk about issues in human resources development / talent development, there are differences in which issues are faced by enterprises of different scales.

Fig. 2-3-21 Issues that existed in human resources development / talent development, by scale of business



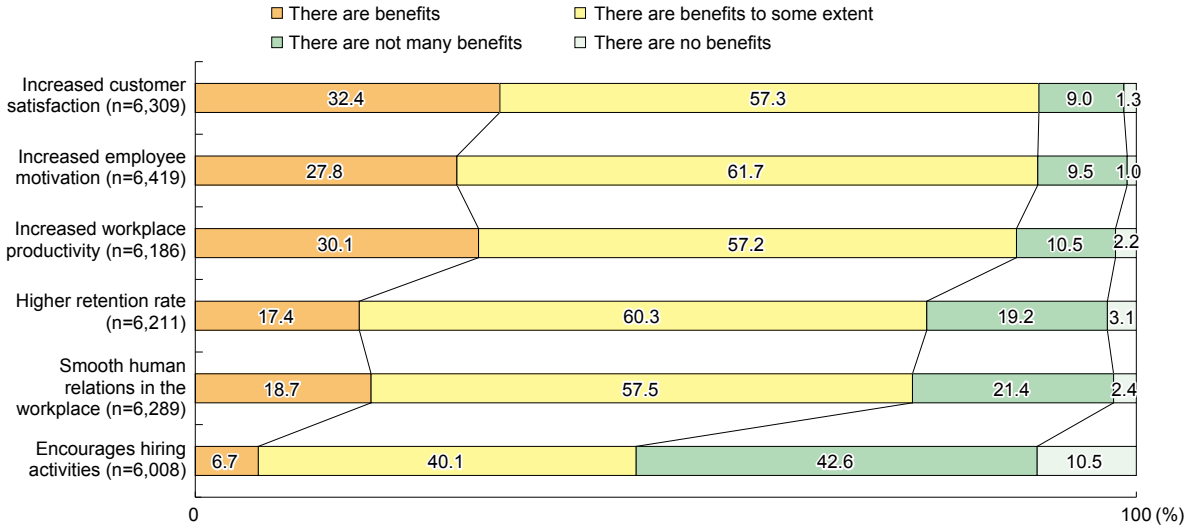
Source: Ministry of Health, Labour and Welfare (MHLW), *FY2016 Basic Survey of Human Resources Development.*
Note: Totals are for those respondents that answered there have been problems with human resources development.

2. Human resources development benefits

(1) Benefits of human resources development / talent development, as seen by enterprises

This part looks at what benefits enterprises see in human resources development / talent development. Once again, the data is based on the Japan Institute for Labour Policy and Training's *Survey on Current Status and Issues in Human Resources Development and Talent Development (Enterprise Survey)*. Fig. 2-3-22 shows that a high percentage of respondents chose "Increased customer satisfaction," "Increased employee motivation," and "Increased workplace productivity." It is conjectured that these enterprises perceive positive benefits of human resources development / talent development from many angles.

Fig. 2-3-22 Benefits of human resources development / talent development, as seen by enterprises

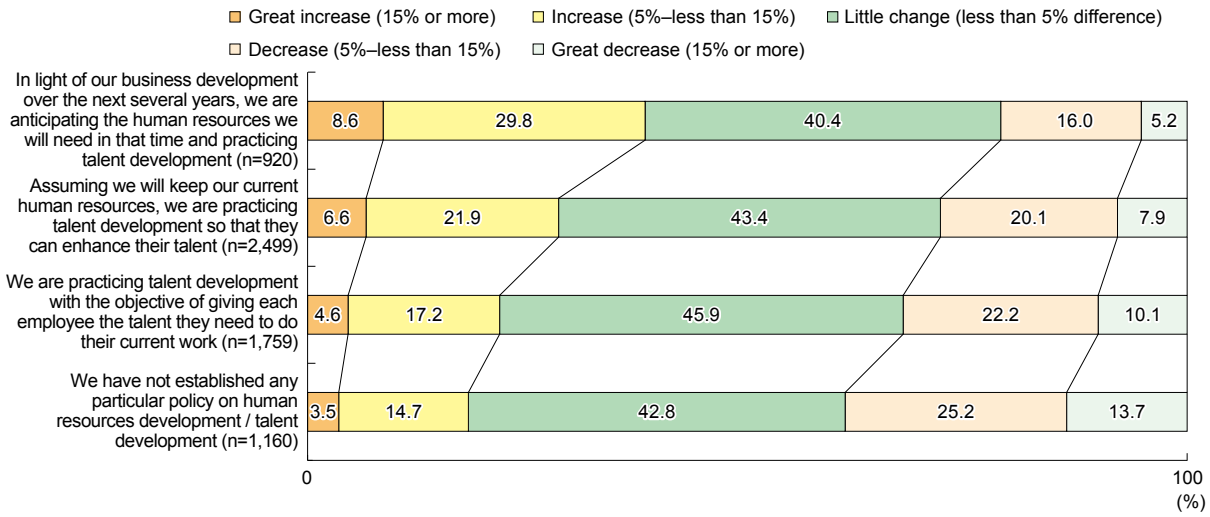


Source: Japan Institute for Labour Policy and Training, *Results of Survey on Current Status and Issues in Human Resources Development / Talent Development (Enterprise Survey)* (September 2016).
Notes: 1. The survey looked at enterprises with at least five employees.
2. Totals excluded those that gave no response.

(2) Relationship between human resources development / talent development policies and operating income trends

Next, Fig. 2-3-23 shows trends in enterprise operating income for the past three years based on the enterprise president's employee human resources development / talent development policies. Among enterprises that responded, "In light of our business development over the next several years, we are anticipating the human resources we will need in that time and practicing talent development," a high percentage were experiencing rising operating income. On the other hand, among enterprises that responded, "We have not established any particular policy on human resources development / talent development," a higher percentage were experiencing declining operating income as compared to other enterprises. Although one cannot make a sweeping conclusion that human resources development / talent development results in rising operating income, one can conjecture that practicing human resources development with a longer-term perspective contributes to rising earning capacity and productivity at SMEs.

Fig. 2-3-23 Employee human resources development / talent development policies, by trends in operating income for the past three years



Source: Japan Institute for Labour Policy and Training, *Results of Survey on Current Status and Issues in Human Resources Development / Talent Development (Enterprise Survey)* (September 2016).

Notes: 1. The survey looked at enterprises with at least five employees.
2. Totals excluded those that gave no response.

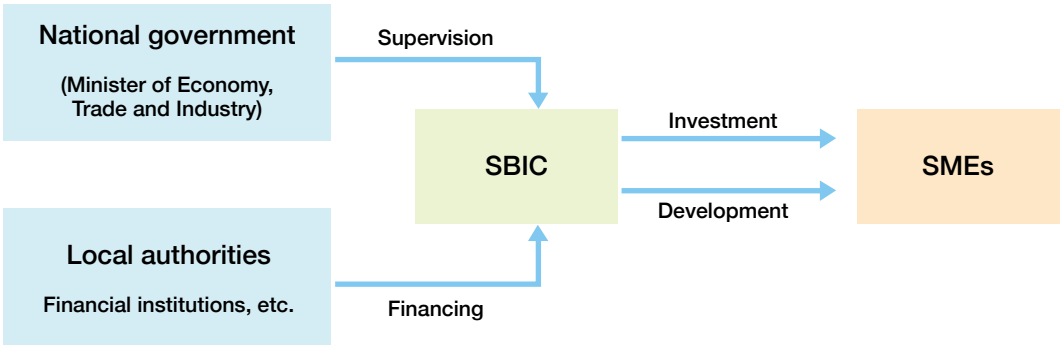
Column 2-3-2 SME human resources development support by SBICs

For SMEs with few employees, new-employee training and other training of employees in charge of operations may be difficult to do internally. For SMEs, therefore, actively using training by outside organizations that provide employee training, etc., can be very effective.

Japan's small and medium business investment and consultation companies (SBIC) are policy implementation organizations that become shareholders in SMEs by such means as assuming their stock and which build up SMEs' equity capital and support their healthy growth. SBICs were established in 1963 in Tokyo, Nagoya, and Osaka as based on the Small and Medium Business Investment & Consultation Companies Act. Their investment development programs have been used cumulatively by 5,292 companies throughout Japan as of December 31, 2017.

SBICs also provide employee training programs, which include rank-specific training and presidents' training custom-designed for SMEs. SMEs take advantage of such programs as a way of supporting their human resources development.

[Investment development program scheme]



[Human resources development support by SBICs]

Rank-specific training	New-employee training, section manager training, department manager training, executive officer training, etc.
Practical business training	Sales training, accounting staff training, personnel system training, etc.
Successor development support	Successors and administrative management candidates come together to learn systematic and practical operations knowledge. The program also deepens participants' studies as successors and administrative managers through discussions, case studies, issue analysis, and administrative planning.
Lectures and seminars	Well-known enterprise presidents, persons of culture, and so on are invited to give lectures on a variety of themes. Seminars provide useful information for labor, tax, and other practical business affairs.
Cross-industry exchanges	Events such as company presidents' gatherings, various training courses, overseas observations, and more help to build personal connections and exchange information.

At a training

At a lecture

[Contact for inquiries]

- Tokyo Small and Medium Business Investment & Consultation Co., Ltd.
  (Covers 18 prefectures: Niigata, Nagano, Shizuoka, and others to the east of them)
  URL: http://www.sbic.co.jp/
  Telephone: head office 03-5469-1811

- Nagoya Small and Medium Business Investment & Consultation Co., Ltd.
  (Covers five prefectures: Aichi, Gifu, Mie, Toyama, Ishikawa)
  URL: http://www.sbic-cj.co.jp/
  Telephone: head office 052-581-9541

- Osaka Small and Medium Business Investment & Consultation Co., Ltd.
  (Covers 24 prefectures: Fukui, Shiga, Nara, Wakayama, and others to the west of them)
  URL: http://www.sbic-wj.co.jp/
  Telephone: head office 06-6459-1700; Kyushu branch 092-724-0651

Case 2-3-8 Sanica Co., Ltd.

A company which practices planned personnel development while also using external agencies, working to raise the capabilities of its employees

Sanica Co., Ltd. (employees: 175; capital: ¥65 million), located in Minami Alps City, Yamanashi Prefecture, develops and manufactures products such as parking lot systems equipment and mechatronics devices.

The company's training system used to center on training at the levels of managers and section heads, as well as on-the-job training (OJT) and support for self-directed learning. But as the shortage of workers worsened, the company recognized that it needed to raise the skills and capabilities of each individual employee more than ever before, if it was to greatly improve its productivity in future.

It identified the capabilities, skills, and qualifications required for the tasks in each internal department, and listed skill and qualification systems able to certify them. Those were set as "internal certification and qualification systems," and the company decided to foot the bill for all examinations and classes required by the systems on the list. By now, there are 74 certifications and qualifications registered on the list (For example, the Business Career Kentei from the Japan Vocational Ability Development Association). The list is revised annually to match the content of operations which change together with the management environment. This approach made job skill-specific training a fourth pillar to the company's training and education system, alongside rank-specific training, OJT, and support for self-directed learning.

It is difficult to prepare in-house training programs for the rank-specific training provided to managers and section heads, so the company uses the personnel development curriculum from the Tokyo Small and Medium Business Investment & Consultation Co., Ltd., an executive agency. Every year, several managers and section heads are sent to participate in planned external training as they are promoted, so that managers get leadership training, and section heads get training in management fundamentals. External training is a program of a few days, so there is a limit to what can be learned in a limited number of days, but it is possible to get a grasp of how much knowledge the trainees lack, and it is stimulating for them to study alongside other trainees in the same position. Apparently there is another significant side effect, which is that sending employees for training "makes them more aware that they have been promoted to a position of responsibility."

Norimasa Hayashi, President

The company also organizes regular training sessions which cut across departmental boundaries, such as sessions where someone from the production management division is the teacher and the trainees are sales staff. These sessions are intended to give trainees an understanding of what other departments do, to lower barriers between departments by strengthening inter-departmental cooperation and raising working efficiency, and to nurture personnel able to work in multiple departments.

President Norimasa Hayashi says "I want each individual employee's everyday study and constant effort to give them joy and pride in their work, and to realize dreams that the company and its individual members hold in common."

An internal training session

Case 2-3-9 Sapporo Kokyu Imono Co., Ltd.

A company which tackles the shortage of workers by empowering inexperienced female workers through personnel development

Sapporo Kokyu Imono Co., Ltd. (employees: 59; capital: ¥80 million), located in Sapporo City, Hokkaido, produces castings in special steels, for use in power generation and factory plant. It handles around 800 varieties of special steel, with properties such as strong resistance to corrosion, heat, and wear, and it specializes in diverse small-lot production.

Cast products are heavy, and their manufacturing and transportation requires physical strength, so the company had mainly hired men before. However, the impact of the shortage of workers in recent years has led to declining numbers of male applicants, despite recruiting efforts, and the company was struggling to find enough personnel.

Against that context, the company, in its hiring activities, got a response from a female students heading for graduation from an industrial high school saying "I want to make things." That prompted the company to wonder if it could produce a workplace where women could work. It made its policy, which had always been to look to hire men, more flexible, and aimed to hire women, even without experience as long as they were keen, for engineering positions.

Education had previously centered on OJT, but the company tried using external training, because it wanted to provide female hires with technical skills in less time. Basic skills were learned through practical training, with trainees attending a specialist college for around four months for welding work, and a specialist school for seven days for CAD operation.

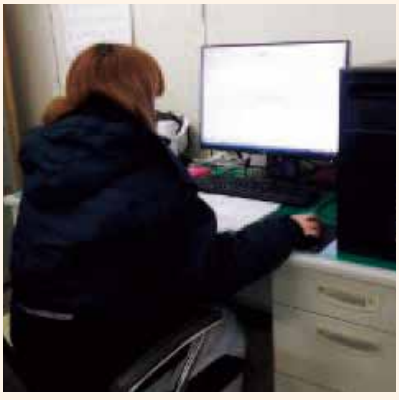
The company says the female employees who received this education are fully capable in the workplace. Also, in anticipation of more female employees, the company introduced arm-type robot cranes for polishing processes, in which products had previously been moved by muscle power, improving the workflow so that it is no longer necessary to directly carry products while working on them. It is continuing to develop a low-load working environment.

The company's personnel education and working environment improvements have paid off, as it has succeeded in hiring female employees, four over the last four years, relieving its shortage of workers.

President Yuri Okuda says "If they have the interest and the willingness to learn, even women with no work experience can work just the same as male employees, and that lets us, as a company, end our shortage of workers. Also, an environment which imposes less burden on women is clearly an easier place for men to work in too. Casting workshops had the image of a "men's workplace" before, but we want to improve and develop our working environment, to change that image."

A female employee making a sand mold

Welding work



CAD work

Case 2-3-10 Naomi Co., Ltd.

A company which is raising productivity by applying stronger communication between management and employees to personnel development

Naomi Co., Ltd. (employees: 55; capital: ¥10 million), located in Minoh City, Osaka Prefecture, manufacturers and sells compact food-product fillers, which fill containers with set quantities of foods such as sauces, creams, and powdered soybeans. Its products are mainly used by convenience store chain food factories and small and medium food manufacturers. The work of filling each container with a fixed amount of food has often been done by hand, and the company's customers reduce workloads and raise productivity in their workplaces by installing the company's products.

Yukie Komai, the company's second president, has grown the company's sales from ¥280 million to ¥1.07 billion, and its workforce from 10 to 55 employees, over eight years since she took the position. Back when Komai joined the company, it lacked internal communication, management and employees did not understand each other, and there was a feeling that people were working on the basis of assumptions. From that time, she saw the need for the management to take time with the employees to talk and build a relationship of trust. After becoming president, she started practicing personnel development through communication between management and employees, to encourage growth in employee awareness, and that has been the driving force behind the company's growth.

Yukie Komai, President

Specifically, meetings between company executives and young employees are positioned as "listening sessions." Management and employees, and fellow employees, sit down and listen to each other, to facilitate smooth communication within the company and raise team performance and motivation. As a result, employees became keen to offer their opinions, and the management picked up and acted on those opinions. That was an opportunity for raise employees' awareness and consciousness, and let them really feel that the company was growing. For example, the marketing and advertising office was established as a new department at the urging of a new hire who had only graduated a year earlier. The employee who suggested the office personally devised its methods, and is increasing the numbers of inquiries and media mentions the company gets. That employee is also learning more about the Web as part of their work, and has been tasked with the operation of internal ICT systems, getting a feeling of job satisfaction by being assigned tasks regardless of age or number of years at the company.

Everyone at Naomi Co., Ltd.

Such efforts have raised employee motivation with the feeling that they can personally make the company better, so they think and act from the feeling that the company's affairs are their own. That has raised their ability to make proposals and sales pitches and improved labor productivity, leading to sales growth. President Komai says "Employee growth leads to company growth. I want to go on concentrating on personnel development, to raise employee awareness, and develop an environment that brings out employee independence."

Compact food fillers manufactured and marketed by the company

Section 4 Summary

This chapter gives an overview of the current state of various initiatives at SMEs, along with the initiatives' benefits and so on. The theme is using innovations in the use of human resources to increase labor productivity.

Section 1 used a questionnaire to check the state of employee multi-skill development and concurrent posting initiatives at SMEs. The current state is that a majority of enterprises are taking multi-skill development and concurrent posting initiatives, but there is still room for growth in such initiatives in non-manufacturing industries. The analysis also showed that multi-skill development and concurrent posting have concrete benefits. For example, they help level out overall work volume, which reduces the work burden on employees. However, at enterprises that were taking operational reform initiatives as touched on in Chapter 2, a higher percentage of respondents keenly felt these benefits. Therefore, when taking multi-skill development and concurrent posting initiatives, it appears that work process reform should be done as a prerequisite. It is thought to be important for enterprises to first confirm and internally share the issues they face in their work processes and only then pursue multi-skill development and concurrent posting.

On the other hand, taking multi-skill development and concurrent posting initiatives is not necessarily easy. Some of the issues involved are lack of time and personnel to promote the initiatives. In some cases, however, although multi-skill development and concurrent posting initiatives temporarily increased the burden on employees at some enterprises, these enterprises later achieved operational efficiencies as the initiatives became firmly established. In addition, a high percentage of enterprises that actively took multi-skill development and concurrent posting initiatives sensed that their labor productivity had risen. This too suggests that there are certain benefits for SMEs in taking multi-skill development and concurrent posting initiatives.

Section 2 analyzed Questionnaire Survey and statistical data to determine the current state, benefits, etc., of outsourcing implemented with the objective of increasing operational efficiency by using external rather than internal human resources. The stronger the sense of a labor shortage, the more enterprises tended to use outsourcing, and the higher the percentage of enterprises planning to use it proactively going forward. It is conjectured there are a certain number of enterprises with a labor shortage who plan to use external resources to make up for their internal labor shortage. It was also confirmed that enterprises that used outsourcing sensed their labor productivity had risen.

Section 3 examined human resources development initiatives as a means to increase the added value generated by their employees. Human resources development / talent development appear to have positive impacts, such as increased workplace productivity, providing a reminder of the great necessity of these initiatives. On-the-job training, off-the-job training, and enterprise support for employees' personal development costs are means of practicing human resources development / talent development. The analysis showed that even as enterprises emphasize on-the-job training, they are also proactively taking off-the-job training and personal development cost support initiatives. In addition, Chapter 1 mentioned that SMEs are emphasizing strengthening training and talent development as a way to deal with shortages of core personnel, and this point too suggests that human resources development / talent development are important initiatives. On the other hand, however, there are issues with human resources development / talent development, such as lack of time for human resources development and a shortage of personnel on both the teaching side and learning side. On the subject of core personnel, some SMEs stated forcefully that they would develop these personnel internally, but one can conjecture that combining this with securing core personnel from outside sources, as touched on in Section 3 of Chapter 1, would be effective.

This chapter has analyzed initiatives in the use of human resources to increase labor productivity at SMEs. Although conditions at SMEs, e.g., stressed work processes, may make it difficult to find the time to take initiatives to increase labor productivity, most of the enterprises that have taken them sensed they have earned the benefit of increased labor productivity. To close this chapter, it appears that enterprises that look to the future and make innovations in the use of human resources even though they lack time now will see those efforts lead to the growth of their business and bring new energy to SMEs in Japan as a whole.

Chapter 4

Realizing increased labor productivity through the use of IT

As we saw in Chapter 1, while there is a trend towards an improved business outlook among SMEs, at the same time, productivity is not increasing, and the labor shortage situation is intensifying. Against this background, SMEs are seeking to increase their labor productivity by means of the reform of business procedures that we looked at in Chapter 2, and the initiatives in the use of human resources that we looked at in Chapter 3. Following on from Chapters 2 and 3, Chapter 4 will look at the realization of increased labor productivity through the use of IT.

Section 1 in this chapter will consider the status of use of IT by Japanese SMEs and related issues, and provide some background to a focus on the use of cloud services and the application of IT in accounting and attendance management (back office functions). In Section 2, we focus on the linking of functions between different areas of business procedure, which increases the benefits of using IT, and look at how linking functions to promote increased efficiency results in increased labor productivity. Section 3 focuses on the use of IT in back office procedures, in this case accounting and attendance management, and explains the effectiveness of the use of cloud services in saving manpower. Section 4 then goes on to consider the use of IT to increase added value and the use of advanced IT.

Considered from the perspective of the relationship between IT and labor productivity, Sections 2 and 3 of this chapter consider labor input, the denominator of labor productivity, while Section 4 considers added value, its numerator.

Section 1 Status of use of IT among SMEs and related issues

To consider the status of IT use among SMEs, we will first look at the status of use of representative IT tools. Following this, we will look at the areas of business operations in which these tools have been introduced. Finally, we will consider three levels of introduction of IT in a comprehensive evaluation looking at SMEs as a whole.

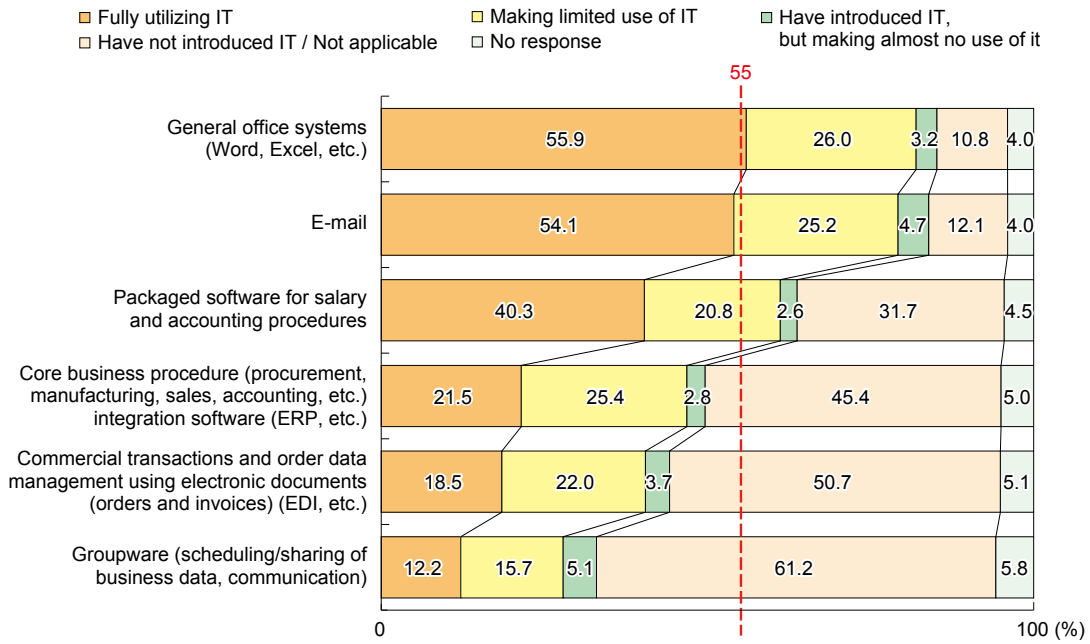
1. Status of use of IT

(1) Status of use of IT tools

Looking at the status of use of representative IT tools among SMEs based on the percentage of companies responding that they fully utilized specific tools, we find that about 55% of companies responded that they made use of general office systems and e-mail, approximately 40% of companies responded that they used accounting software, etc., and approximately 20% of companies responded that they used ERP[1] or EDI[2] (Fig. 2-4-1). These results show that Japanese SMEs are still making insufficient use of IT tools, and there is considerable margin for improvement in this area.

1) An acronym for enterprise resource planning. Here, ERP refers to software for the integration of core business procedures (procurement, production, sales, accounting, etc.).
2) An acronym for electronic data interchange. Here, EDI refers to electronic commerce and order management software.

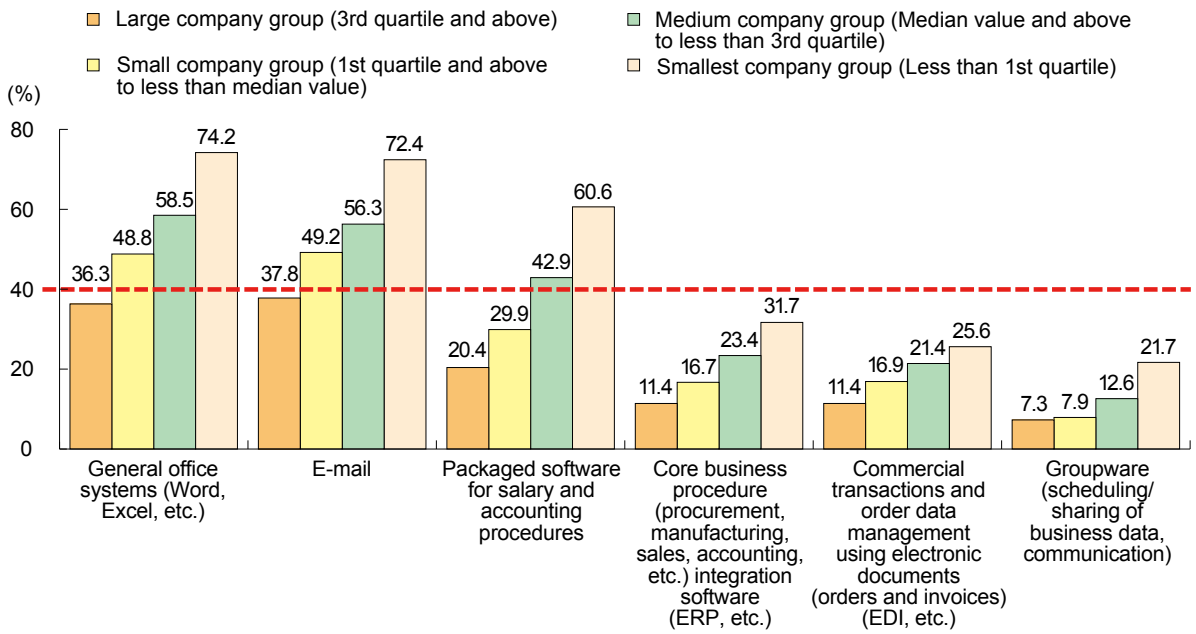
Fig. 2-4-1 Status of use of IT tools among SMEs



Source: National Association of Trade Promotion for Small and Medium Enterprises, *Questionnaire Survey concerning Management Issues faced by SMEs and Micro Businesses* (January 2016).

Looking at the ratio of companies responding that they fully utilized representative IT tools by volume of sales, we find that for all IT tools, the ratio decreases as the sales volume of the companies decreases (Fig. 2-4-2). Even general office systems and e-mail, the most widely used IT tools, are used by only less than 40% of the group of companies with the lowest volume of sales. Given this, promotion of the use of IT among companies with a low volume of sales could be expected to boost the level of use of IT tools among SMEs as a whole.

Fig. 2-4-2 Status of use of IT tools among SMEs (by volume of sales)



Source: National Association of Trade Promotion for Small and Medium Enterprises, *Questionnaire Survey concerning Management Issues faced by SMEs and Micro Businesses* (January 2016).
Note: Shows percentage of companies responding that they fully utilized a specific IT tool.

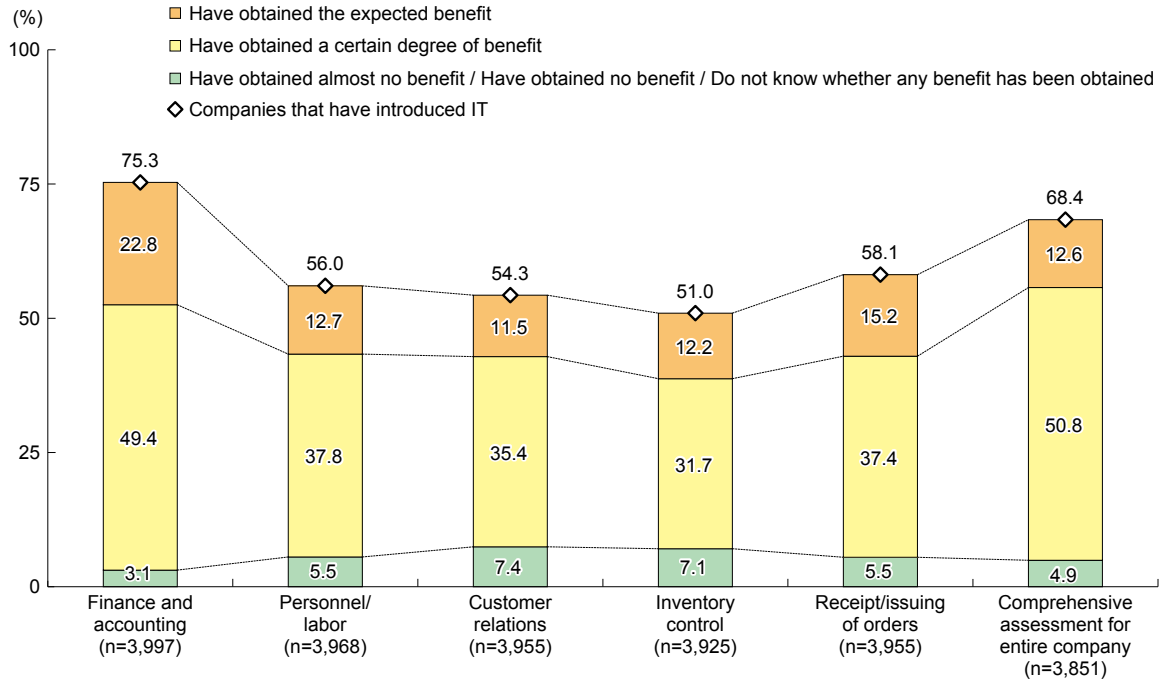
(2) Introduction of IT by area of business procedure

Up to this point, we have focused on the type of IT tools that SMEs have introduced. From this point onwards, we will consider the areas of business procedure in which the introduction of IT is proceeding. The analysis below will be based on the results of the *Survey on Initiatives for Increasing Productivity to Address Labor Shortages*[3].

Looking at the ratio of companies that have introduced the use of IT by area of business procedure, we find that the ratio is highest for the introduction of IT in the area of finance and accounting, at approximately 75%. The figures for other areas of business procedure all vary between 50 and 60% (Fig. 2-4-3). The ratio of companies responding that they have introduced IT but that they have not received any benefit is higher for the areas of customer relations and inventory control than for the three other areas of business procedure. We may conjecture that it is relatively difficult for SMEs to realize benefits from the introduction of IT that match their initial expectations.

3) A questionnaire survey conducted by Mitsubishi UFJ Research and Consulting Co., Ltd. on 30,000 SMEs in December 2017 (response rate 13.8%). It should be kept in mind that the subject of this survey was SMEs with at least 21 regular employees.

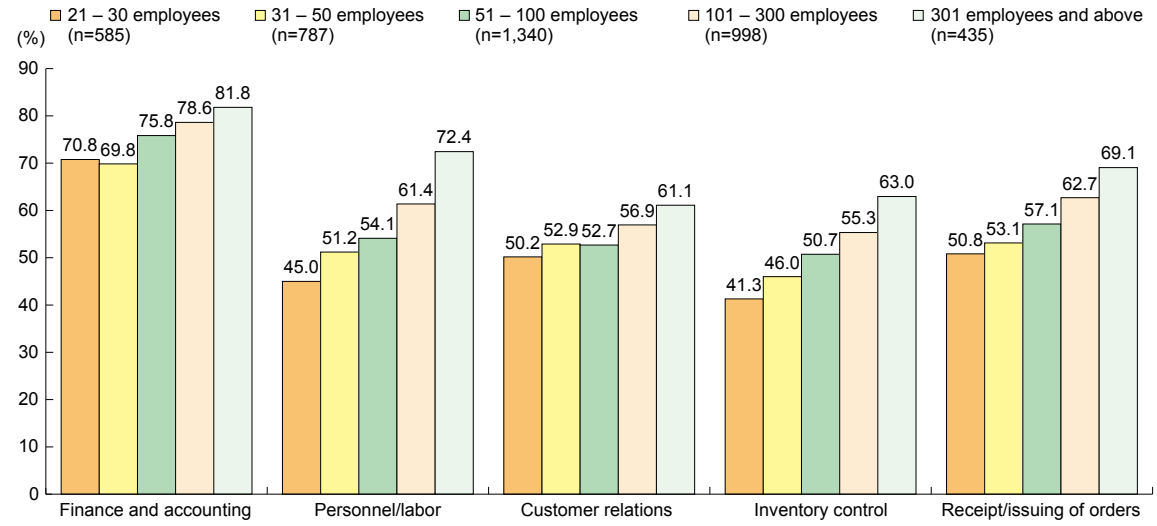
Fig. 2-4-3 Rate of introduction of IT, by area of business procedure



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Looking at the rate of introduction of IT by the number of employees, of the company, we see that the rate of introduction of IT in all areas of business procedure increases as companies become larger (Fig. 2-4-4).

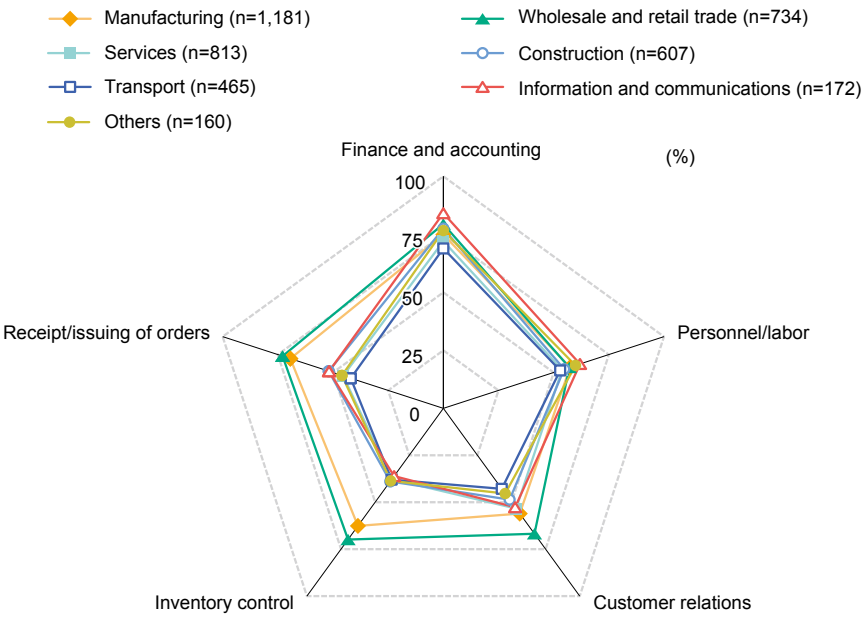
Fig. 2-4-4 Rate of introduction of IT in specific areas of business procedure (by number of employees)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Looking at responses by business sector, the ratio of companies that have introduced IT for receipt/issuing of orders and inventory control is highest in the manufacturing and wholesale and retail trade; the ratio of companies that have introduced IT for customer relations is highest in the wholesale and retail trade (Fig. 2-4-5). There is less variation between business sectors in the case of finance and accounting and personnel/labor. In Section 3 of this chapter, we will focus on the use of IT in back office functions (financial affairs/accounting and attendance management), where it can be considered possible to identify common elements that cut across the boundaries between industries.

Fig. 2-4-5 Rate of introduction of IT in specific areas of business procedure (by business sector)

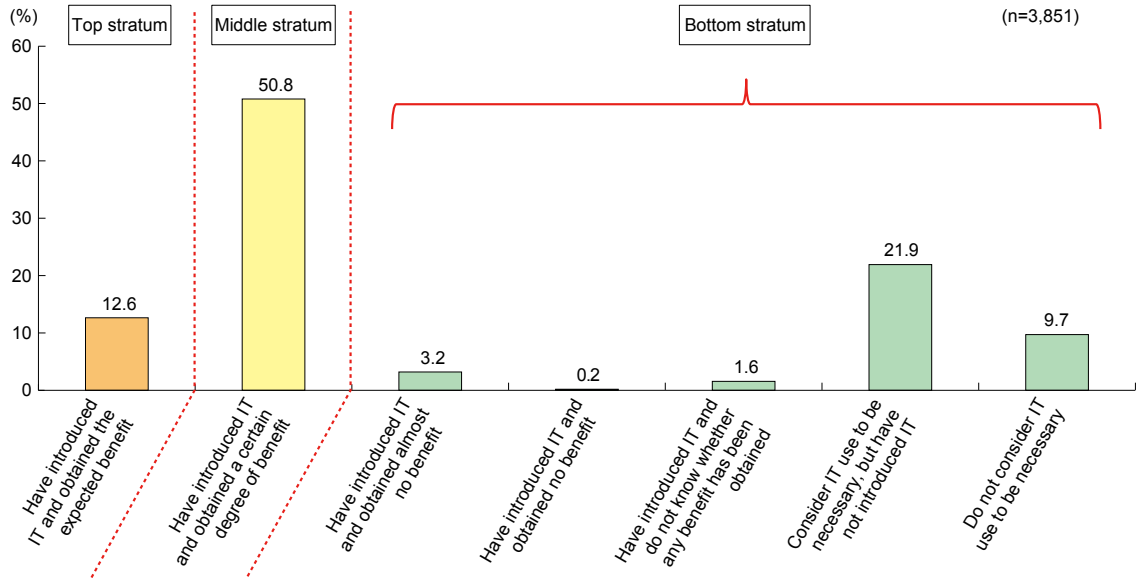


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

(3) Three levels of IT introduction identified by comprehensive evaluation for SMEs as a whole

Taking the results of a comprehensive evaluation for SMEs as a whole into consideration, we find that the largest percentage, approximately half of all companies, responded that they had introduced IT and that they had obtained a certain degree of benefit (Fig. 2-4-6). Positioning this stratum in the middle, we can identify three levels of IT introduction: A top stratum of companies that responded that they had introduced IT and obtained the expected benefit, a middle stratum of companies that responded that they had introduced IT and obtained a certain degree of benefit, and a bottom stratum of companies encompassing all other responses. The analysis in this chapter will utilize these three categories.

Fig. 2-4-6 Necessity for use of IT, status of introduction of IT, and benefits of introduction (Comprehensive evaluation for all companies)

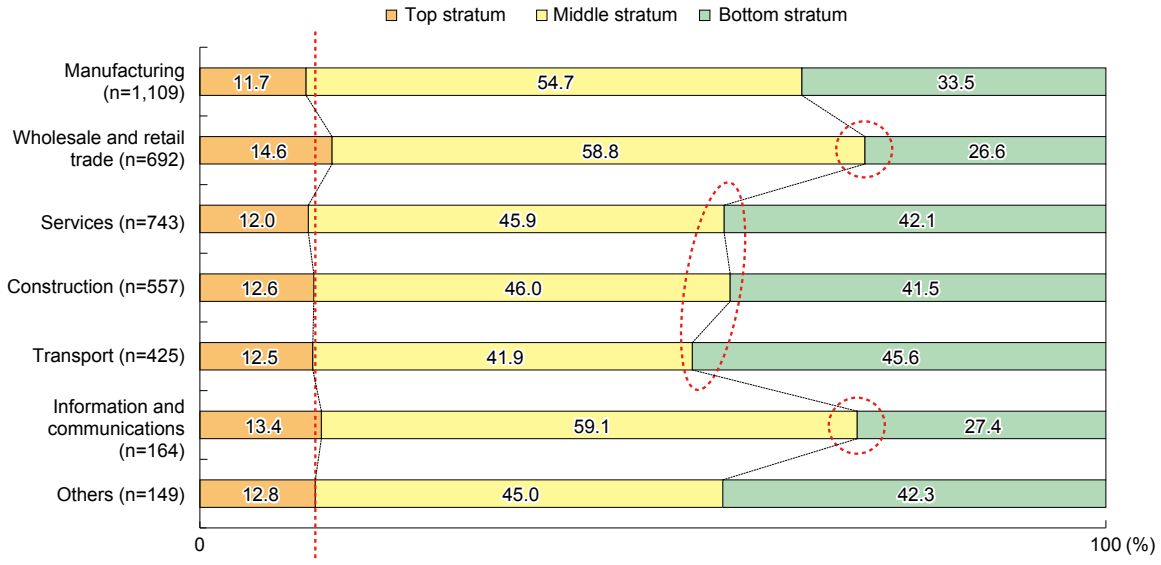


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

To continue, we will consider the three levels by industry, number of employees, age of management, and years since the company's establishment in order to determine the types of companies that make up the majority of the top and middle strata.

When considered by industry, little difference is observed in the ratios of companies making up the top stratum (Fig. 2-4-7). In the middle stratum, the percentage of companies in the wholesale and retail trade and information and communications sectors is highest, while the percentage of companies in the services, construction, and transport sectors is relatively low.

Fig. 2-4-7 Three levels of IT introduction (by industry)

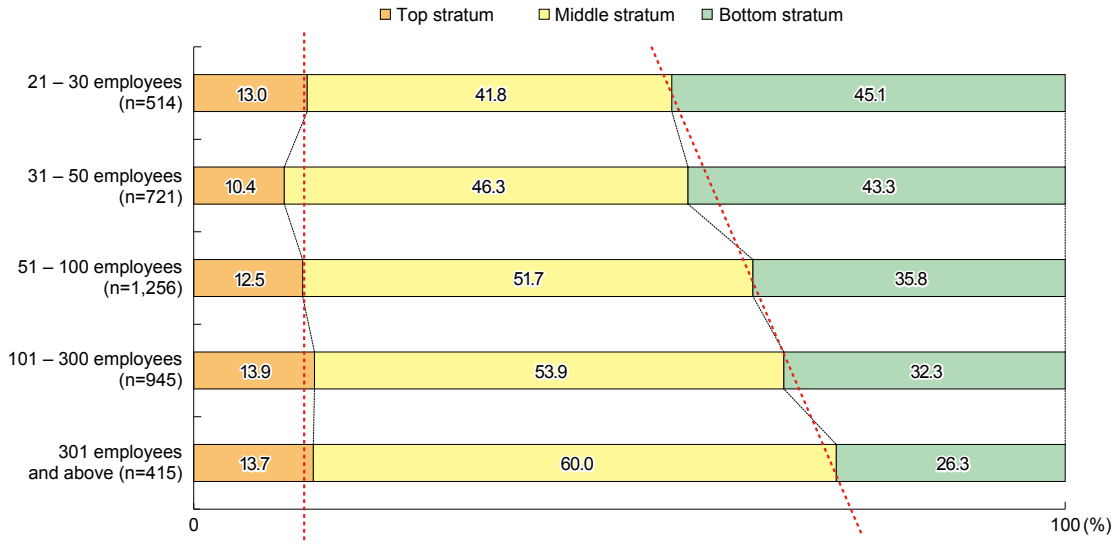


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Note: For our comprehensive evaluation of SMEs as a whole, we classified companies responding "We have introduced IT and obtained the expected benefit" as the top stratum, companies responding "We have introduced IT and obtained a certain degree of benefit" as the middle stratum, and companies offering any other response as the bottom stratum.

Considered by the number of employees, little difference is observed in the top stratum of companies (Fig. 2-4-8). The proportion of companies in the middle stratum increases as the number of employees increases.

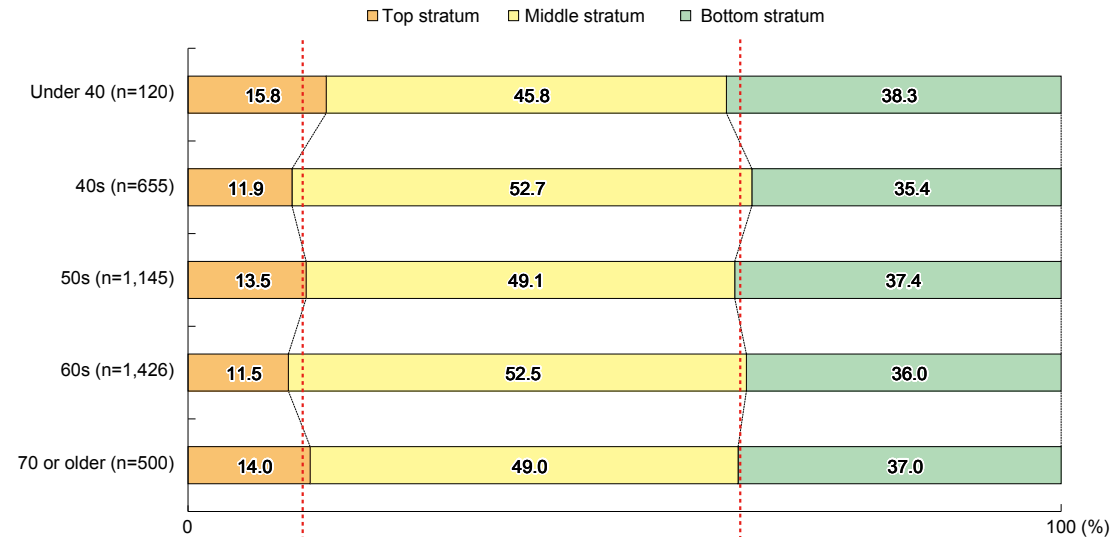
Fig. 2-4-8 Three levels of IT introduction (by number of employees)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: For our comprehensive evaluation of SMEs as a whole, we classified companies responding "We have introduced IT and obtained the expected benefit" as the top stratum, companies responding "We have introduced IT and obtained a certain degree of benefit" as the middle stratum, and companies offering any other response as the bottom stratum.

When the results are considered by the age of management, no particular difference in the ratio of companies is observed by age either in the top stratum or the middle stratum (Fig. 2-4-9).

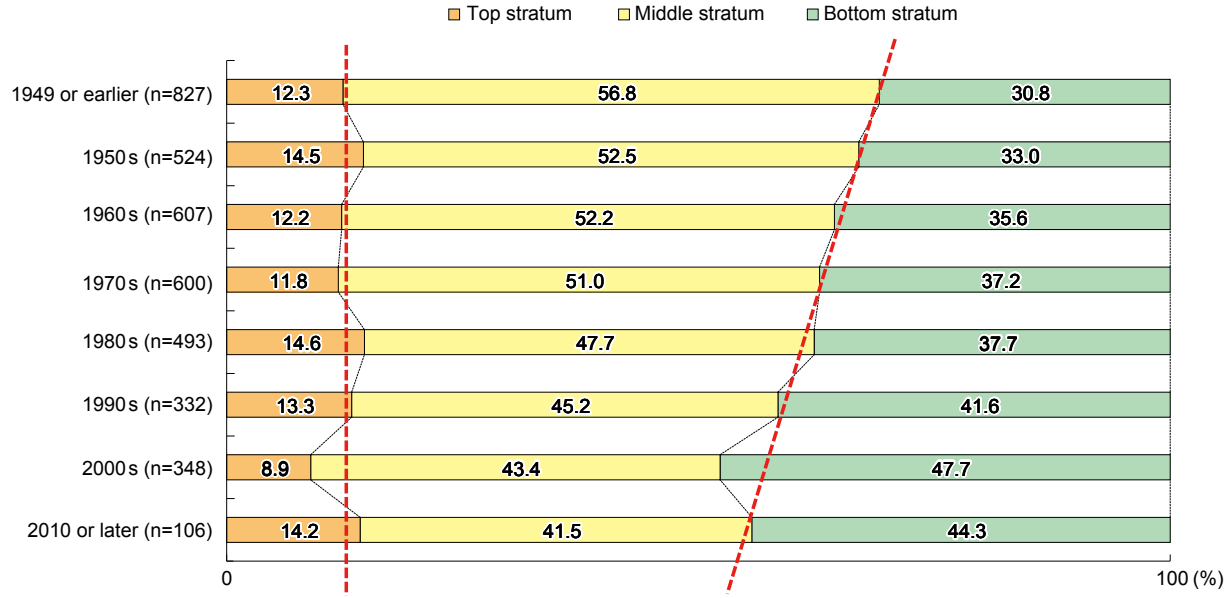
Fig. 2-4-9 Three levels of IT introduction (by age of management)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: For our comprehensive evaluation of SMEs as a whole, we classified companies responding "We have introduced IT and obtained the expected benefit" as the top stratum, companies responding "We have introduced IT and obtained a certain degree of benefit" as the middle stratum, and companies offering any other response as the bottom stratum.

When the results are considered by the number of years since the company's establishment, no difference in the ratio of companies is observed in the top stratum (Fig. 2-4-10). The ratio of companies in the middle stratum increases with the number of years that the company has been in existence.

Fig. 2-4-10 Three levels of IT introduction (by the number of years since the company's establishment)



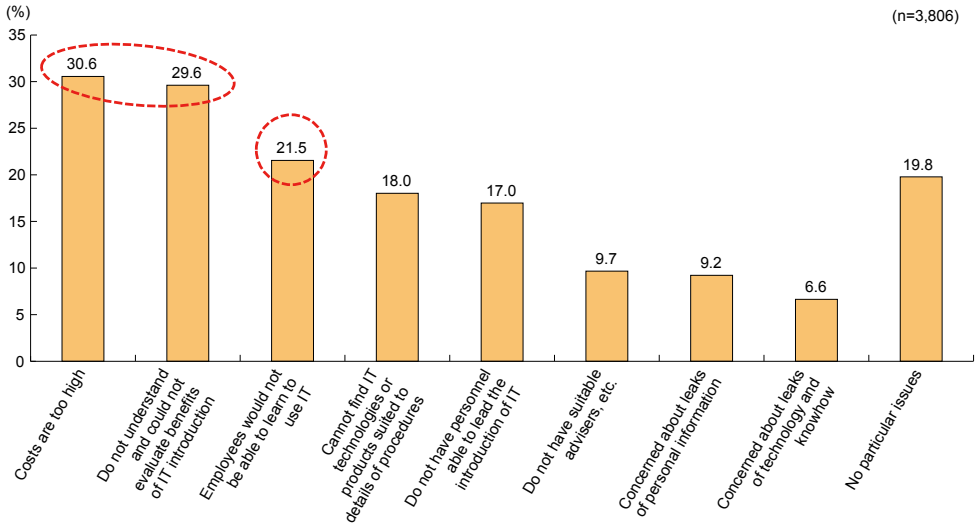
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: For our comprehensive evaluation of SMEs as a whole, we classified companies responding "We have introduced IT and obtained the expected benefit" as the top stratum, companies responding "We have introduced IT and obtained a certain degree of benefit" as the middle stratum, and companies offering any other response as the bottom stratum.

2. Issues of IT introduction and utilization

(1) Issues encountered when attempting to introduce and utilize IT

Looking at the highest proportion of responses in relation to issues encountered when attempting to introduce and utilize IT, "Costs are too high" and "Do not understand and could not evaluate the benefits of IT introduction" were the most frequent responses at around 30% each, followed by "Employees would not be able to learn to use IT," at around 20% (Fig. 2-4-11). Cost-effectiveness and personnel-related concerns are the two major issues here.

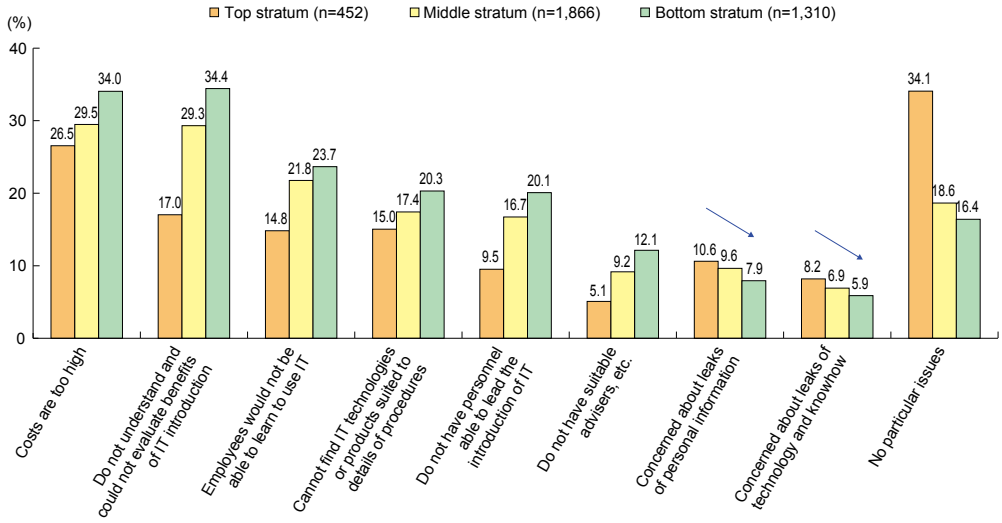
Fig. 2-4-11 Issues encountered when attempting to introduce and utilize IT



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. Companies responding "Other" are not shown.

When we consider the issues that companies encounter when attempting to introduce and utilize IT by the three levels of IT introduction that we looked at in the previous item, we find that this trend does not change significantly either for the top stratum of companies, for which the introduction of IT has been effective, or the bottom stratum of companies, which have not made progress with the introduction of IT, but the ratio is especially high in bottom stratam (Fig. 2-4-12). We can conclude that cost-effectiveness and the IT skills of company staff are significant barriers to the introduction of IT. On the other hand, since a larger percentage of top stratum enterprises than bottom stratum enterprises responded that they are "concerned about leaks of personal information" and "concerned about leaks of technology and knowhow," it could be said that these are issues that emerge as IT introduction progresses.

Fig. 2-4-12 Issues encountered when attempting to introduce and utilize IT (by three levels of IT introduction)

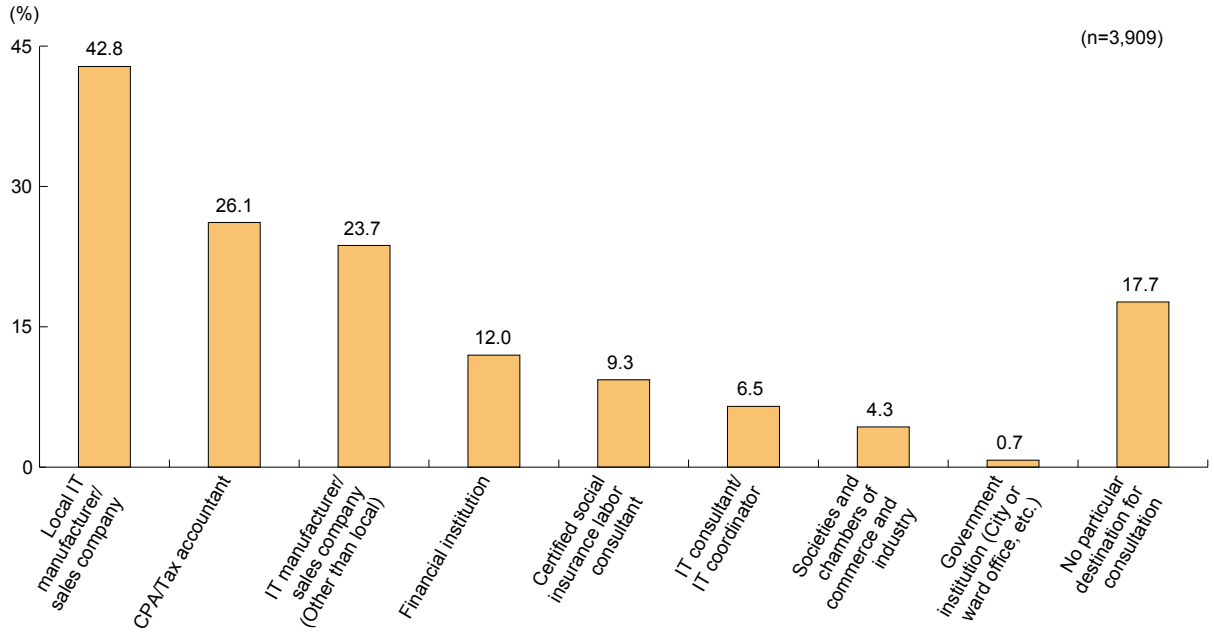


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. Companies responding "Other" are not shown.
3. For our comprehensive evaluation of SMEs as a whole, we classified companies responding "We have introduced IT and obtained the expected benefit" as the top stratum, companies responding "We have introduced IT and obtained a certain degree of benefit" as the middle stratum, and companies offering any other response as the bottom stratum.

(2) Regular destinations for consultation regarding IT outside company

Organizations and entities able to provide support and explain the benefits of IT introduction are necessary in order to respond to the issue of companies that "do not understand and could not evaluate benefits of IT introduction." When companies were asked whether they had a regular destination outside the company for IT-related consultation, the most frequent response was "Local IT manufacturer or sales company," at around 40% of companies, followed by "CPA/Tax accountant" and "IT manufacturer or sales company (Other than local)," at around 25% (Fig. 2-4-13).

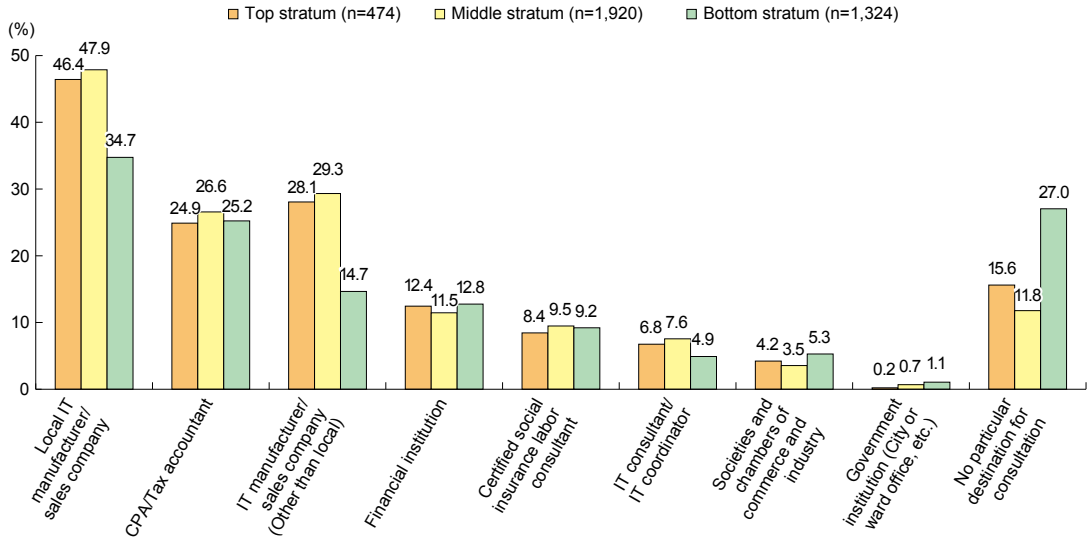
Fig. 2-4-13 Regular destination for IT-related consultation outside company



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. Companies responding "Other consultation destinations" are not shown.

Even when looking at responses by the three levels of IT introduction, the trend for "Local IT manufacturer or sales company," "CPA/Tax accountant," and "IT manufacturer or sales company (Other than local)" to be the most frequent responses remains unchanged. However, the response "No particulation destination for consultation" stands out among the bottom stratum (Fig. 2-4-14). Clearly, in order for SMEs to proceed with the introduction of IT, it is important first for them to find a destination for consultation, and, second, to be informed by this organization or entity regarding the benefits to be expected from the introduction of IT and how they should be evaluated.

Fig. 2-4-14 Regular destination for IT-related consultation outside company (by three levels of IT introduction)

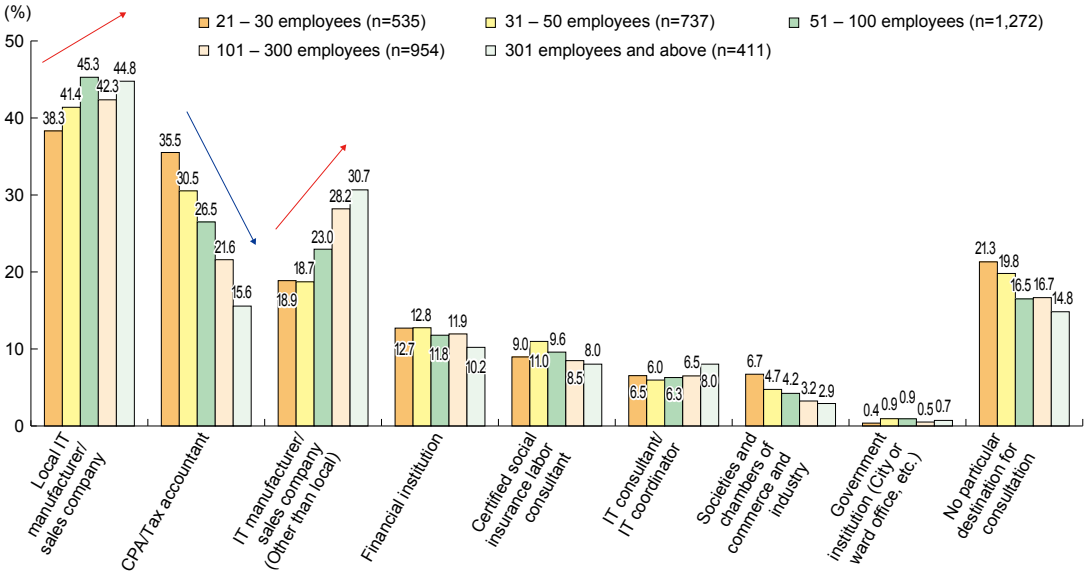


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes:
1. Total does not always equal 100% as multiple responses were possible.
2. Companies responding "Other consultation destinations" are not shown.
3. For our comprehensive evaluation of SMEs as a whole, we classified companies responding "We have introduced IT, and we have obtained the expected benefit" as the top stratum, companies responding "We have introduced IT, and we have obtained a certain degree of benefit" as the middle stratum, and companies offering any other response as the bottom stratum.

When results are considered by number of employees, we find that the ratio of companies responding "CPA/Tax accountant" increases as the number of employees decreases (Fig. 2-4-15). We can conjecture that for companies with a small number of employees, access to a local IT maker or sales company, in addition to a destination for regular management-related consultations, etc., would be an important key allowing the introduction of IT.

Fig. 2-4-15 Regular destination for IT-related consultation outside company (by number of employees)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes:
1. Total does not always equal 100% as multiple responses were possible.
2. Companies responding "Other consultation destinations" are not shown.

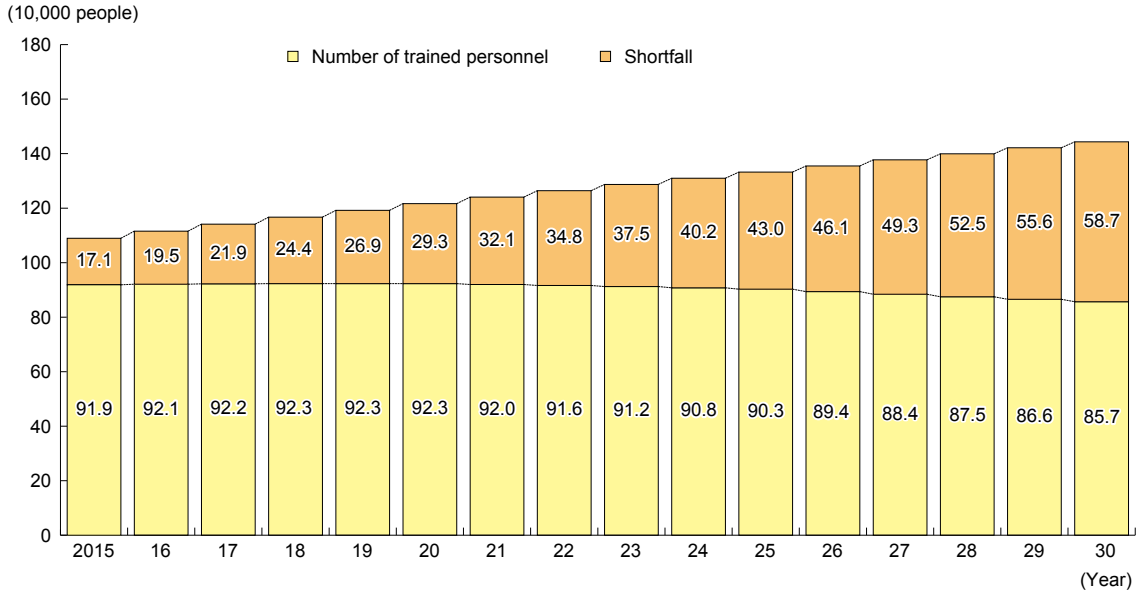
Up to this point, we have looked at the issues encountered by SMEs in introducing IT, in addition to the nature of the organizations and entities that they consult with regarding IT. Based on the finding that the biggest issue faced by SMEs is the burden of cost, the use of cloud services can be considered an effective means of promoting future IT introduction. The following four benefits of cloud services can be indicated[4].

[Benefits of utilization of cloud services]

- No necessity for the company to possess servers or other equipment. No need for permanent hiring of IT engineers.
  → Introduction is comparatively easy.
- Initial cost of introduction is low (From several thousand yen per month; in the case of on-premises IT systems[5], introduction would cost tens of millions of yen)
  → Even if the introduction is a failure, the company can pull out.
- By linking data, it becomes possible to generate sales data from reservation data, enabling accounts to be settled every day.
  → Provides managers with time to devote to thinking about management.
  → Provides opportunity for managers to fully grow into the role of "manager" while considering daily sales.
- Cloud services are easier to use as a tool for inter-company cooperation.

Apart from mitigation of the cost burden, the lack of necessity for permanent hire of engineers is a major benefit of the utilization of cloud services. Fig. 2-4-16 shows the results of estimates of the scale of the shortfall of IT-trained personnel, indicating that the shortfall is expected to increase. If we assume a strong possibility that IT engineers will flow to the IT industry and large companies in the future, it will become even more difficult for SMEs that are not part of the IT industry to secure IT engineers for the development, operation and management of IT, and this has the potential to become a serious issue.

Fig. 2-4-16 Results of estimates of the scale of the shortfall of IT-trained personnel



Source: METI, *Report of Survey concerning Latest Trends among IT Human Resources and Future Estimates* (2016).
Notes: 1. Population of IT-related industries estimated on the basis of the number of employees of IT-related industries, by age, at the time of the survey and projections of future demographic trends, etc.
2. The personnel shortfall is based on the "median scenario," assuming a market growth rate of 1.5% – 2.5%.

Based on the considerations above, in the next section we focus on choices available for SMEs other than system development as measures to enable the utilization of IT. We adopt a particular focus on business package software (for computer installation) and the use of cloud services, and confirm their effectiveness in increasing operational efficiency.

4) Smart SME Study Group, SME Agency, *Summary and Overview of Points of Focus* (June 2017).
5) Unlike the utilization of cloud services, this refers to ownership of servers and other equipment by the company itself.

Column 2-4-1 Project to support the Introduction of IT in order to Increase Productivity among Services Sector SMEs

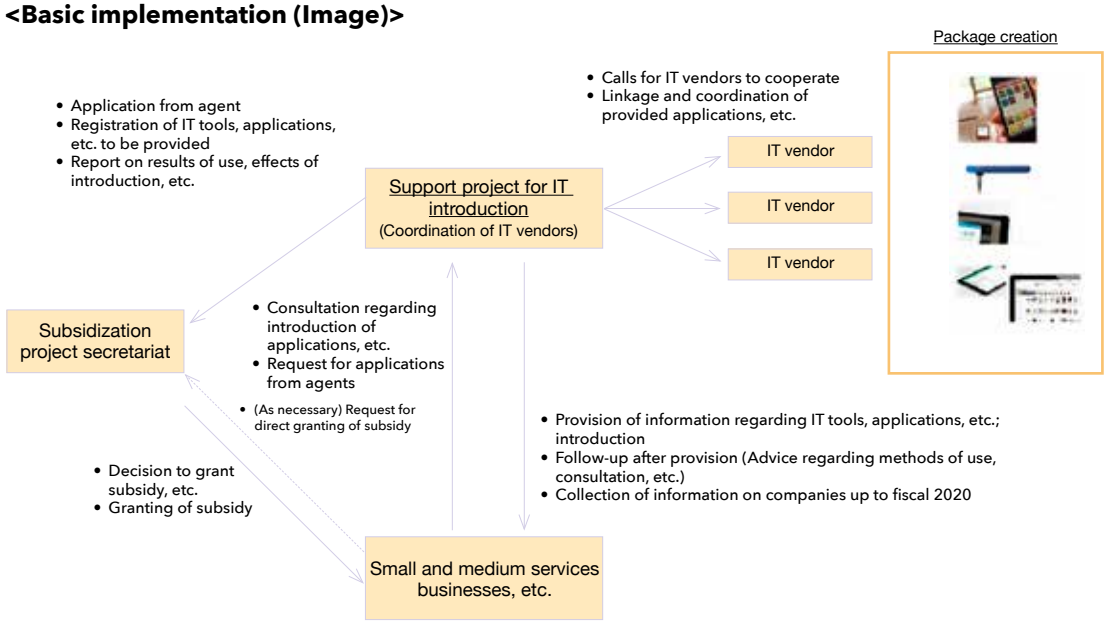
The Japanese government has set a target of realizing a 2.0% rate of growth of labor productivity in the service sector by 2020. In order to boost productivity in the service sector and other industries, the government is providing support for the introduction of IT by SMEs and small businesses to contribute to increased efficiency in back office procedures and other operational areas and the realization of added value (increased sales), for example through the acquisition of new customers.

[Overview of project in fiscal 2016]

Targets	SMEs and small businesses (In addition to companies in the services sector, including dining, accommodation, wholesale and retail, transportation, medical, nursing care, and child-minding, businesses in sectors including manufacturing and construction are also targets).
Details of support	Support for the introduction of IT (software and cloud services, etc.) by SMEs and small businesses to contribute to increased efficiency in back office procedures and other operational areas and the realization of added value (increased sales), for example through the acquisition of new customers. Vendors (IT companies) supplying IT tools are required to provide advice at the time of introduction and following introduction regarding appropriate utilization of the tools, to check on the effects produced by the tools following introduction (rate of increase in labor productivity, etc.), and to conduct follow-ups and provide other shoulder-to-shoulder assistance. The subsidization project organization devises means to maximally increase the effect of introduction of the IT tools. **(Basic requirements, etc.)** • Subjects of subsidy IT tools (software, services, etc.) that are registered and made public on the subsidy homepage. Hardware is not subject to the subsidy. (Ex.) The cost of software packages, the cost of introduction and set-up of cloud services, etc. • Amount of subsidy: ¥200,000 - ¥1 million • Subsidization ratio: Two-thirds

Fig. Column 2-4-1 (1) Image of implementation of project for support of IT introduction to realize increased productivity in the services sector

<Basic implementation (Image)>



[Results of implementation in fiscal 2016 (Based on number of companies adopting scheme)]

<Number of companies adopting scheme by prefecture>

Prefecture	Number of companies	Prefecture	Number of companies	Prefecture	Number of companies
Hokkaido	516	Ishikawa	216	Okayama	338
Aomori	116	Fukui	95	Hiroshima	360
Iwate	116	Yamanashi	65	Yamaguchi	146
Miyagi	213	Nagano	267	Tokushima	108
Akita	44	Gifu	262	Kagawa	341
Yamagata	93	Shizuoka	457	Ehime	152
Fukushima	137	Aichi	873	Kochi	74
Ibaraki	201	Mie	226	Fukuoka	562
Tochigi	156	Shiga	134	Saga	96
Gunma	238	Kyoto	347	Nagasaki	107
Saitama	480	Osaka	1,239	Kumamoto	217
Chiba	429	Hyogo	569	Oita	125
Tokyo	2,280	Nara	164	Miyazaki	89
Kanagawa	658	Wakayama	145	Kagoshima	209
Niigata	175	Tottori	82	Okinawa	141
Toyama	150	Shimane	93	Total	14,301

<Number of companies adopting scheme by number of employees>

Number of employees	5 or less	6 - 50	51 - 100	101 or more
Number of companies	6,570	6,359	855	488

<Number of companies adopting scheme by industry sector>

Sector	Number of companies
Restaurant	1,586
Accommodation	174
Wholesale and retail trade	2,345
Transportation	285
Medical	1,505
Nursing care	453
Child-minding	139
Other (Manufacturing, construction, etc.)	7,814

<Number of companies adopting scheme for each grant amount>

Grant amount	Number of companies
¥200,000–¥290,000	1,991
¥300,000–¥390,000	1,345
¥400,000–¥490,000	1,696
¥500,000–¥590,000	820
¥600,000–¥690,000	1,074
¥700,000–¥790,000	2,670
¥800,000–¥890,000	460
¥900,000–¥1 million	4,245

Column 2-4-2 International Comparison of Status of Use of IT among SMEs

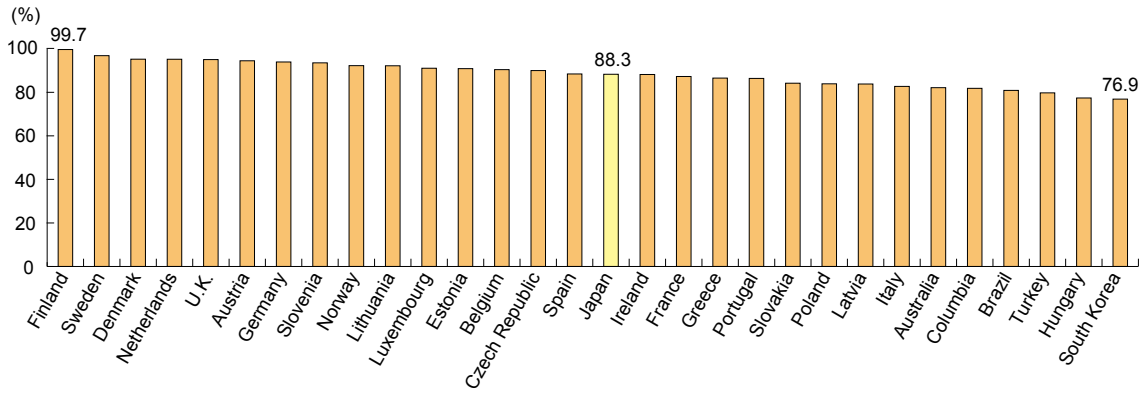
It is not easy to compile data enabling a systematic and comprehensive international comparison of the status of use of IT, but the index "ICT Use" in "Technology Readiness Level" in the World Economic Forum's Global Competitiveness Index 2017-2018 provides one yardstick. The report ranks Japan 19th of 137 countries in terms of the indicator "ICT Use."

With regard to the status of IT usage at the company level, the data provided by the OECD's "ICT Access and Usage by Businesses" enables international comparison. Looking at the status of establishment of a homepage (Fig. Column 2-4-2 (1)), the status of sales using the Internet (Fig. Column 2-4-2 (2)), the status of use of cloud services (Fig. Column 2-4-2 (3)), and the status of use of social media (Fig. Column 2-4-2 (4)) for SMEs[6] with 50-249 employees formulated using this database, we find that the use of social media is conspicuously low among Japanese companies when compared internationally.

Focusing on the status of social media usage, the "Communications Usage Trends Survey" published by the Ministry of Internal Affairs and Communications (the source of the OECD data for Japan) indicates that, by industry sector, social media usage is high in the "Financial/insurance," "Wholesale/retail," and "Service and other industries" sectors. With regard to purpose of use, the main purposes are "Publicize/promote products or events," "Provide periodic information" and "Company profile/recruiting." This may suggest that while the usage of social media services for the purpose of promoting sales has become entrenched to a certain degree in industry sectors that handle products and services for consumers, from an international perspective, there is still room for further social media diffusion.

The scale of the e-commerce market in Japan is ¥15.1 trillion in the BtoC market and ¥291 trillion in the BtoB market (Ministry of Economy, Trade and Industry, FY2016 Establishment of Foundations for Transition to Information/Services Focus in Japan's Economy and Society (Market Survey of e-commerce Transactions)), and the market is growing every year. While the implementation rate of sales using the Internet was 21.9% as of 2015, this figure can be expected to increase as the scale of the market expands.

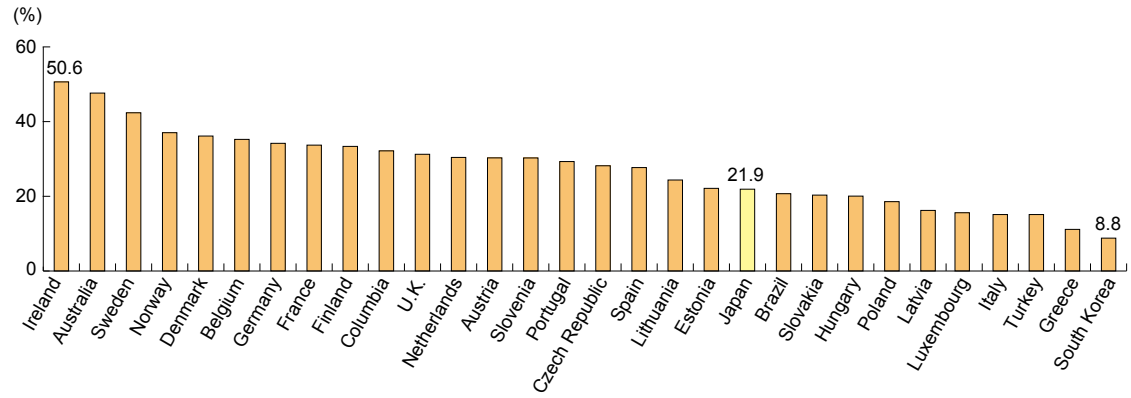
Fig. Column 2-4-2 (1) International comparison of status of establishment of homepage (2015)



Source: Formulated based on OECD, *ICT Access and Usage by Businesses*.
Notes: 1. Uses data for "Businesses with a website or home page" for 2015.
2. With the exception of Japan and Canada, the definition of an SME is a company with between 50 and 249 employees. In the case of Japan, the number of employees is 100 to 299, and in the case of Canada, the number is 50 to 299.

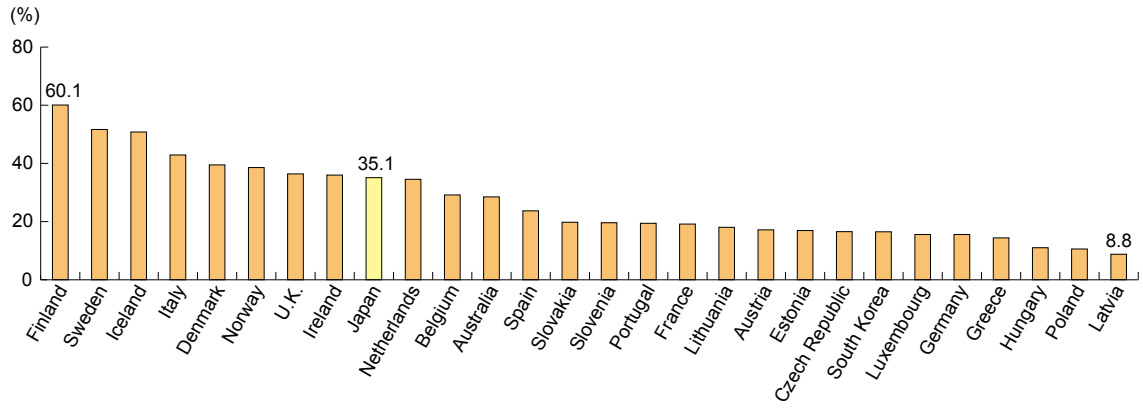
6) As a rule, an SME is defined in the OECD database as a company with between 50 and 249 employees; in the case of Japan, the figure is 100 to 299 employees, and in the case of Canada it is 50 to 299 employees.

Fig. Column 2-4-2 (2) International comparison of status of implementation of sales using the Internet (2015)



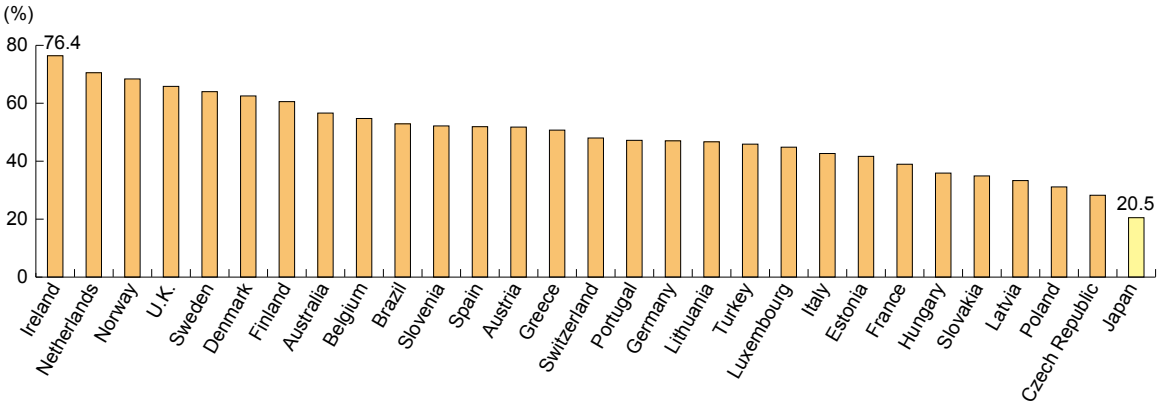
Source: Formulated based on OECD, *ICT Access and Usage by Businesses*.
Notes: 1. Uses data for "Businesses receiving orders over computer networks" for 2015.
2. With the exception of Japan and Canada, the definition of an SME is a company with between 50 and 249 employees. In the case of Japan, the number of employees is 100 to 299, and in the case of Canada, the number is 50 to 299.

Fig. Column 2-4-2 (3) International comparison of status of usage of cloud services (2014)



Source: Formulated based on OECD, *ICT Access and Usage by Businesses*.
Notes: 1. Uses data for "Businesses purchasing cloud computing services" for 2014.
2. With the exception of Japan and Canada, the definition of an SME is a company with between 50 and 249 employees. In the case of Japan, the number of employees is 100 to 299, and in the case of Canada, the number is 50 to 299.

Fig. Column 2-4-2 (4) International comparison of status of usage of social media (2015)



Source: Formulated based on OECD, *ICT Access and Usage by Businesses*.
Notes: 1. Uses data for "Businesses using social media" for 2015.
2. With the exception of Japan and Canada, the definition of an SME is a company with between 50 and 249 employees. In the case of Japan, the number of employees is 100 to 299, and in the case of Canada, the number is 50 to 299.

Case 2-4-1 Marutomo Seika Co., Ltd.

A company using tablet computers to streamline what had been the manual task of filling out invoices

Marumoto Seika Co., Ltd. (employees: 22; capital: ¥24 million), located in Kanazawa City, Ishikawa Prefecture, is a broker in the Kanazawa City Central Wholesale Market that handles primarily fruits and vegetables cultivated in Kanazawa City and popularly known as "Kaga vegetables" such as red kuri squash, sweet potatoes, and lotus root. Until lately, this company had employed a core system for handling accounting into which information about transaction basics would be input and through which data on sales and the like would be managed. However, the work of inputting data from invoices was quite laborious.

A staff member handling input on a tablet

Originally, sales staff would hastily make notes on the results of auctions that began from 6 a.m. This information would then be transcribed manually to invoices, and two administrative staffers would input that information into Marumoto Seika's core system. The task of inputting the 300 or more invoices would take until around noon to complete, and it was a given that the sales staff would then have to work for long hours to confirm that the data had been input correctly. The burdens on the administrative staff who handled the inputs were similarly immense. Then, the company hit upon the idea of using the tablet computers that had just started to become widely available. Previously, they had thought about having the sales staff switch over the task of writing up invoices to inputting it directly into the core computer system. However, they hesitated because many of the sales personnel were older workers who found computers to be difficult and also because of the costs of getting dedicated equipment.

The input screen features an easy-to-use interface

Finally, Marumoto Seika reached the point where they discussed using tablets with a systems company with which they were familiar. That company came up with a prototype in one week, and they managed to put them into operation after about a month and a half. It cost ¥1.5 million (covering system development and tablet purchases) to bring them online. They purchased four tablets to be shared by nine people. Mindful that older sales staff will be using the devices, the system uses big font sizes, large cursors, and also come with Bluetooth-connected numeric keypads. The sales personnel input into the tablets information about vegetable varieties, quantities, sums of money, and origin, and the data gets sent to the computers in the business office. Thanks to the ease of operation, the staff quickly got used to them and the amount of time required for inputting invoices was reduced by one-third. Separate lists for each salesperson can be printed from the computer, making it possible to quickly check the details after the input work is finished. The result has been to cut down the amount of time the sales staff has to spend on this task by as much as two hours. Such improvements to the working environment also led to making new hires. It also had a significant impact in cost-saving terms, keeping labor costs for the administrative staff and printing costs for special invoice forms down to around ¥4 million annually.

"Keeping our focus tightly on using tablets to fill out invoices with this initiative kept our costs down and had a tremendous impact," says Marumoto Seika President Ryotaro Kitagata. "One good aspect of the system we introduced is that we can easily features to it. Using the data we have should be even more useful for improving other work we do like drafting statements of delivery."

Case 2-4-2 Marumikoji Honten Co., Ltd.

A company that has applied IT to quality control and business building, and is achieving added-value improvements

Marumikoji Honten Co., Ltd. (employees: 24; capital: ¥3 million), located in Soja City, Okayama Prefecture, is a manufacturer and seller of brewed foods that use ***koji***—a yeast starter common to Japanese cuisine—such as miso and amazake and, with the value it places on healthiness, is committed to adhering to natural brewing. Founded in 1950, this company has worked to brew ***koji*** with a premium placed on quality. It created its own unique brewing methods that get the most out of the power hidden in nature by using such elements as the high-quality bincho charcoal and ionized water in its manufacturing process. Awareness of such initiatives on their part has spread to the extent that today they get orders from all around the country. The company has also been using IT in its manufacturing and sales operations in order to supply their customers with even better products, and in 2016 it received the Okayama IT Management Power Prize.

IT-based plant management

Managing temperatures when the ***koji*** is fermenting is the most important part of the manufacturing process as it governs the quality of the final product. Previous generations would observe the condition of the ***koji*** and make adjustments based on experience and intuition. However, Marumikoji's current president Keizo Yamabe introduced machinery that could record temperatures continuously. The company accumulated temperature data from each process and turned the manufacturing know-how into something that could be seen with the naked eye. Subsequently, the company linked the temperature sensors to the air-conditioning equipment in order to control the temperature of the ***koji*** that had been made and pushed ahead with automation that would generate email notifications whenever any malfunctions had been detected. These automation efforts reduced the burdens produced by long working hours to handle matters such as managing temperatures during the night and also helped keep ***koji*** quality stable.

Using the CTI system to handle phone calls

In the sales area, in light of the efforts that Marumikoji had already poured into selling their products directly to individuals via mail order and so forth, the company introduced a computer telephony integration (CTI) system to help firm up relations with customers and improve customer service. Staff were now able to refer to purchasing records and the like displayed on the screen and respond to customers quickly and in detail. However, the orders come in diverse forms including telephone, fax, email, and e-commerce websites. Considerable effort is involved when it comes to transcribing the orders that still come by email to invoices. In order to reduce the burden this creates, last year Marumikoji adopted sales management system for uniformly managing the orders. They expect this new system will also boost their marketing activities, with one such application being the handling of direct mail. Previously, the company sent direct mail to all of its customers. However, the new system makes it possible to refine the focus of the mailings based on order history and the company expects to be able to offer more refined promotions tailored to their customers. Furthermore, they are also engaged in initiatives to increase connections with their customers through social media and a "***Koji*** Community" website the company itself operates.

As a result of this series of initiatives, Marumikoji has been able to increase its sales over the past three years by 25%. They have also seen internet sales alone rise by 43%. "We are sticklers about using our own manufacturing techniques that are unstinting about the work involved in order to make foods that are good for your health," explains President Yamabe. "Using IT to automate tasks was crucial for both that and to reduce the loads imposed on our employees. Also, more and more people use the internet, and through social media our points of contact with people interested in ***koji*** have increased. I want to put the internet and IT to work toward developing products suited to new demand in ways that will be useful to people trying to stay healthy."

Case 2-4-3 Eigrain Co., Ltd.

A company that built long-term ties with a local IT vendor and moved steadily forward on putting IT to work despite having no employees well-informed about such technology

Eigrain Co., Ltd. (employees: 70; capital; ¥3 million), located in Hachioji City, Tokyo, is a bread maker and retailer. It has a production plant and operates two bakeries that sell its own freshly made breads. Based on company president Toshio Iwata's idea that the crucial words when it comes to the daily diet are "secure, safe, and healthy," Eigrain makes bread that is easy on the body with the company's particularity when it comes to the ingredients and water it uses. The company and its products are popular in their locality.

One of Eigrain's shops
(Stone-Furnace Bakeries Eigrain, Izumizuka Shop)

While Eigrain does not have any employees who are particularly well-informed when it comes to IT, it has obtained assistance from a local vendor of such equipment. With their help, Eigrain has been steadily bringing more IT and little by little has been improving its efficiency. Eigrain's history with the local IT vendor goes back approximately 20 years to when the bread maker moved into its current production plant. Eigrain and the sales staff at the IT vendor face the same day-to-day business challenges. They were able to build up a relationship that made it easy to get suggestions from the sales staff, and last year Eigrain received a proposal that they take advantage of an IT grant. This was the trigger for bringing IT into the picture.

Toshio Iwata, President

After looking into matters with the vendor's sales staff, Eigrain adopted a cloud-based system for handling salaries and employment matters. Previously, the shops would manage attendance information on paper, which created the tedious task of having to type that information into the company's software for handling wages. After adopting the system, thanks to linking wage and work management the company was able to automate the process running from totaling up attendance data for each shop to updating the wage management software to reflect that with the result that the time required for calculating worker pay was greatly shortened.

Measured in worker days, the task of managing monthly wage and work matters was reduced from seven to three. In addition to reducing labor costs, the office manager who had been handling these matters previously now had more time to devote to business directly related to sales and administration. This IT had been adopted by taking advantage of a grant for such purposes, with the total cost for the cloud-based salary and employment management software and services for helping bring the system into use coming to approximately ¥1.8 million.

Eigrain is further looking with the IT vendor's sales staff into linking the cloud-based salary and employment management software with its internet banking workflow. Currently, the workflow involves looking at a screen for the cloud services, and then typing information in at the internet banking screen. The expectation is that if they can be linked together it will lead to further improvements in work productivity.

Office manager Makiko Iwata explains, "Employing someone who is well-versed about IT would be ideal, but for a company of our size that would still be difficult. We've handled business affairs to date by getting help from a variety of people. With IT it's the same. Having long-term win-win relationships is key."

Case 2-4-4 Masuoka Tokyo Co., Ltd.

An SME that has made skillful use of grants to push forward introducing IT in consultation with an IT vendor and is working to improve operational efficiency

Masuoka Tokyo Co., Ltd. (employees: 19; capital: ¥20 million), located in Taito City, Tokyo, is a wholesaler that handles O-rings and other rubber products.

One of Masuoka Tokyo's strengths has been that its sales activities are based on long-term relationships with its customers. However, its sales staff had frequently gone straight to their customers' locations and returned home afterward without stopping in the office, and they would submit sales reports once a week. As a result, the company could not get an up-to-date sense of what relations with customers were like. The company realized there was an issue in that employees who were working in-house could not quickly respond to inquiries from customers since efforts had not been made to share information.


Hiromi Kumazawa, President

It was under these circumstances that Masuoka Tokyo President Hiromi Kumazawa investigated making use of an IT adoption grant. After comparing several vendors, she found a local company offering a system close to the one she had in mind for adopting. Availing herself of this opportunity, she resolved bring in a sales support system and decided to adopt a cloud-based one that is built upon the Kintone platform. (The initial costs amount to one million and several thousands of yen, of which half qualifies for being covered by the IT adoption grant. Running costs amount to several tens of thousand yen per month.)

Masuoka Tokyo had adopted a work-from-home system three years ago as a means for dealing with work force shortages. Accordingly, Kumazawa sensed that a cloud-based approach would be effective when came to the aim of connecting with those employees working at home.

The company has also taken advantage of a "monozukuri" (manufacturing craftsmanship) grant to push forward on developing a robot to handle wrapping products in its warehouse. President Kumazawa says, "SMEs that lack management resources need to make effective use of grants while carefully nurturing those that they do have internally."

Kumazawa's goal is for Masuoka Tokyo to have a framework in place for automating everything in the future from order receipts to packaging and shipping so her company can quickly respond to customer demand. "Given that we will continue to be faced with labor shortages in the future, I want to automate as many of those parts of our business that can be automated and have our employees give their undivided attention to work like dealing with customers that involves person-to-person matters," explains Kumazawa.

Case 2-4-5 Houzumi Alloy Manufacturing Co., Ltd.

A company that received suggestions regarding various measures in consultation with the chamber of commerce and industry and pushed forward with productivity improvements by making production processes visible to the eye

Houzumi Alloy Manufacturing Co., Ltd. (employees: 40; capital: ¥20 million), located in Himeji City, Hyogo Prefecture, is a manufacturer of parts for industrial machinery with a specialty in machine processing for medium-sized to large articles. One of this company's business challenges is improving productivity principally when it comes to missing delivery dates. As times have changed, customer demands are becoming increasingly diverse while the hiring situation remains unfavorable with the result that labor shortages are becoming a normal state of affairs.

Tablet computer in use at the plant with a WiFi access point in the background

Masatoshi Houzumi, President

Houzumi Alloy decided that building a production control system would be indispensable toward improving the capacity to visually monitor conditions while also shortening delivery times and improving productivity with only limited human resources. Having clearly defined the issues and those points with which they wanted help, the company consulted with the Himeji Chamber of Commerce and Industry. The Chamber suggested that for software Houzumi Alloy should consider the SME Agency's Mirasapo experts dispatch program and for hardware it should look at the Himeji City Monozukuri IT Adoption Promotion Project (Grant Program) (hereafter, Himeji IT Project). With the Chamber of Commerce's support the company filled out the relevant applications. The result was the company received guidance on how to set up a production control system through the Mirasapo program, and thanks to the Himeji IT Project was able to install WiFi in its plant that linked it to the production control system.

Specifically, with guidance from experts under the dispatch program Houzumi Alloy was able to develop software at its own expense that would provide support with tasks close at hand, and built the momentum toward developing production control software for future in-house use. Adding WiFi to the plant made it easier to use Windows tablet computers through the wireless LAN even with the current production control system. Unlike with the terminals that previously had been in use workers can now check a variety information at their fingertips. This reduced the time wasted from moving spot to spot. The resulting savings added up to 15 minutes per person per day, or about nine hours per day for the plant as a whole. Furthermore, the breakdown rate associated with using a tablet on site is considerably lower compared to the laptops that had been used before.

The total amount of the honorarium due the Mirasapo expert was ¥40,000. There was no expense to Houzumi Alloy as they had gone through the dispatch program, though they later paid ¥100,000 to cover a consultant contract they signed subsequently. The total cost for installing a WiFi network at the plant under the Himeji IT Project came to ¥2.17 million, including construction costs and setup fees. The maximum amount of subsidies available for this was ¥1 million, so the company had to cover the remaining ¥1.17 million.

When it came to what the key issue was in consulting with the Chamber of Commerce, Houzumi Alloy President Masatoshi Houzumi says, "I set my sights on clearly defining the issues facing our enterprise and our support needs so when we went to talk about our problems with the Chamber it would be easier for them to determine what kind of support agencies and what sorts of support programs would be the best for them to tell us about." Himeji Chamber of Commerce and Industry officials Susumu Senda and Masatsugu Tajiri who were involved in the consultations add, "For SMEs that don't really know what the best thing would be to discuss, we take the approach of wanting to find what it is that they should be prioritizing. In President Houzumi's case, the topics for discussion were clear and it was easy to provide him with suitable support proposals."

Section 2 Increasing the benefits of IT usage and establishing functional linkage between different areas of business procedure

In Section 2, we focus on functional linkage between different areas of business procedure, which boosts the effect of IT usage, and show how functional linkage increases labor productivity. We additionally show how the reform of operational procedures also contributes to the realization of increased labor productivity. In addition, we look at different types of IT tool, and show that the use of cloud services promotes functional linkage between different areas of business procedure more readily than packaged software for installation in computers.

1. Realization of functional linkage between areas of business procedure with IT

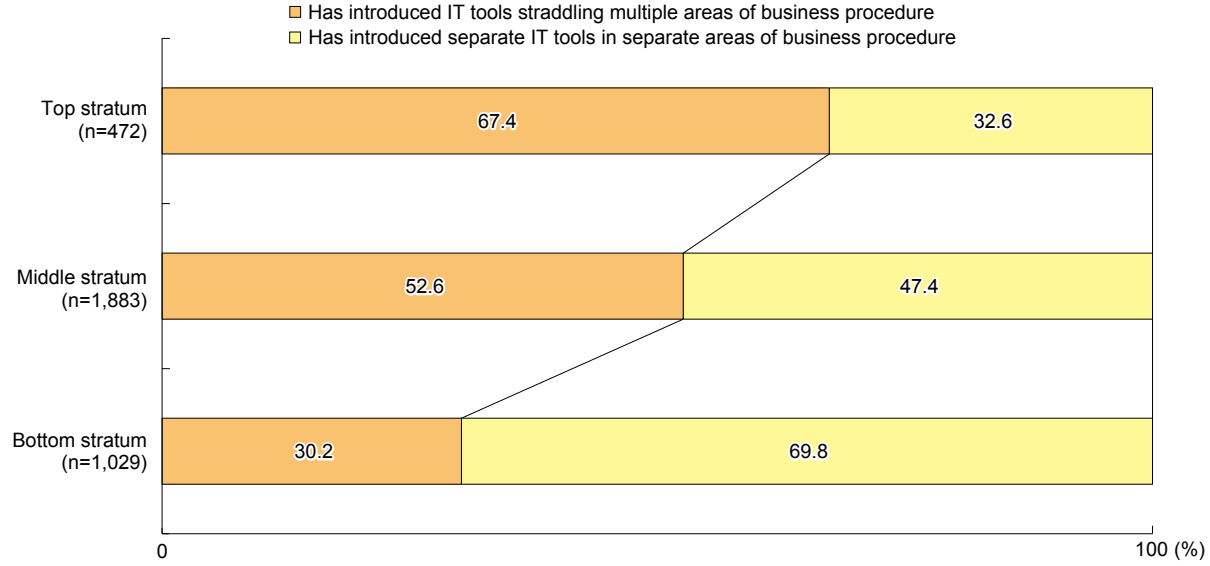
(1) Level of IT introduction and functional linkage between areas of business procedure

Inputting the data input to one business process to a separate business process will not increase operational efficiency. However, the concept that it can be possible to automatically input the data input to one business process to another business process is the foundation of functional linkage between different areas of business procedure. Below, we provide examples of functional linkage between areas of business procedure.

- Automatic reflection of payroll calculations in accounting procedures (linkage between personnel/labor and financial matters/accounting)
- Linkage of processing of receipt/issuing of orders with fluctuations in inventory (linkage between receipt/issuing of orders and inventory management)
- Ability to make use of new customer data from the system for receipt/issuing of orders when it is recorded in the customer database (linkage between customer management and receipt/issuing of orders).

Looking at the status of linking of functions between different areas of business procedure for each of the levels of IT introduction that we saw in the previous section, we find that the ratio of companies that have realized functional linkage increases as we move upwards from the bottom to the top stratum (Fig. 2-4-17).

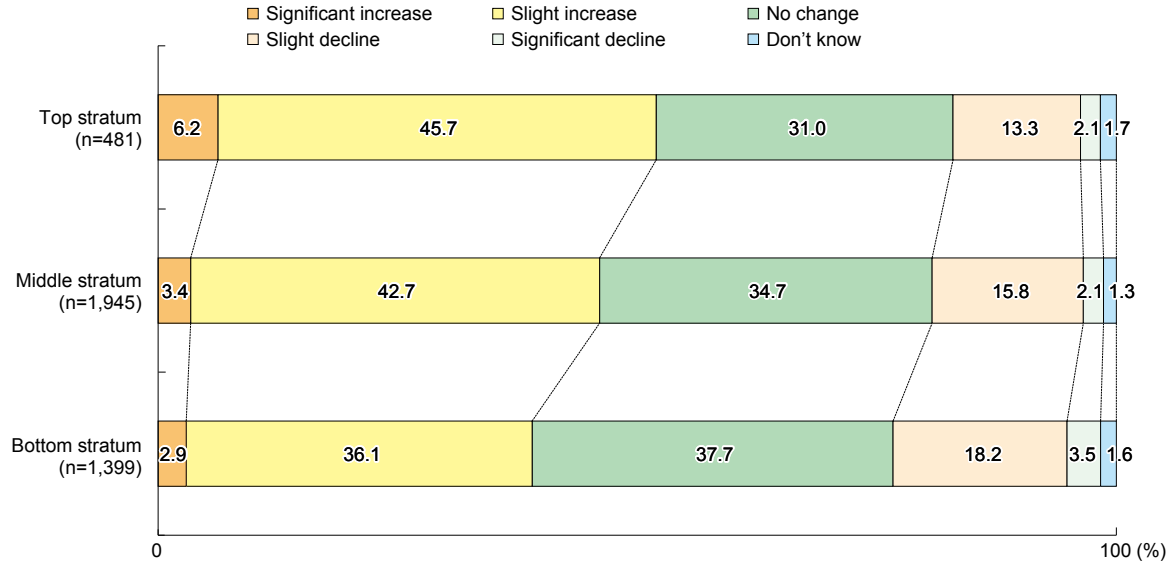
Fig. 2-4-17 Level of IT introduction and functional linkage between areas of business procedure



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: For our comprehensive evaluation of SMEs as a whole, we classified companies responding "We have introduced IT, and we have obtained the expected benefit" as the top stratum, companies responding "We have introduced IT, and we have obtained a certain degree of benefit" as the middle stratum, and companies offering any other response as the bottom stratum.

In addition, when we compare labor productivity with the situation three years before for each of the levels of IT introduction, we see that the ratio of companies for which labor productivity has increased against three years previously increases as we move upwards from the bottom to the top stratum (Fig. 2-4-18).

Fig. 2-4-18 Three levels of IT introduction and labor productivity in comparison to three years previously



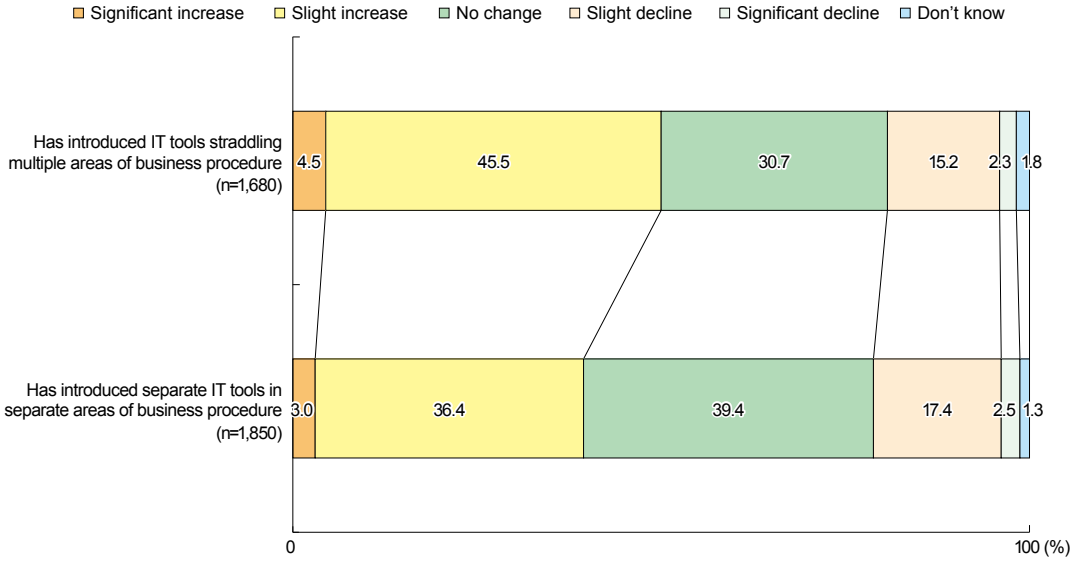
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Note: For our comprehensive evaluation of SMEs as a whole, we classified companies responding "We have introduced IT, and we have obtained the expected benefit" as the top stratum, companies responding "We have introduced IT, and we have obtained a certain degree of benefit" as the middle stratum, and companies offering any other response as the bottom stratum.

(2) Linkage of functions between different areas of business procedure and labor productivity

When we consider linkage of functions between different areas of business procedure and labor productivity compared with the situation three years before, we see that the ratio of companies that have increased their labor productivity against three years previously is higher among companies that have realized linking of functions between different areas of business procedure (Fig. 2-4-19). Therefore, we can consider linking of functions between different areas of business procedure to be a factor in the realization of increased productivity.

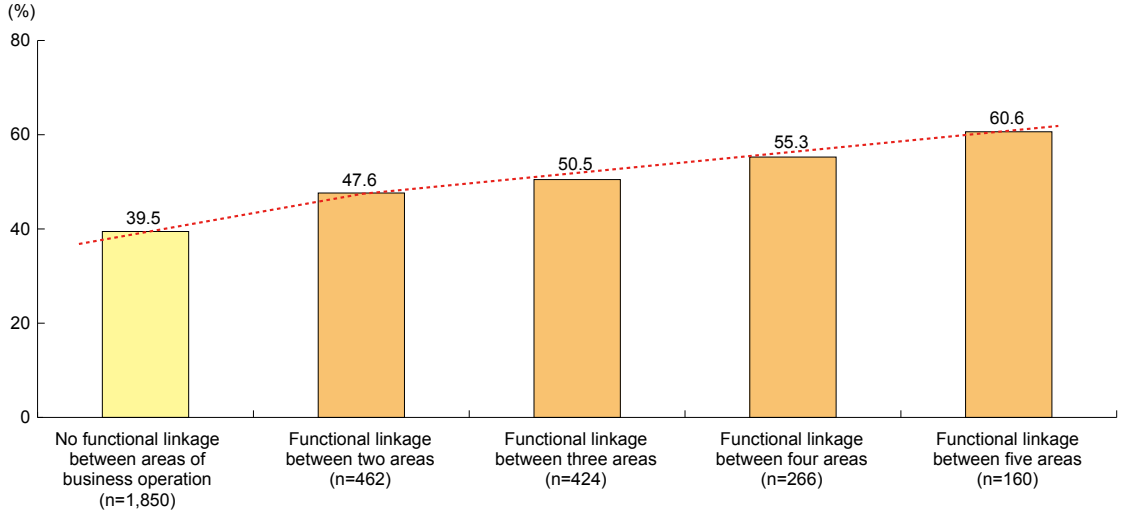
Fig. 2-4-19 Linkage of functions between different areas of business procedure and labor productivity compared to three years previously



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

In addition, when we look at the ratio of companies for which labor productivity has increased by the number of areas of business procedure[7] that they have established functional linkage between, we find that the ratio increases as the number of areas of functional linkage increases (Fig. 2-4-20). Therefore, we can consider linking of functions between different areas of business procedure to be a factor in increased productivity.

Fig. 2-4-20 Number of areas between which functional linkage has been established and labor productivity



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes:
1. Shows ratio of companies responding "significant increase" and "slight increase" in labor productivity compared to three years before.
2. Here, business procedures are classified into five areas: "Finance and accounting," "Personnel/labor," "Customer relations," "Inventory control," and "Receipt/issuing of orders."
3. Responses regarding "Other" areas of business procedure were not aggregated.

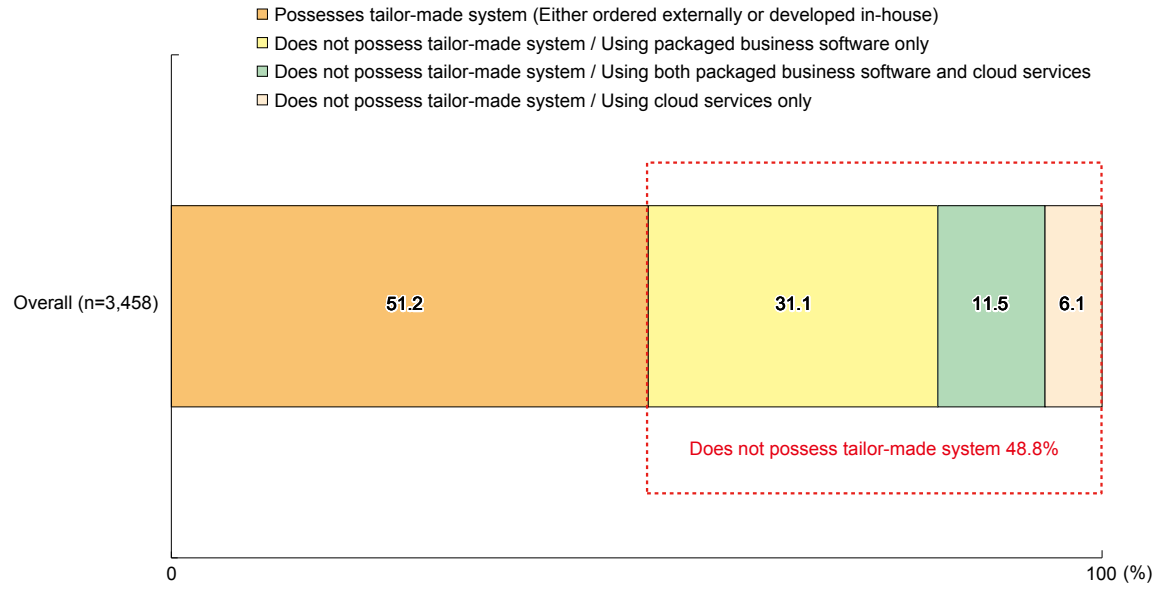
7) Here, business operations are classified into five areas: "Finance and accounting," "Personnel/labor," "Customer relations," "Inventory control," and "Receipt/issuing of orders." Refer appended note 2-4-1 for status of coordination between areas of business procedures.

2. Types of IT tools introduced and functional linkage

(1) Types of IT tools introduced

Fig. 2-4-21 shows the types of IT tools introduced. Approximately 51% of companies possess a tailor-made system (whether developed in-house or ordered externally), while approximately 49% of companies do not. Looking at a breakdown of companies that do not possess tailor-made systems, we find that approximately 30% use packaged business software (for computer installation) only, approximately 12% of companies use both packaged business software (for computer installation) and cloud services, and approximately 6% of companies use cloud services only. Among companies that do not possess tailor-made systems, the use of packaged business software (for computer installation) is currently the standard approach, but there are also indications that the introduction of cloud services is proceeding steadily.

Fig. 2-4-21 Types of IT tools introduced

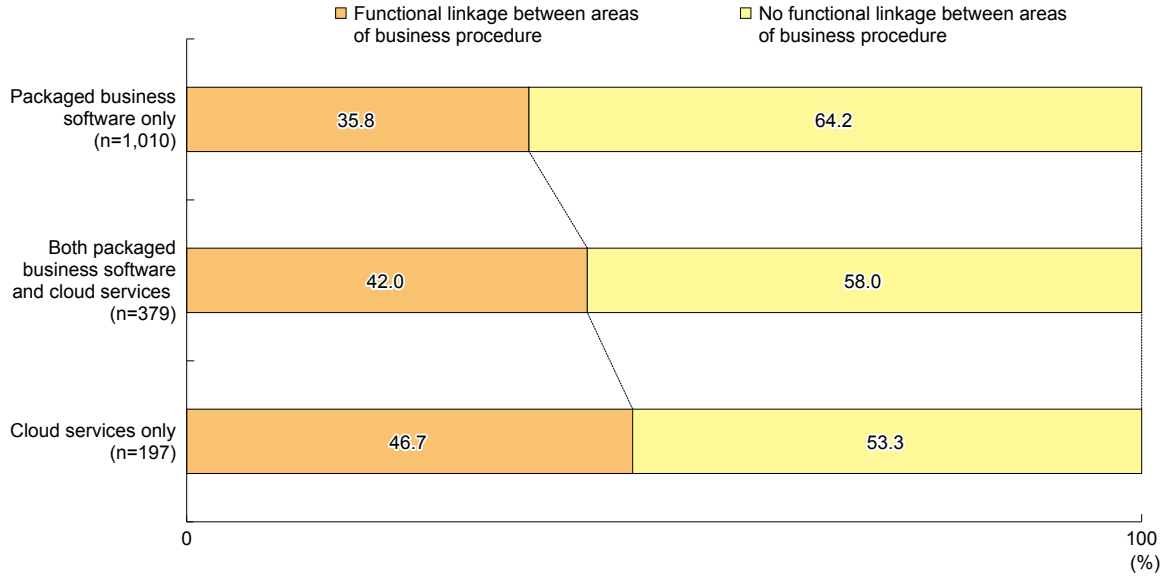


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Omits companies responding that they had introduced IT tools other than those described above.

(2) Linkage of functions between different areas of business procedure and types of IT tools introduced

When we compare the realization or non-realization of linkage of functions between different areas of business procedure for packaged business software (for computer installation) and cloud services, we find that companies that have introduced cloud services only have realized the highest rate of functional linkage, and companies that have introduced packaged business software only have the lowest rate of functional linkage (Fig. 2-4-22).

Fig. 2-4-22 Linkage of functions between different areas of business procedure and type of IT introduced



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Omits companies responding that they possessed a tailor-made IT system (either developed in-house or ordered externally) or that they used IT tools other than those described above.

One reason that the introduction of cloud services promotes the realization of linkage of functions between different areas of business procedure is the fact that cloud services offer greater extensibility than packaged business software. The majority of systems offered by cloud services employ API[8]. By means of linking via the API, it is possible to utilize the functions of other cloud services, making it a simple matter to expand functions.

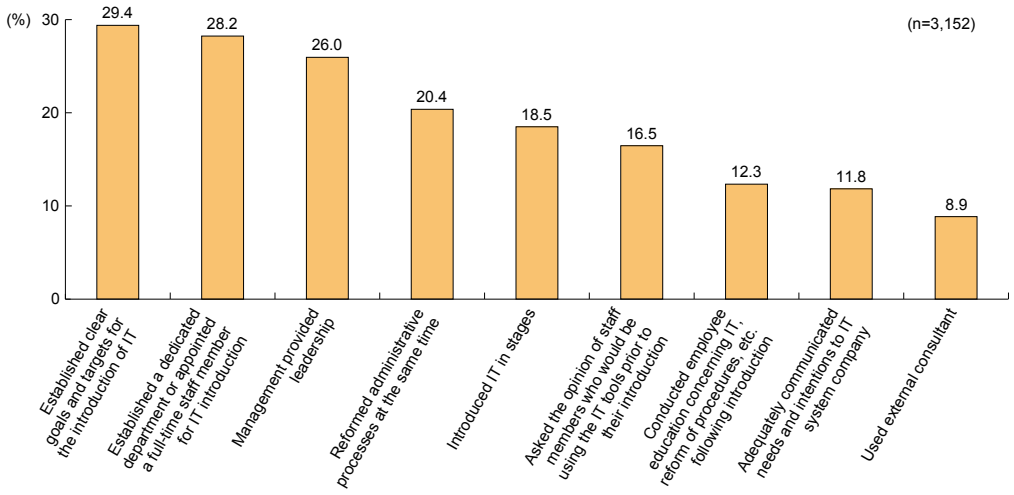
3. Initiatives that boost the effect of IT introduction

(1) Reasons companies are able to obtain the benefits of IT introduction

Fig. 2-4-23 shows result obtained when companies that had obtained benefits from the introduction of IT were asked the reason that they had been able to do so. "We established clear goals and targets for the introduction of IT," "We established a dedicated department or appointed a full-time staff member for IT introduction," and "Management provided leadership" were the most frequent responses, with almost 30% each, followed by "We reformed our administrative processes at the same time," "We introduced IT in stages," and "We asked the opinion of staff members who would be using the IT tools prior to their introduction," at around 20% each.

8) An acronym for application programming interface. Refers to functions, commands, etc. prepared to facilitate the development of application programs.

Fig. 2-4-23 Reasons that companies were able to realize the benefits of introduction of IT

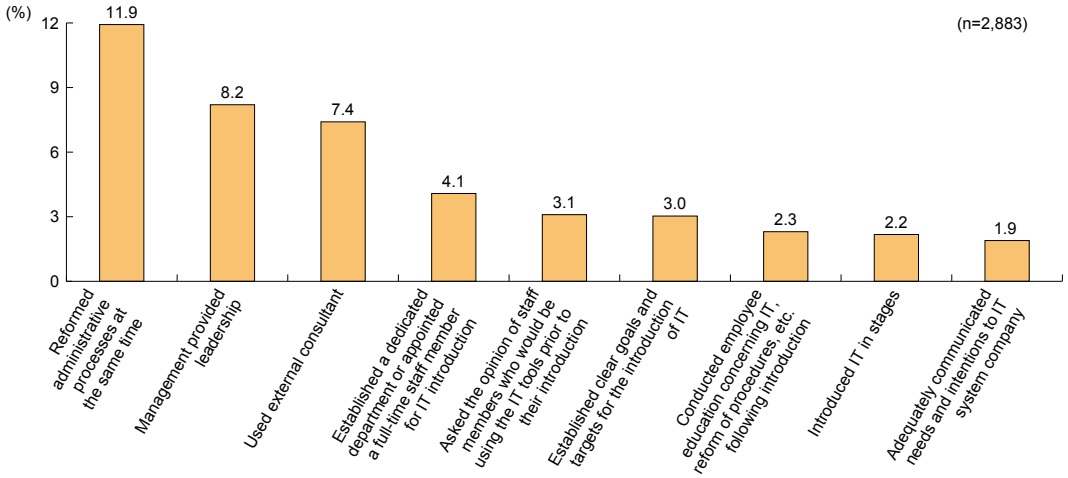


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes:
1. Total does not always equal 100% as multiple responses were possible.
2. Does not show companies responding "Other."
3. Aggregates companies responding "We have introduced IT, and we have obtained the expected benefit" and companies responding "We have introduced IT, and we have obtained a certain degree of benefit" for at least one of the categories "Finance and accounting," "Personnel/labor," "Customer relations," "Inventory control," "Receipt/issuing of orders" and "Comprehensive assessment for entire company."

Fig. 2-4-24 shows the degree to which companies reporting increased labor productivity against three years previously differed depending on whether or not they had implemented each of the initiatives described in Fig. 2-4-23. Focusing on the magnitude of their effect on labor productivity, reform of administrative processes has the greatest effect, followed by leadership from management and the utilization of external consultants. We can conclude that the reform of administrative processes has a greater effect in boosting the benefits of IT introduction than the other initiatives.

Fig. 2-4-24 Reasons that companies realized benefits of IT introduction and labor productivity



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes:
1. Shows ratio of companies responding "significant increase" and "slight increase" in labor productivity compared to three years before.
2. Shows the difference in the ratio of companies reporting an increase in labor productivity when the initiative is implemented and when the initiative is not implemented.
3. Does not show companies responding "Other."
4. Aggregates companies responding "We have introduced IT, and we have obtained the expected benefit" and companies responding "We have introduced IT, and we have obtained a certain degree of benefit" for at least one of the categories "Finance and accounting," "Personnel/labor," "Customer relations," "Inventory control," "Receipt/issuing of orders" and "Comprehensive assessment for entire company."

Case 2-4-6 Nitto Electric Manufacture Co., Ltd.

A company working to update its in-house system tailored to a reconsideration of its work processes

Nitto Electric Manufacture Co., Ltd. (employees: 152; capital: ¥80 million), located in Ota City, Gunma Prefecture, is an electrical machinery manufacturer focusing on power control devices (distribution boards, control panels) aimed at electric power and railroad companies. Job shop-type production is its primary approach since the specifications the companies to which it delivers its products differ. Nitto Electric's ability to deal with every aspect of the production process in-house—ranging from the planning and proposal stage to designing electric circuits, structural design, sheet metal processing, painting and coating, assembly and circuiting, and testing—in an integrated fashion sets it apart from competitors. This gives it a superiority in terms of costs and being able to handle short delivery schedules.

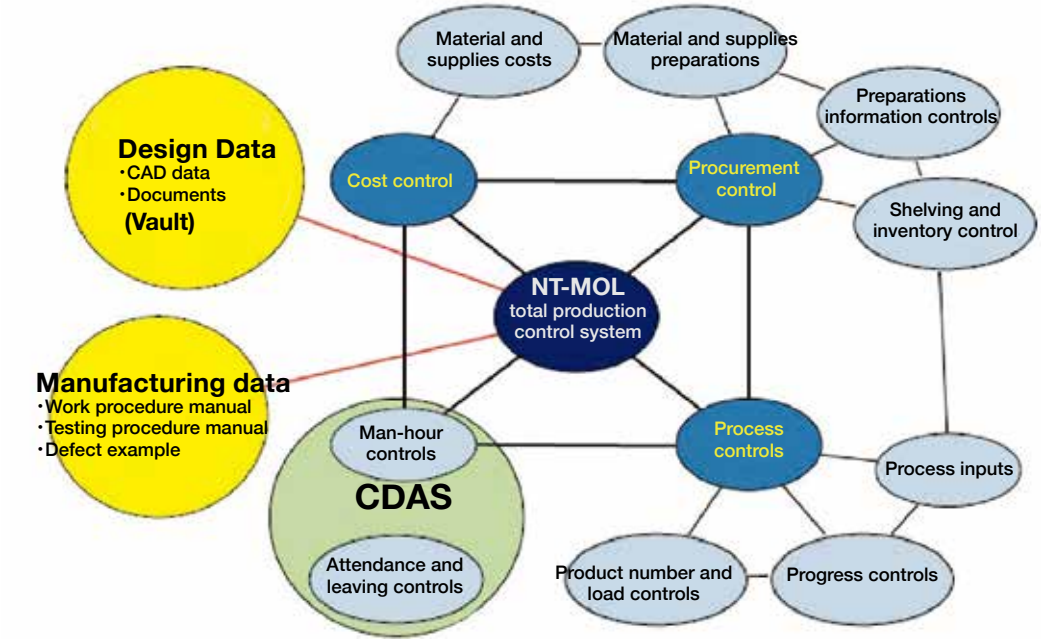
Nitto Electric's fortes are helped by the NT-MOL total production control system developed by the company itself. The design section has been accumulating data since the 1980s and working to put it to use on the production line.

Inputting the processes expected to be used and closing times into the system makes it possible to manage all processes including the progress of the work. Next, by inputting the materials and supplies that will be needed, the various preparations needed can be linked to procurement control. Furthermore, the precision of costs for the matters (products) ordered based on this information will increase and be reflected in cost controls. Inputting the details of an employee's work for the day when they go home broken down by customer and business handled into the man-hour control system makes it possible to track performance on the basis of costs including not only those for materials and supplies but also for labor.

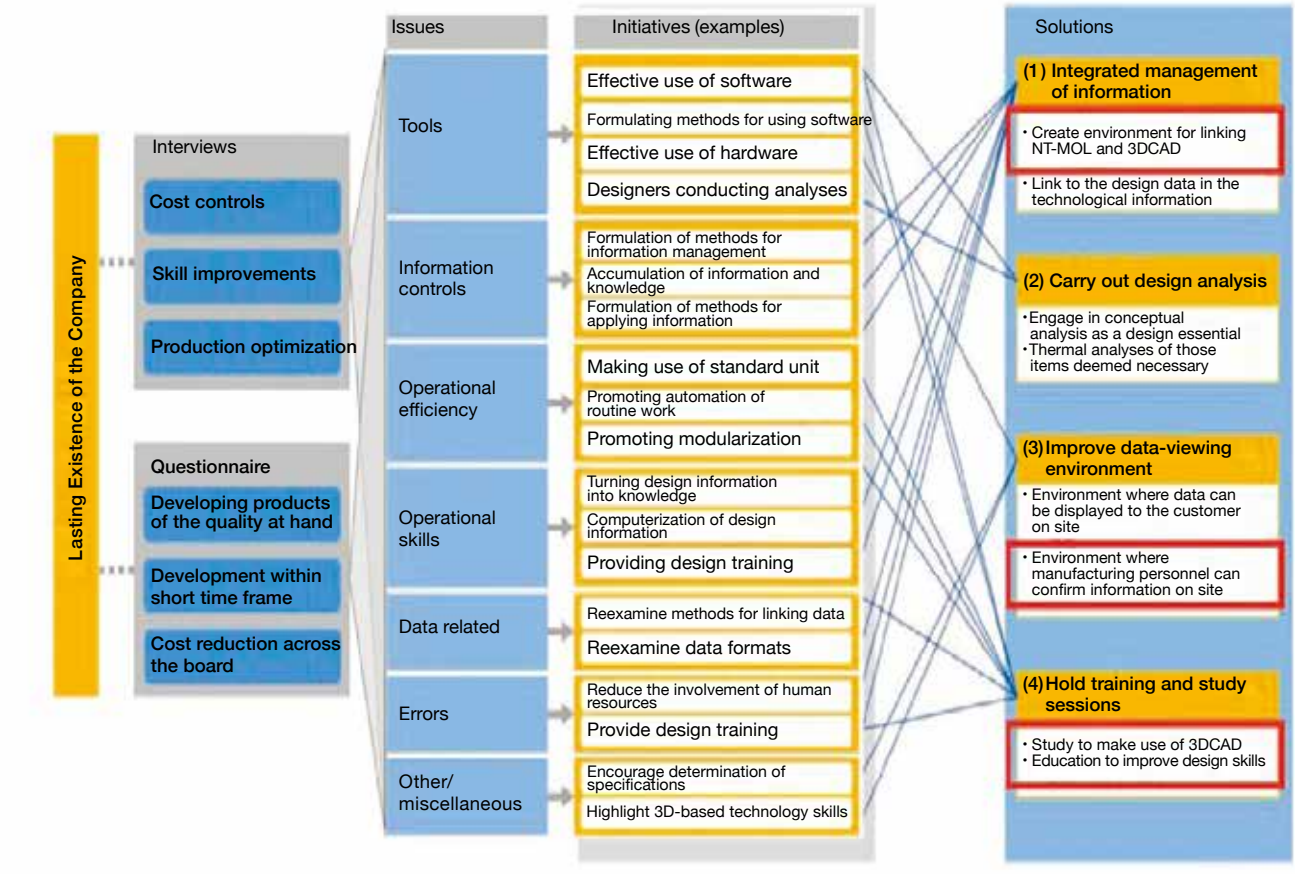
The system is not limited to handling production control. It is also linked to handling such back-office matters as managing attendance and payroll. Work data from the man-hour control system is connected to the system for handling when workers punch in and punch out, as well as for calculating payroll. It helps to reduce overhead since it lowers the load imposed on administrative staff.

Nitto Electric had been expanding the NT-MOL system step-by-step. However, defects became apparent that created unnecessary work such as when it handled multiple tasks at once. While the computer-aided design (CAD) software and IT infrastructure both continued to be updated, the production control aspects to the system were losing their uniqueness and superiority compared to those at other companies. Nitto Electric became aware of the need to renovate the entire setup.

Accordingly, Nitto Electric used the Business Process Assessment method offered by Autodesk to sort out the issues with its present system, including a reexamination of its production control process itself. As a result of this assessment, the company decided to focus its improvement efforts on four areas: (1) integrate management of information, (2) analyze designs, (3) improve the data viewing environment, and (4) hold education and training sessions. This would allow it to engage in improving every aspect of its production control processes and production control systems. The company is also planning to step beyond upgrading its NT-MOL system to put in place an internet-of-things system for its production process. It is also reviewing the use of tablet computers in the production workplace by moving its systems to the internet as well as linking the robots that handle production control to the NT-MOL system.



Nitto Electric's recent steps taken regarding its NT-MOL total production control system (sections marked in yellow)



Summary based on BPA results

Case 2-4-7 Taiyo Syoko Co., Ltd.

A company that moved forward with sharing data among divisions and improved productivity

Taiyo Syoko Co., Ltd. (employees: 57; capital: ¥90 million), located in Saitama City, Saitama Prefecture, is involved primarily in construction and water supply and drainage work, building 1,300 structures annually and handling follow-up maintenance on 2,000. Doing business since its founding under a philosophy of "shared progress, shared riches," the company has sought to make its social contribution by delivering work of ever-higher quality and enriching everyone who works for it.

Ever since the days of its previous president, Taiyo Syoko has put information technology to use at its work sites thanks to such measures as developing its Taisyo Net to manage attendance and processes at its construction sites. However, the use of IT in its offices has lagged. The divisions within the company were not set up to share information by computer. For example, whenever the general affairs section placed an order for materials, it would have to check each time on its progress with the construction section. It took time to get questions answered among sections and the arrangement was inefficient. Furthermore, employees working at construction sites had to take care of reports after coming back to the company's offices. Consequently, they had to spend time changing locations and also faced the issue of increasing overtime.

In light of these issues, Taiyo Syoko decided to install an IT system for sharing information in-house. Now, the company has an in-house LAN and work-related information is shared among divisions. For example, employees will scan blueprints or documents such as requests being filed with government offices. The digitized information is saved and can now be searched and put to use. Accordingly, whenever an inquiry comes in, an employee regardless of division can quickly refer to blueprints or construction records and deal with it. Also, now that the general affairs section can see what the progress the construction section is making, it can more efficiently handle cash management and orders for materials to match how far along construction is.

Furthermore, Taiyo Syoko also adopted a remote work plan using mini-PCs and tablet computers that allows employees at a construction site to use the in-house system from the field. By connecting remotely to their own computer back in the office, employees can check blueprints from the construction site, review communications from customers, draft reports from the field, and so forth. The tablets are used for making process and progress reports to be sent to home builder companies.

Yukiko Ikeda, President

By setting up an IT system in-house, the company succeeded in shaving off three hours of work per day per person. They also achieved results in terms of changing attitudes and raising consciousness about the work employees do. Adopting the remote work system had the effect of saving the two hours on average that had been required for traveling back and forth between the office and the job site. The reduction in the amount of overtime required also helped the company with retaining younger workers. The costs of setting up the in-house IT system came to several millions of yen to cover system development expenses and the price of creating an in-house LAN. As for the remote work system, set-up likewise ran several millions of yen to cover the purchases of mini-PCs and tablet computers for remote use.

"We were intent on improving the efficiency of work so we could send our employees home earlier," explains President Yukiko Ikeda. "We cannot bring ourselves to allow parents from being able to see the faces of their children. This idea has gone unchanged ever since the days of our predecessor."

Case 2-4-8 Echo Electronics Industry Co., Ltd.

A company whose executives as a whole took the initiative to get everyone to use information systems, making operations visually trackable and improving performance

Echo Electronics Industry Co., Ltd. (employees: 180; capital: ¥100 million), located in Fukuoka City, Fukuoka Prefecture, has approximately 2,500 client companies mainly around Kyushu for its business of proposing and developing business systems, building IT infrastructure, and developing smartphone software.

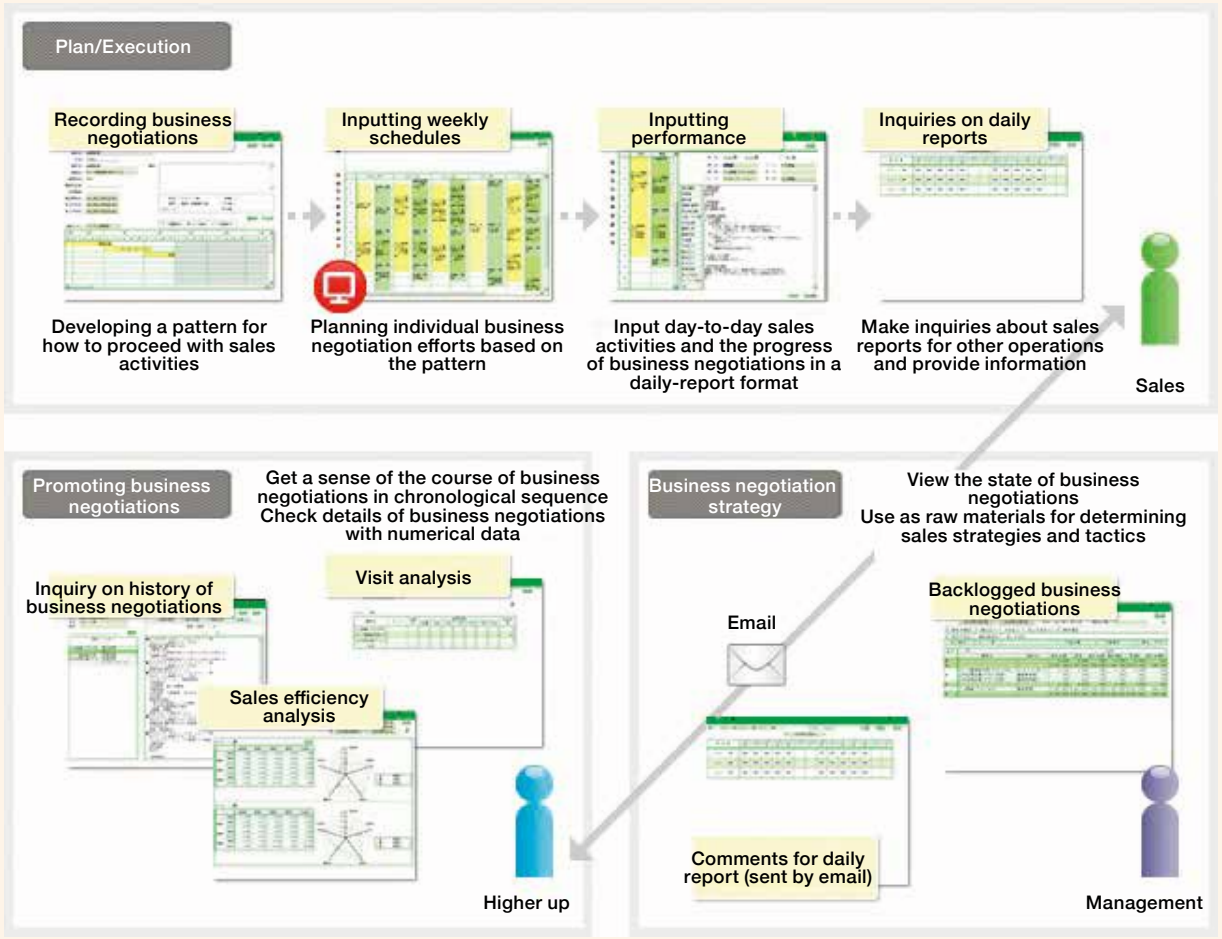
Echo Electronics decided it needed to foment a free and open-minded corporate culture to fulfill its goal of transitioning from a top-down, president-led approach to management to one that would be bottom-up. It determined it would have to get away from work tending to be associated with specific individuals and find ways to make various sorts of information more easily tracked by eye. Accordingly, it brought into play the Sales Force Automation (SFA) system that it had developed around two decades earlier. This cloud-based system is equipped with APIs that make it easy to extend functionality and link it to other systems. The decision to develop SFA in-house was made with an eye to system changes in response to changes in the management environment.

The SFA system made it possible for non-executive staff to input and view information about their jobs. Submitting daily reports about work made it possible to visually track day to day activities and helped to get away from only specific individuals being familiar with the work they were doing. It also made it possible for all employees to work together to speedily resolve any customer issues and improved customers' trust in Echo Electronics. It further made it easily to guarantee one worker could cover for another in their duties, and helped, too, when it came to improving the rates at which workers took childcare leave and so forth.

Echo Electronics has also been using the SFA system for operational analysis. Each individual job is assigned a code. Once those job codes and time required for the job were input into the system, the company could get a grasp on the cost for each project and get an accurate picture of its earnings situation. Use of the system improved employees' cost consciousness, contributed to improvements to the company's profitability ratio, and also had an impact on employee performance evaluations.

It made it possible to draw on the daily reports input in the system and analyze the actions taken in terms of sales, system development, and construction projects and then compare them with standardized patterns of action. Sales staff who were short on experience could compare their own actions with the work patterns of those salespersons who had posted good performance and, for example, check to see whether they were missing something in their own work. The system made know-how that tends to be specific to individuals and turned it into something anyone could access visually. New hires, too, can learn through the SFA system, making it easier for them to develop. Students have also viewed this feature favorably, and it has even been useful for recruiting new employees. In the future, Echo Electronics is planning to make use of the data accumulated in the SFA system to create a mechanism for recommending highly productive ways of working that will improve results without generating overtime.

To achieve results from the adoption of the SFA system, all employees needed to have a good command of the system and post information to it. The executives at Echo Electronics took the lead when it came to inputting information, and gave employees advice and other comments about the information they were putting in. SFA has a feature that allows a person to see who has viewed the information they have posted. Thus, an employee inputs information on the premise that it can be used by their boss, their peers, and their juniors. Said previous president Keiichi Kobayashi, "Management en masse had to take the lead in using the system or it wouldn't happen. We checked what the status of each employee was and gave them useful feedback. The system wouldn't be put to effective use if it were simply introduced as a top-down directive."



SFA system outline (from Echo Electronics Industry website)

Case 2-4-9 Uema Food & Life Co., Ltd.

A company that improved profitability by developing a system that can manage profit calculations for one item at a time

Uema Food & Life Co., Ltd. (regular employees: 23, part-time and side-job workers: 57, capital: ¥9.9 million), located in Okinawa City, Okinawa Prefecture, is involved shop sales and deliveries of box lunches, ready-prepared foods, and hors d'oeuvres with a focus on Okinawa-style tempura. The roots of the company go back to a tempura shop that the parents of President Yoshikazu Uema had started under the same name that Uema's grandparents had used. In Okinawa, it is common for relatives to gather together. In light of how much effort is required to prepare food to entertain for these gatherings, using shops that specialize in tempura or ready-prepared foods is a distinctive local characteristic.

System block diagram

Depiction of the system in actual shop use

Uema Food & Life incorporated when Uema became president. The company gradually expanded the number of shops it operated and sales increased. However, there was always an awareness of how thin profit margins are in the catering trade. President Uema realized that one reason why wages tend to stay low in this business is because companies are unable to set appropriate prices. He became convinced that it would be necessary to manage the profitability of every single item in order to guarantee an appropriate profit margin. Also, from that perspective there was an urgent need to improve the earnings structure in view of the forecast for a growing labor shortage and worries over rising wages. To solve these issues, Uema Food & Life set to work on developing an in-house system that could efficiently manage the profitability for each item it handles.

To build the ideal system, President Uema set about defining what would be required of it and asked an IT company in Naha City to handle development. The system had six features: (1) point-of-sale registers, (2) a dashboard, (3) order receipt management, (4) product management, (5) cost control, and (6) cloud-based accounting connections (refer to the system block diagram). When someone uses the system, they can numerically control conditions on a per-item basis, such as how much it might cost for the batter used on piece of shrimp tempura. It can also be linked to a cloud-based accounting system, and it also helps to make back-office work more efficient.

Uema Food & Life brought the system that was developed on line and through actual use came up with improvements. As a result, the company's cost percentage came down by about 5 percent point and its profits improved tremendously. In terms of costs, prior to adopting the system the company had been using POS registers that cost about ¥1 million each. These were replaced by tablet computers that cost ¥100,000 each. As a result, the company cut costs by approximately ¥900,000 for each machine replaced. Development costs stood at several millions of yen, while running costs amounted to several tens of thousands of yen per month. However, the effects that were achieved far exceeded the costs.

Having seen the impact that using this system had on his company's shops, in 2017 President Uema founded U & I Co., Ltd., to begin the effort to sell the system to outside parties. "At present, Okinawa may not be faced with a trend toward labor shortages at the same level as the national average, but I believe it is going to become a big issue down the road," says Uema. "Even labor intensive industries will need to improve labor productivity on the premise that they cannot increase the number of workers they have. We're also looking into adding features that take advantage of AI sometime down the road."

Section 3 Utilization of IT in back office functions (financial affairs/ accounting and attendance management)

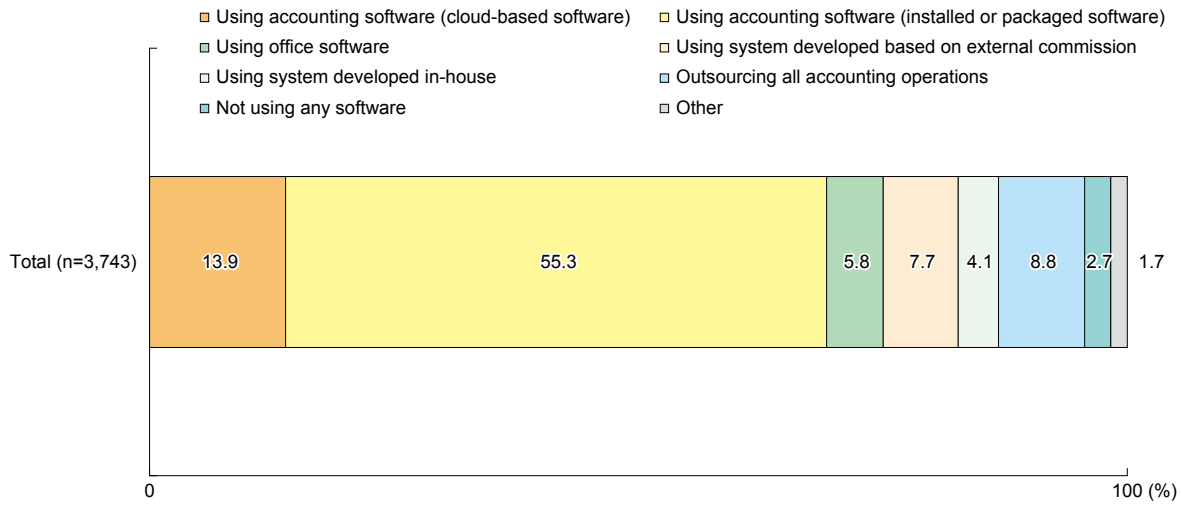
In Section 3, we focus on the utilization of IT in the back office domains of financial affairs/accounting and attendance management, and verify the effectiveness of the use of cloud services in saving labor. Following this, we focus on linking with Internet banking and the introduction of management accounting initiatives as a secondary effect of the introduction of cloud accounting.

1. The use of IT in accounting and attendance management

(1) Status of introduction of IT in accounting procedures and attendance management procedures

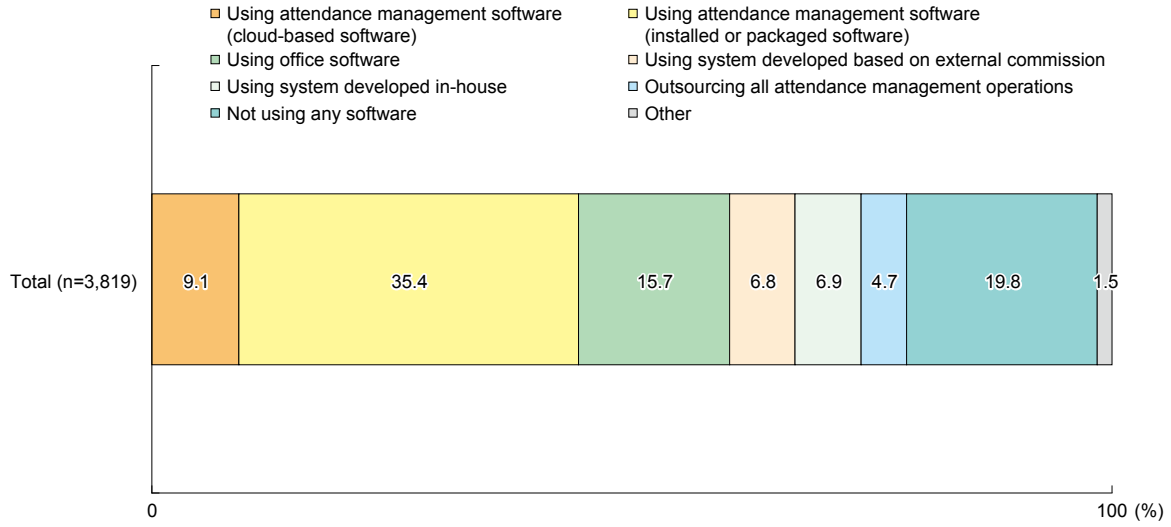
The IT tool most used in both accounting and attendance management is software (packaged, for computer installation) (Figs. 2-4-25 and 2-4-26). Cloud software is used in accounting by approximately 14% of companies and in attendance management by approximately 10%. More companies outsource accounting duties than attendance management.

Fig. 2-4-25 Status of introduction of IT in accounting procedures



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Fig. 2-4-26 Status of introduction of IT in attendance management procedures

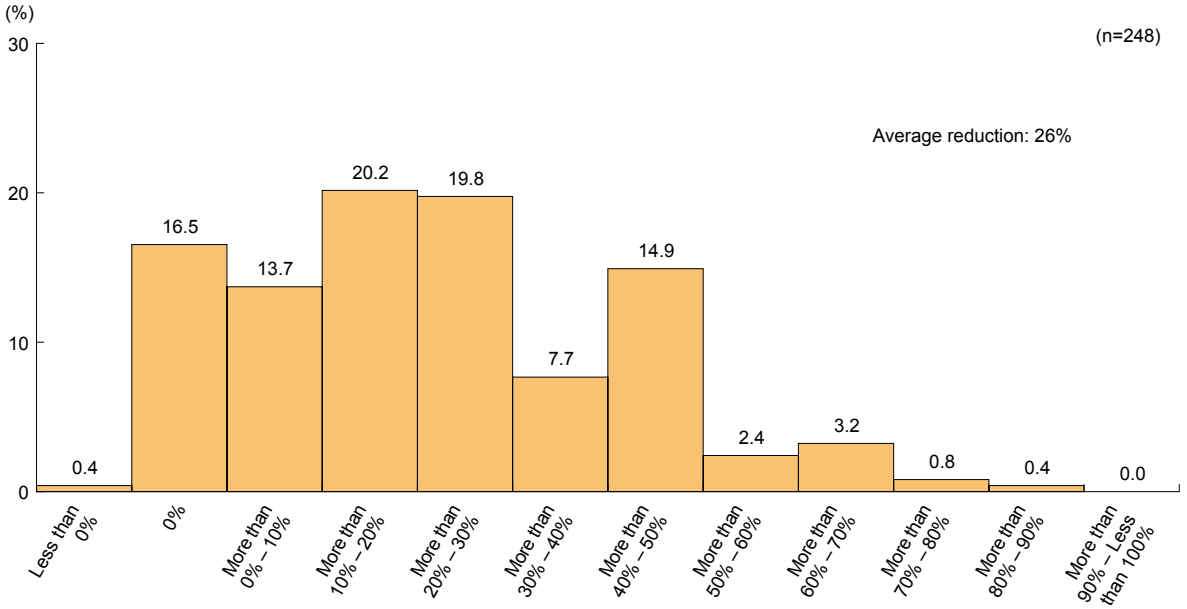


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

(2) Utilization of cloud services in accounting procedures and attendance management procedures

Figs. 2-4-27 and 2-4-28 show the change in the number of person days required for the monthly closing of the books following the introduction of IT, for those companies responding that they had introduced cloud services. Companies reporting no change with the introduction of cloud accounting (a reduction of 0% in person days) or rather an increase in person days (a reduction of less than 0%) made up around 17% of the total, but taking into consideration all companies that provided valid responses, including these, the average reduction in person days required for the monthly closing of accounts with the introduction of cloud accounting was 26%.

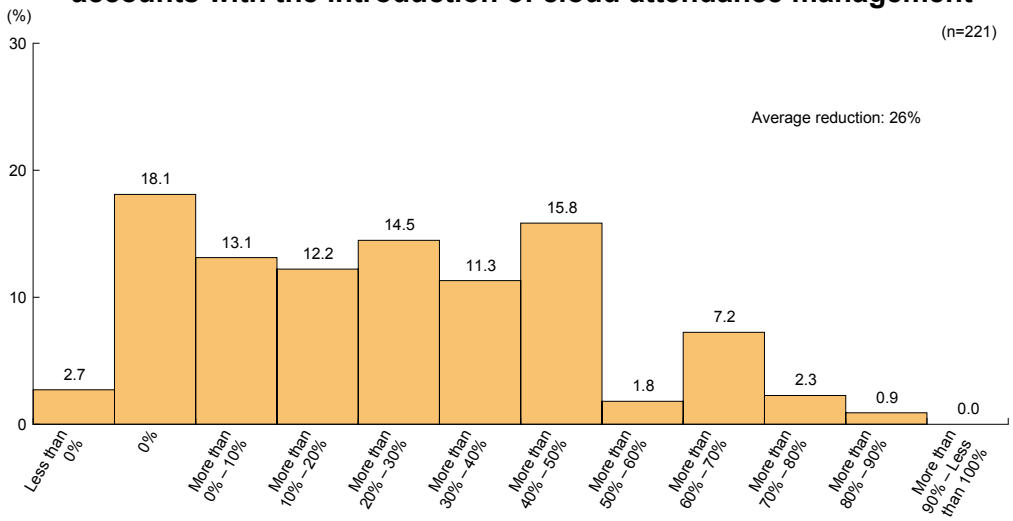
Fig. 2-4-27 Percentage reduction in person days required for the monthly closing of accounts with the introduction of cloud accounting



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Aggregates companies responding that they used cloud accounting software in their accounting procedures.

In the area of attendance management, companies reporting no change with the introduction of cloud accounting (a reduction of 0% in person days) or rather an increase in person days (a reduction of less than 0%) made up around 21% of the total, but taking into consideration all companies that provided valid responses, including these, the average reduction in person days required for the monthly closing of accounts with the introduction of cloud attendance management was 26%.

Fig. 2-4-28 Percentage reduction in person days required for the monthly closing of accounts with the introduction of cloud attendance management



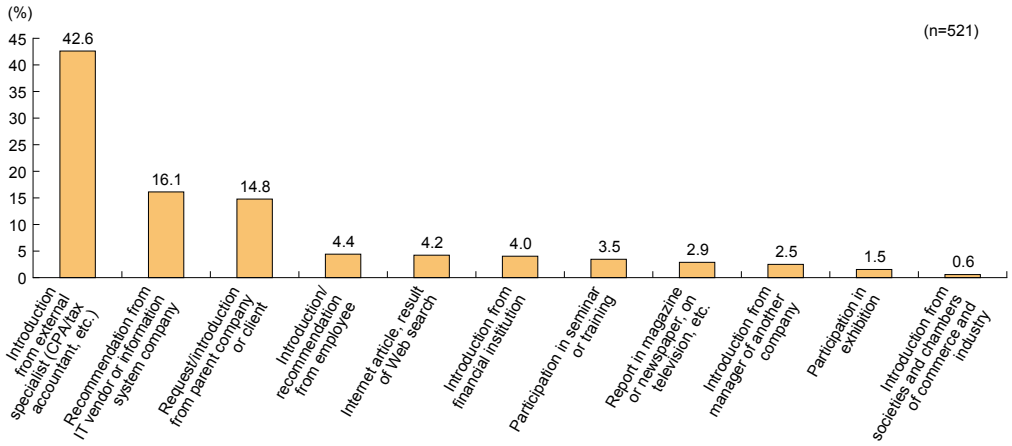
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Aggregates companies responding that they used cloud attendance management software in their attendance management procedures.

(3) Impetus for introduction of cloud accounting

Companies were also queried regarding what provided the impetus for their introduction of cloud accounting and the benefits that they had obtained from its introduction.

With regard to the impetus for introduction of cloud accounting, "Introduction from external specialist (CPA/tax accountant, etc.)" was overwhelmingly the highest response at approximately 40%. This was followed by "Recommendation from IT vendor or information system company" and "Request/introduction from parent company or client" at around 15% each, with all other responses under 5%.

Fig. 2-4-29 Impetus for first considering introduction of cloud accounting

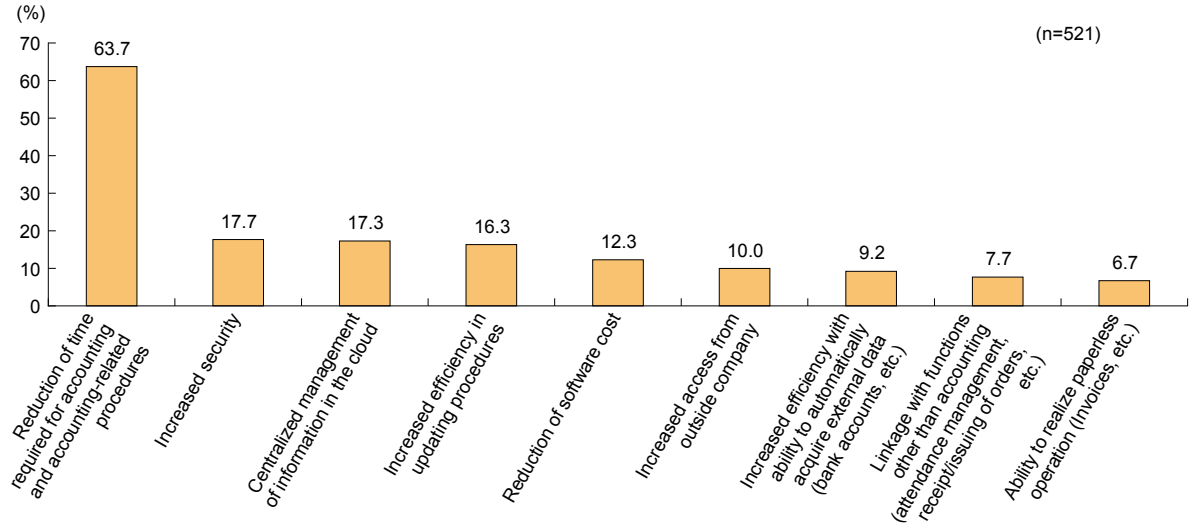


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. Does not show the responses "Other" and "Don't know."
3. Aggregates companies responding that they used cloud accounting software in their accounting procedures.

(4) Benefits obtained from introduction of cloud accounting

With regard to the benefits obtained from the introduction of cloud accounting (Fig. 2-4-30), "Reduction of time required for accounting and accounting-related procedures" was overwhelmingly the highest response at more than 50%. This was followed by "Increased security," "Centralized management of information in the cloud" and "Increased efficiency in updating procedures," at more than 15% each.

Fig. 2-4-30 Benefits obtained from introduction of cloud accounting



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. Does not show the responses "Other" and "Don't know."
3. Aggregates companies responding that they used cloud accounting software in their accounting procedures.

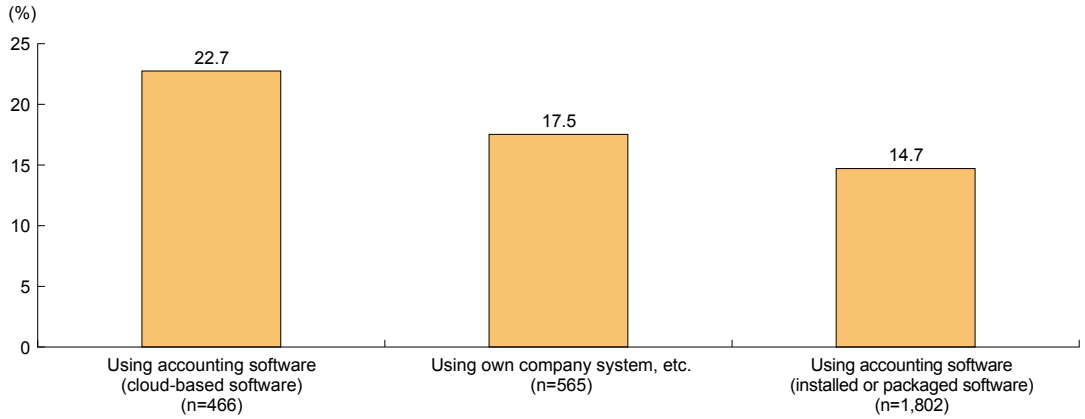
2. Secondary benefits of cloud accounting

We will look at the rate of linkage between in-house systems and Internet banking and the rate of introduction of management accounting initiatives as secondary benefits of the introduction of cloud accounting.

(1) Cloud accounting and Internet banking

Both cloud accounting and Internet banking are based on the use of the Internet, and can therefore be considered to possess a high degree of affinity. When we look at the rate of linkage between in-house systems and Internet banking by the specific IT tool employed in accounting, we find that the result for cloud accounting software is approximately 8 points higher than for packaged accounting software for computer installation (Fig. 2-4-31).

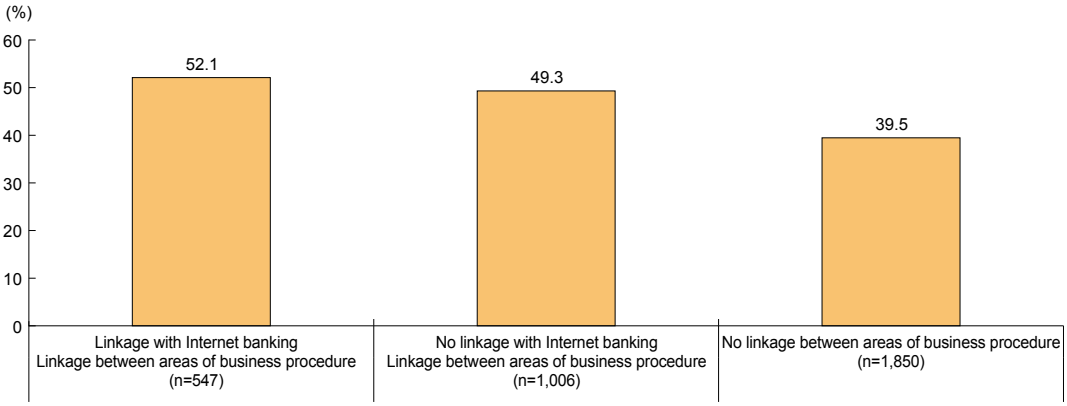
Fig. 2-4-31 Rate of functional linkage with Internet banking (by IT tool used in accounting)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Functional linkage with Internet banking" refers to a situation in which functional linkage has been realized between different areas of procedure in the in-house system, and the system is also linked with Internet banking.
2. The responses "All procedures are outsourced," "We don't use any particular IT tools" and "Other" are not shown.
3. "Using own company systems, etc." aggregates the responses "Using system developed in-house," "Using system developed based on external commission" and "Using office software."

Based on Fig. 2-4-32, we can consider that companies that have established functional linkage between their in-house system and Internet banking represent a higher proportion of those companies reporting increased labor productivity against three years previously, and the introduction of cloud accounting software makes a greater contribution to increased productivity than packaged accounting software for computer installation.

Fig. 2-4-32 Realization or non-realization of functional linkage with Internet banking and labor productivity



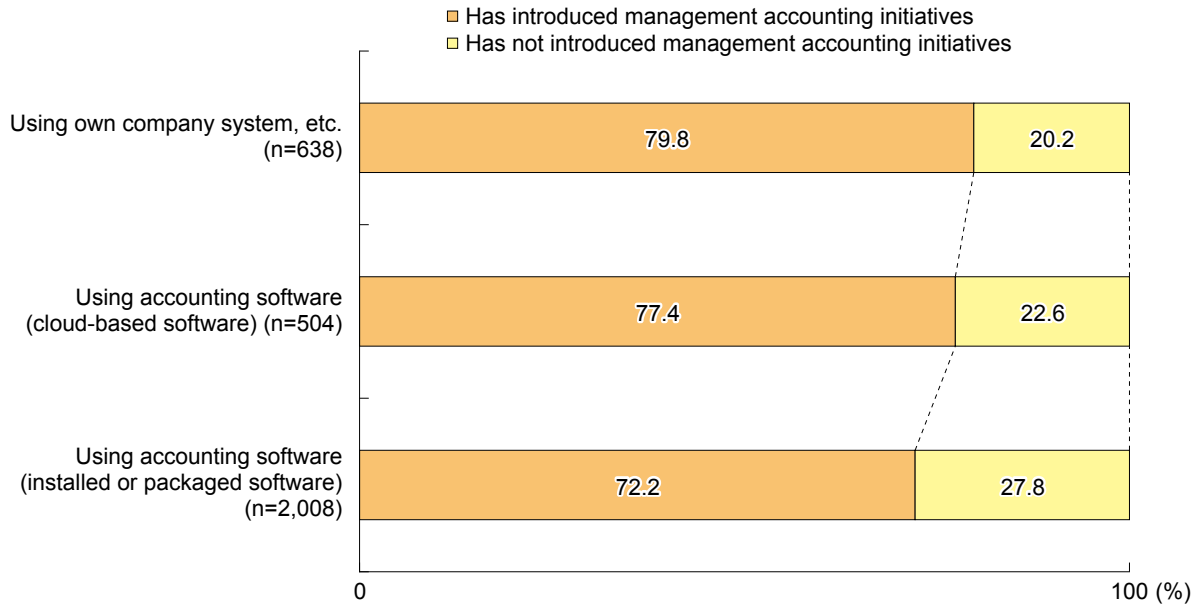
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Shows ratio of companies responding "Labor productivity has increased considerably" and "Labor productivity has increased slightly" compared to three years previously.

(2) Cloud accounting and management accounting

In Section 1, we pointed out that two advantages of cloud accounting are that it provides managers with time to devote to thinking about management, and that it provides managers with the opportunity to fully grow into the role of "manager" while considering daily sales. Here, we focus on the degree to which initiatives in the areas such as profit management and cost management to contribute to management decision-making (i.e., management accounting) differ depending on the IT tools used in accounting procedures.

Looking at the rate of adoption of management accounting initiatives by the IT tools used in accounting procedures, we find that the figure is about five points higher for cloud accounting software against packaged accounting software for computer installation (Fig. 2-4-33).

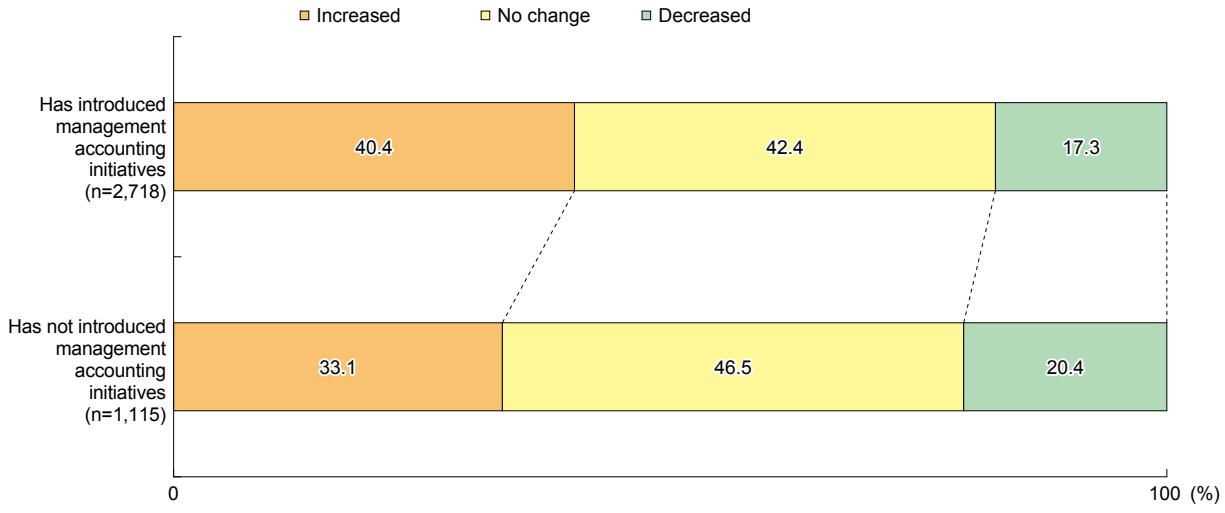
Fig. 2-4-33 Rate of adoption of management accounting initiatives (by IT tool used in accounting)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Here, "management accounting" refers to initiatives such as profit management and cost management to contribute to management decision-making.
2. "Using own company systems, etc." aggregates the responses "Using system developed in-house," "Using system developed based on external commission" and "Using office software."

Based on Fig. 2-4-34, a higher proportion of companies that are employing management accounting report an increase in current profit. From this perspective also, we can therefore consider that the use of cloud accounting software makes a greater contribution to increased productivity than packaged accounting software for computer installation.

Fig. 2-4-34 Introduction or non-introduction of management accounting initiatives and current profit in most-recent three-year period



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Here, "management accounting" refers to initiatives such as profit management and cost management to contribute to management decision-making.

Case 2-4-10 Colors Co., Ltd.

A company that after adopting a cloud-based accounting system added cloud-based handling of personnel and labor, and by linking functions achieved a significant improvement in operational efficiency

Colors Co., Ltd. (employees: 35; capital: ¥6.1 million) located in Ota City, Tokyo, is a nursing care business whose mainstay is its home nursing service. The company's business has gone smoothly since its founding in 2011. However, in conjunction with increases in the numbers of both customers and employees, administrative tasks such as generating bill-payment receipts and payroll have ballooned. This created difficulties for outside parties such as the certified public tax accountant and certified social insurance and labor consultant to whom such jobs had been outsourced. Right around the time when Colors was being hard-pressed to find new outsourcing services, the company came across cloud services that would be perfect for the task. They found a certified public tax accountant who also worked as an advisor on cloud-based accounting services and moved to adopt just such a system.

Kumiko Tajiri, President

Colors had outsourced the jobs and because of this had no previous experience in handling of its accounts, so they would not have been able to effective use of cloud-based accounting merely by adopting its use. Accordingly, they asked the certified public tax accountant to both help them to bring the system into use and also to improve the company's accounting work. The introduction of the cloud-based accounting service went well as a result, and so Colors also adopted a cloud-based system for handling personnel and labor affairs. Linking these two types of services together made it possible to promptly adjust the accounts to reflect payroll-related data (bank transfers of wages, social insurance expenses, and deposits held for income tax withholding and local resident's tax), and also have the data in the cloud-based accounts on the expenses calculated be reflected in the pay stubs handled by the cloud-based personnel and labor affairs system. These improvements in operational efficiency made it possible to receive guidance on matters beyond the mere outsourcing of administrative tasks.

Adopting these cloud-based systems made it possible for Colors to complete administrative tasks that it once took outsourcing services two months in-house within 30 minutes a week. This in turn made it possible to review management indices of all sorts as they were updated. Eventually, all tasks were handled in-house, and as a result the company cut down on outsourcing service fees by upwards of ¥500,000 annually. Also, making contact with certified public tax accountants and certified social insurance and labor consultants through cloud services online enabled to Colors to share the challenges they were facing in their business with these advisors on a regular basis. That allowed them to check all manner of business administration advice and trial balance sheets in real time as they consulted on management issues. The usage fees for these two cloud-based services run to several thousands of yen per month combined, and the consultant costs related to bringing these services online were ¥300,000.

"Given the budget of an SME, we thought it was unrealistic from a cost perspective to develop and own our own system," explains President Kumiko Tajiri, "and if we wanted expandability then cloud services would be the only option. Before we adopted these services, we worked hard to prioritize the work involved on the basis of having subdivided the work flow. After adopting them, we concentrated on explaining to our employees about how to use them. Making it possible for employees to see the work of running the business also made it possible to share with them in real-time what management conditions were, and this also made it possible to devise and implement management strategies with an eye to the future."

Case 2-4-11 Green Care Co., Ltd.

A company that achieved positive results by steadily working to adopt a cloud service that offers functions in multiple areas of business while picking and choosing which of those functions to actually use

Green Care Co., Ltd. (employees: 8; capital: ¥23 million), located in Sendai City, Miyagi Prefecture, operates a specialty shop for the garden and home exteriors business; designs and builds gardens and exteriors; handles wooden decks, carports, and storage sheds; works on garden and sun rooms; and directs civil engineering and tree-planting projects.

The companies in the home exteriors industry handle the building of gates, ditches, and gardens after the house itself has been built. They are mainly subcontracted by home builders, and most are family-run enterprises whose president is the main salesperson. Green Care was a similar sort of company until seven years ago when Managing Director Toshihiro Suzuki–the president's eldest son–changed to an original contractor business model that received orders directly from homeowners. At first, the company lacked the know-how and found it difficult to attract homeowner customers. However, it gradually became easier to come up with proposals and settle on project specifications in direct contact with such customers and the company's profit ratio improved.

However, the original contractor customers all come through new business building; the company had no contact with customers for whom they already done projects. Also, four of the sales staff were not part of the organization. They were like a collection of people with independently owned businesses. The situation as a result was one in which the company did not who was doing what. Guided by his desire to change the company over from family business to enterprise, Suzuki decided it need the tools that would turn customer management and sales support into things that could be trackable as part of getting away from the work being associated with specific individuals. Studying the issue in collaboration with his employees, he decided to bring cloud services into play.

Even if they were adopted, however, they would be meaningless if employees didn't use them. In light of the fact that the company had failed when adopting IT tools in the past, Suzuki carefully picked and chose which features he needed as he steadily moved forward with adopting the services. The service chosen had a wide range of features. He decided to avoid using all of them at the start and instead with a focus on those features that would support sales homed in on customer management and groupware (which would allow schedules to be shared in a calendar format). The company continued to use software it already had still under contract to deal with personnel, payroll, accounting, and financial affairs, and exported the relevant data in CSV format for importing into the cloud service. The service had a favorable impact for its ability to create links among different operational areas. Information had already been loaded into the customer management area did not have to be input again for sales support, for example, while the groupware calendar would be updated with information about projects registered in the sales support area. The service also made it easy to check up on the progress of sales proposals, and the efficiency of administration was improved compared to before when proposals were managed on whiteboards equal to the number of salespersons.

In the three years since the services were adopted, Green Care also got a clearer view of its sales activities and made improvements. The percentage of sales proposals that led to contracts rose from 53% to 63%, while the percentage of cases in which the company was left waiting to hear back from a customer fell from 28% to 15%. The average number of meetings that had to be arranged per proposal was reduced from 5.2 to 4.2, making a major contribution to reducing overtime. The service also helped make it possible for everyone to work together as an organization to generate repeat business. The initial adoption costs totaled ¥100,000 and monthly user charges for eight people are approximately ¥50,000. Suzuki believes the services have had a tremendous impact.

"There are still areas that need to be addressed, but there are many that have already been improved," he says. "There are considerable benefits from having brought cloud services into play."

Cloud services screen (one section, extracted and zoomed)

Green Care exhibition site

Section 4 Increased added value and use of advanced IT

In the preceding sections, we focused mainly on IT use related to increased efficiency and labor-saving benefits. In Section 4, we will look at IT use that increases added value and the use of advanced IT.

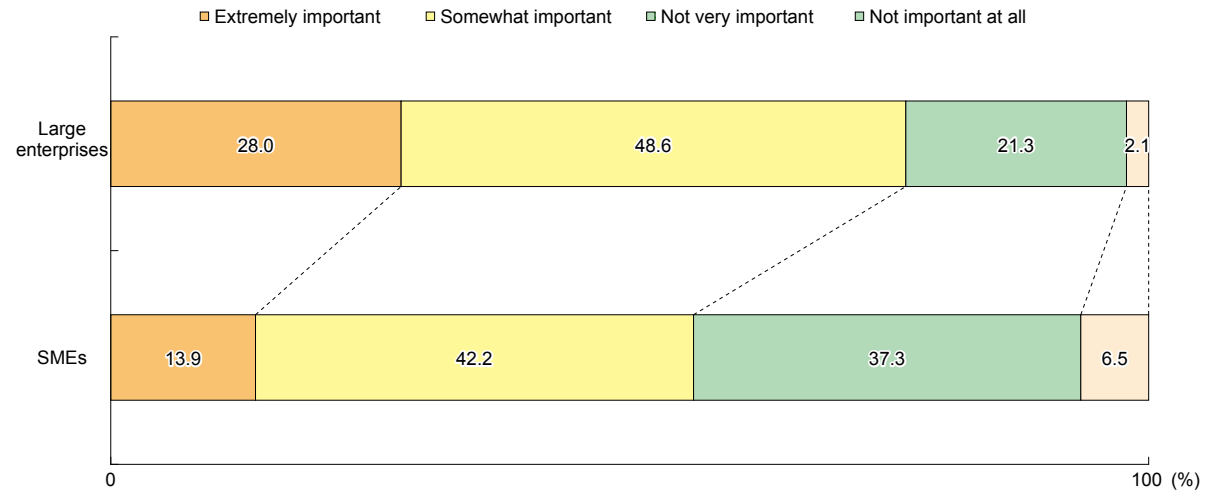
1. Increased added value and inter-company cooperation

In order to increase labor productivity, it is important to focus not only on the amount of labor input, the denominator, but also on added value, the numerator. IT use that attempts to realize not only cost reductions but also increased sales and added value is known as "offensive IT use," and the Ministry of Economy, Trade and Industry is making efforts to promote it, for example through the formulation of "Guidelines for Offensive IT Use"[9] and the selection of the "Top 100 SMEs conducting Offensive IT Management."[10]

(1) Level of importance accorded to offensive IT

While they still fall short of large companies in this area, almost half of SMEs surveyed responded that they viewed offensive IT as important (Fig. 2-4-35).

Fig. 2-4-35 Level of importance accorded to "offensive IT"



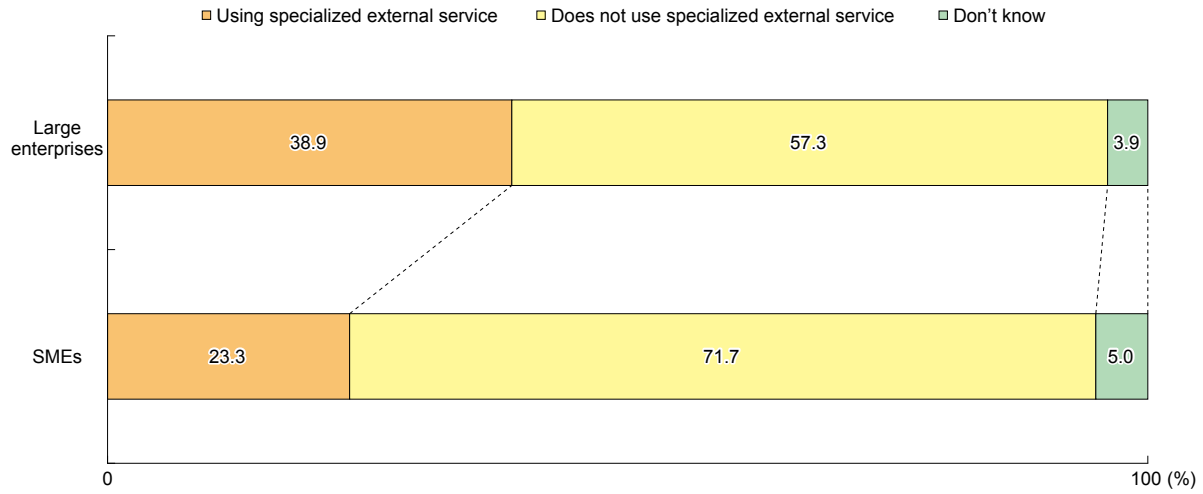
Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Note: This survey defined IT use that attempts to realize not only cost reductions but also increased sales and added value as "offensive IT use."

(2) Offensive IT and use of external IT services

Fig. 2-4-36 shows results for companies responding that they used a specialized external service (IT-related consultation services, etc.) for at least one of the following purposes: "To formulate plans for IT use," "To assist in the introduction and utilization of IT," "To evaluate IT use," and "To help us grasp market trends." While they still fall behind large companies in this area, SMEs are also using specialized external services in order to realize offensive IT, with more than 20% of companies falling into this category.

9) For details, please visit the METI homepage. (http://www.meti.go.jp/policy/it_policy/investment/dounyu_guidelines/)
10) For details, please visit the METI homepage. (http://www.meti.go.jp/policy/it_policy/investment/it_keiei/100sen.html)

Fig. 2-4-36 Use of specialized external services towards the realization of “offensive IT”

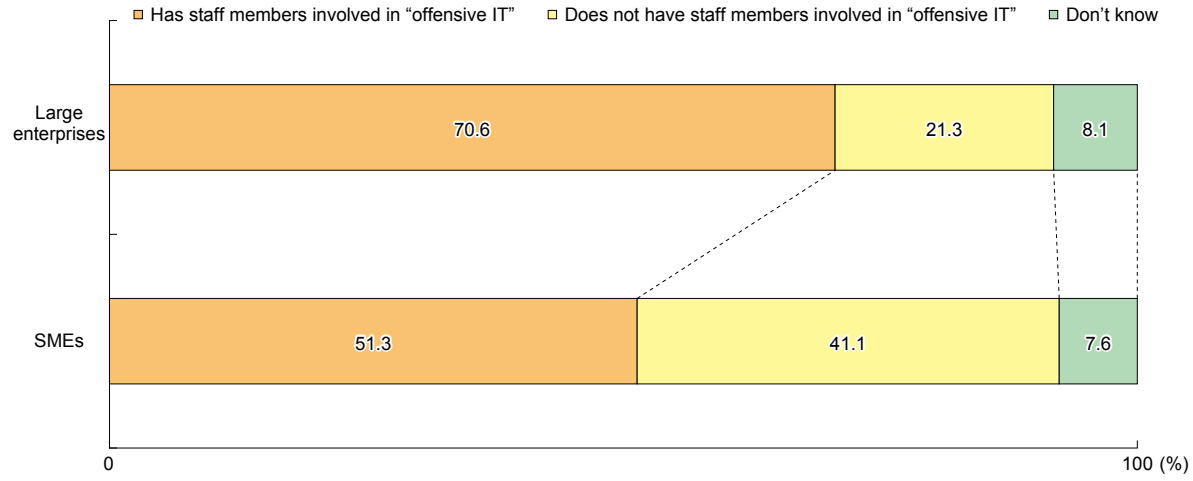


Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Note: “Use specialized external service” includes companies responding that they used a specialized external service (IT-related consultation services, etc.) for at least one of the following purposes: “To formulate plans for IT use,” “To assist in the introduction and utilization of IT,” “To evaluate IT use,” and “To help us grasp market trends.”

(3) Offensive IT and presence of staff members involved with offensive IT

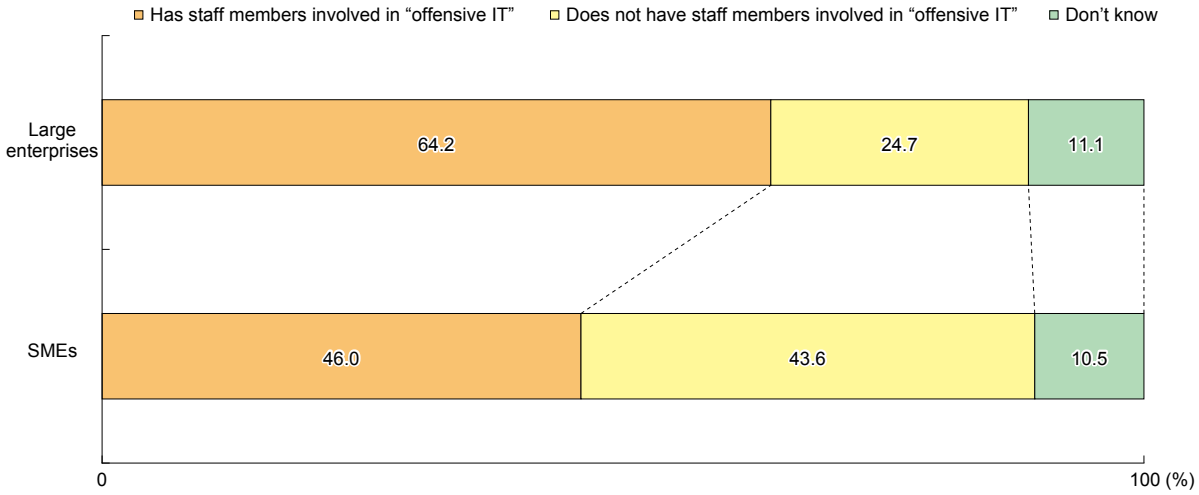
While they still fall behind large companies in this area, around 50% of SMEs surveyed responded that they had staff members engaged in the proposal of plans for “offensive IT” and in the implementation and realization of “offensive IT” (the processes following the proposal of plans) (Figs. 2-4-37 and 2-4-38).

Fig. 2-4-37 Ratio of companies with staff members engaged in the proposal of plans for “offensive IT”



Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Note: This survey defined IT use that attempts to realize not only cost reductions but also increased sales and added value as “offensive IT use.”

Fig. 2-4-38 Ratio of companies with staff members engaged in the implementation and realization of "offensive IT"

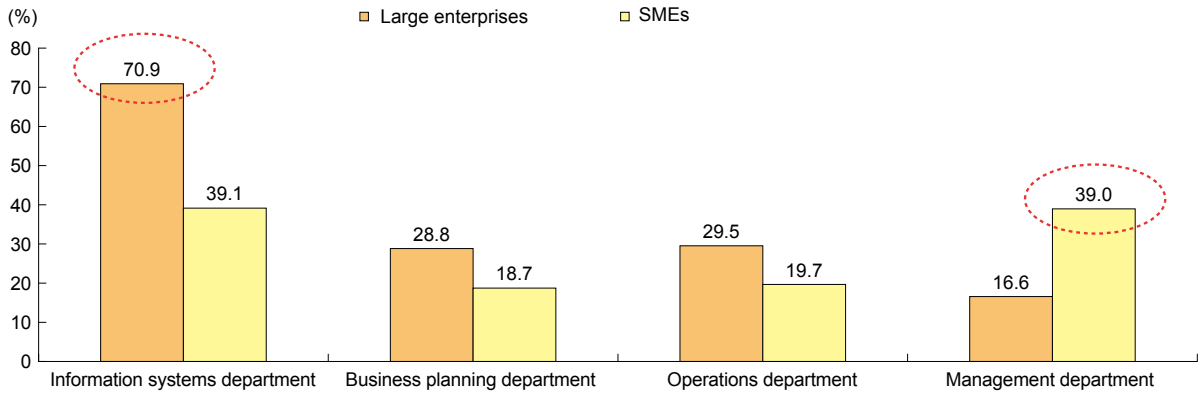


Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Notes: 1. This survey defined IT use that attempts to realize not only cost reductions but also increased sales and added value as "offensive IT use."
2. Here, implementation and realization refer to processes following the proposal of plans.

(4) Offensive IT and departments to which staff members involved belong

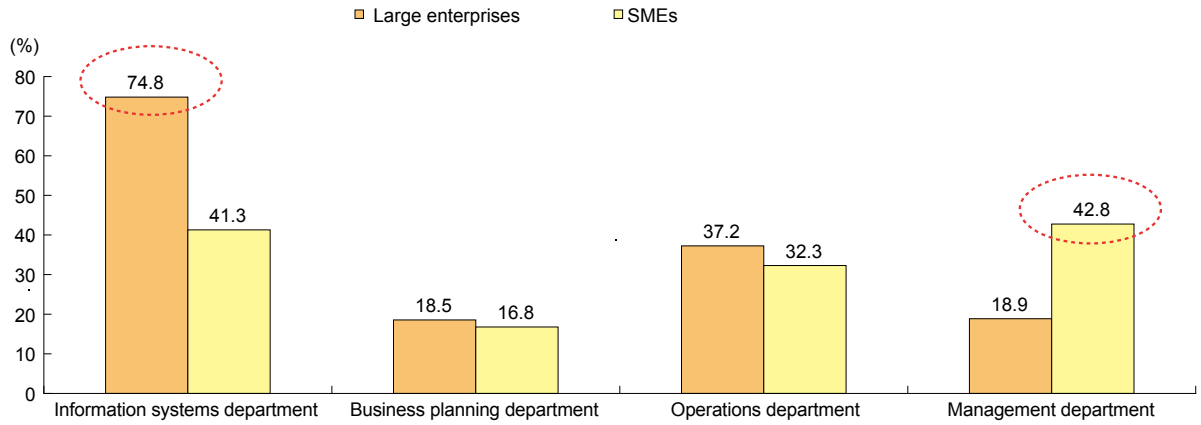
Looking at the departments to which staff members involved in the proposal of plans for or the implementation and realization of "offensive IT" belong, we find that the most frequent response is "Information systems department" in the case of large companies, while for SMEs it is "Management department" (Figs. 2-4-39 and 2-4-40). This can be seen as being due to the fact that many SMEs do not have dedicated IT departments, and put their management departments into service in this area.

Fig. 2-4-39 Departmental affiliation of staff members engaged in the proposal of plans for "offensive IT"



Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Notes: 1. This survey defined IT use that attempts to realize not only cost reductions but also increased sales and added value as "offensive IT use."
2. Ratio of responses for companies with staff members engaged in the proposal of plans for "offensive IT."
3. Total does not always equal 100% as multiple responses were possible.
4. Does not show the responses "Other" and "Don't know."

Fig. 2-4-40 Departmental affiliation of staff members engaged in the implementation and realization of “offensive IT”

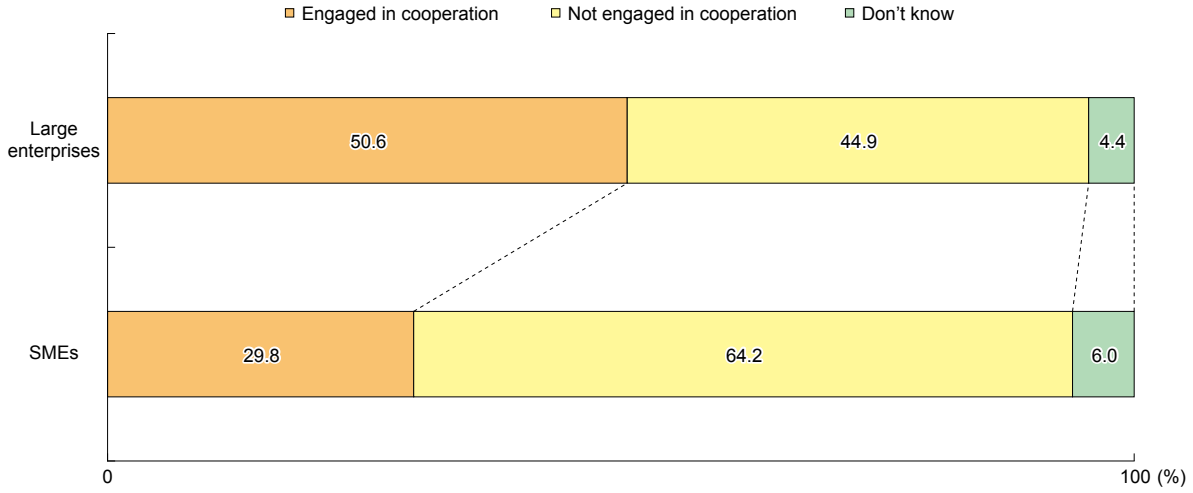


Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Notes:
1. This survey defined IT use that attempts to realize not only cost reductions but also increased sales and added value as “offensive IT use.”
2. Here, implementation and realization refers to processes following the proposal of plans.
3. Ratio of responses for companies with staff members engaged in the implementation and realization of “offensive IT.”
4. Total does not always equal 100% as multiple responses were possible.
5. Does not show the responses “Other” and “Don’t know.”

(5) Offensive IT and inter-company cooperation

While they still fall behind large companies in this area, approximately 30% of SMEs surveyed were engaged in inter-company cooperation (Fig. 2-4-41).

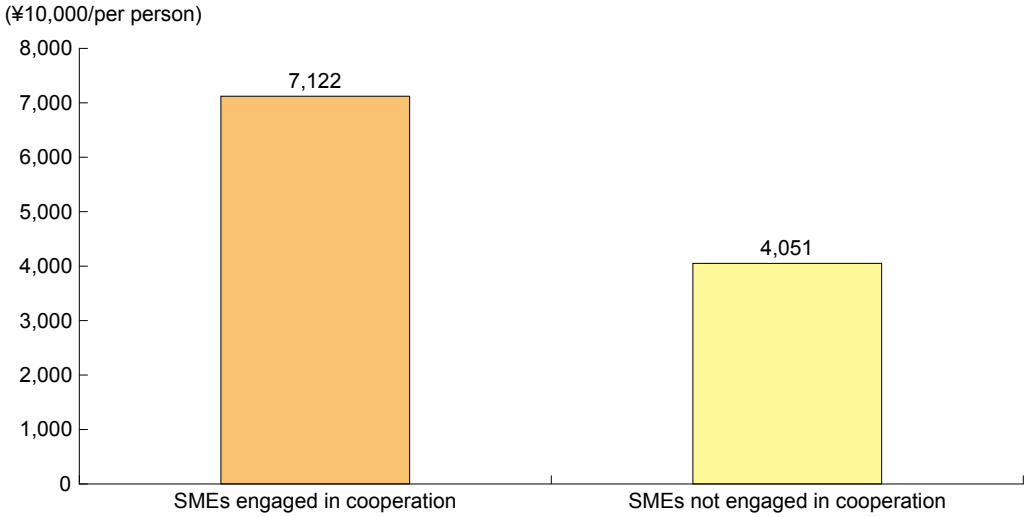
Fig. 2-4-41 Implementation or non-implementation of inter-company cooperation towards the realization of “offensive IT”



Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Note: “Engaged in cooperation” includes companies involved in cooperation with at least one of the following: “A company or companies in the same industry,” “A company or companies in another industry,” or “A Group company or companies.”

When we look at the effects of inter-company cooperation for SMEs, we find that average sales figures per employee are higher for companies that engage in cooperation than for companies that do not (Fig. 2-4-42).

Fig. 2-4-42 Inter-company cooperation towards the realization of "offensive IT" and sales figures per employee



Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Note: "Sales figures per employee" shows the average figure for each classification. Here, sales figures are total sales for a one-year period (income from sources other than sales is not included).

(6) Inter-company data cooperation

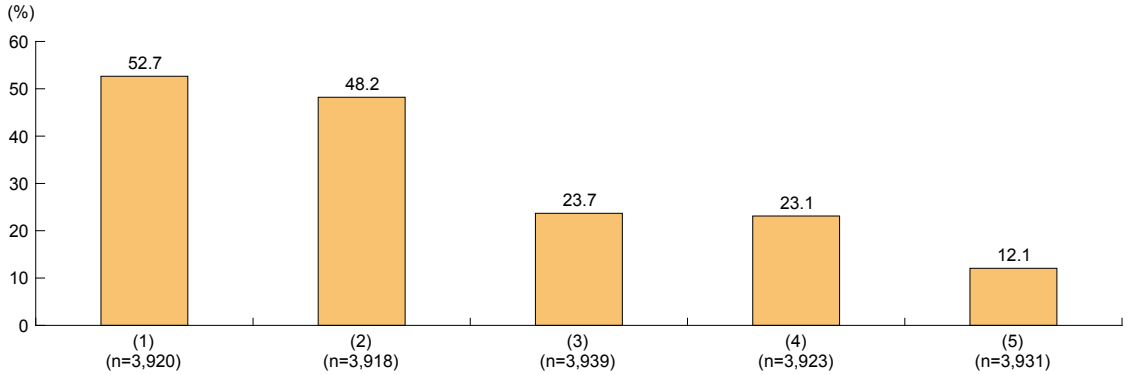
Inter-company data cooperation plays an important role in the realization of inter-company cooperation through the use of IT, but the Smart SME Study Group and other organizations have pointed to negative aspects of inter-company data cooperation by SMEs as points of concern. Fig. 2-4-43 shows the results of a consideration of trends in inter-company data cooperation based on these points of concern.

Approximately 50% of companies surveyed reported concerns over trade secrets being leaked outside the company or that they may be disadvantaged in their relationships with major customers. More than 20% of SMEs surveyed indicated that they had been requested by major customers to introduce different systems in order to enable inter-company data cooperation. Looking at contract-related results, we find that a little over 20% of SMEs responded "We have an understanding of what types of contract to conclude when proceeding with inter-company data cooperation," and a little over 10% of SMEs indicated "We are aware of the "Contract Guidelines related to Data Use Rights"[11] relating to the use of data between companies."

11) For details, please visit the METI homepage. (http://www.meti.go.jp/press/2017/05/20170530003/20170530003.html)

Fig. 2-4-43 Inter-company data cooperation: Trends and responses

(1) We are concerned when proceeding with inter-company data cooperation that trade secrets (proprietary knowhow, etc.) might be unintentionally leaked outside the company.
(2) We are concerned when proceeding with inter-company data cooperation with major clients that the use of the data might be disadvantageous to our company.
(3) We have been requested to introduce different systems for the purpose of inter-company data cooperation by multiple major clients.
(4) We have an understanding of what types of contract to conclude when proceeding with inter-company data cooperation.
(5) We are aware of the "Contract Guidelines related to Data Use Rights" relating to the use of data between companies.



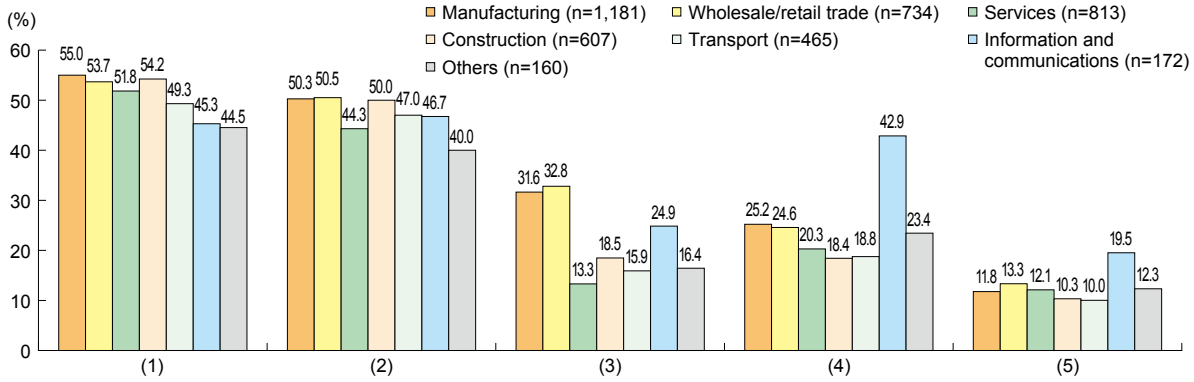
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Looking at results by industry sector, we find that concern over the leaking of trade secrets or being disadvantaged in relationships with major customers is slightly higher among companies in the manufacturing, wholesale/retail and construction sectors than in other sectors (Fig. 2-4-44). The proportion of SMEs that have actually been requested to introduce different systems is particularly high in the manufacturing and wholesale/retail sectors.

Looking at contracts formulated as a countermeasure, we find that both the response "We have an understanding of what types of contract to conclude when proceeding with inter-company data cooperation" and the response "We are aware of the "Contract Guidelines related to Data Use Rights" relating to the use of data between companies" are high among companies involved in the information and communications sector.

Fig. 2-4-44 Inter-company data cooperation: Trends and responses (by industry sector)

(1) We are concerned when proceeding with inter-company data cooperation that trade secrets (proprietary knowhow, etc.) might be unintentionally leaked outside the company.
(2) We are concerned when proceeding with inter-company data cooperation with major clients that the use of the data might be disadvantageous to our company.
(3) We have been requested to introduce different systems for the purpose of inter-company data cooperation by multiple major clients.
(4) We have an understanding of what types of contract to conclude when proceeding with inter-company data cooperation.
(5) We are aware of the "Contract Guidelines related to Data Use Rights" relating to the use of data between companies.



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Total does not always equal 100% as multiple responses were possible.

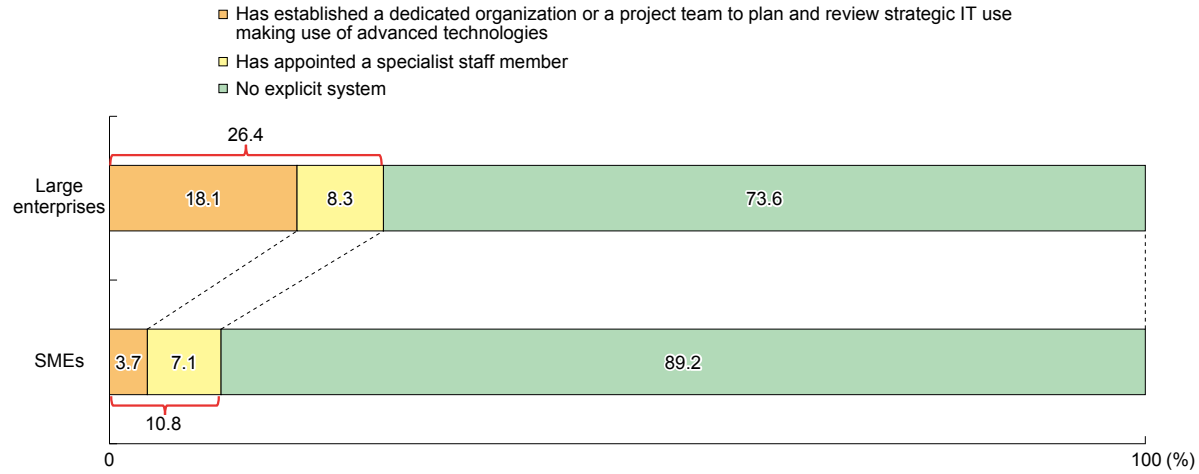
2. Use of advanced IT

In relation to the use of advanced IT, we will look at topics including the use of artificial intelligence (AI), big data and the Internet of Things (IoT). In the New Industrial Structure Vision[12] published in May 2017, AI, big data and the IoT are positioned as technologies forming part of the Fourth Industrial Revolution. The report seeks to provide the world's first optimal model, produced in Japan, of the realization of a virtuous cycle of productivity increase and wage increase by ensuring that Fourth Industrial Revolution technologies are applied not only in cities and by major companies, but extended to regional areas, SMEs and the elderly.

(1) Systems for planning and review of strategic IT use employing advanced technology

Looking at systems for planning and review of strategic IT use employing advanced technology such as the IoT, big data and AI, we see that approximately 26% of large companies and approximately 11% of SMEs have explicitly defined systems (Fig. 2-4-45).

Fig. 2-4-45 Systems for planning and review of strategic IT use employing advanced technology



Source: Recompiled from METI, *2016 Survey of Conditions in Information Processing*.
Note: For this question, "advanced technology" referred to the IoT, big data, AI, etc.

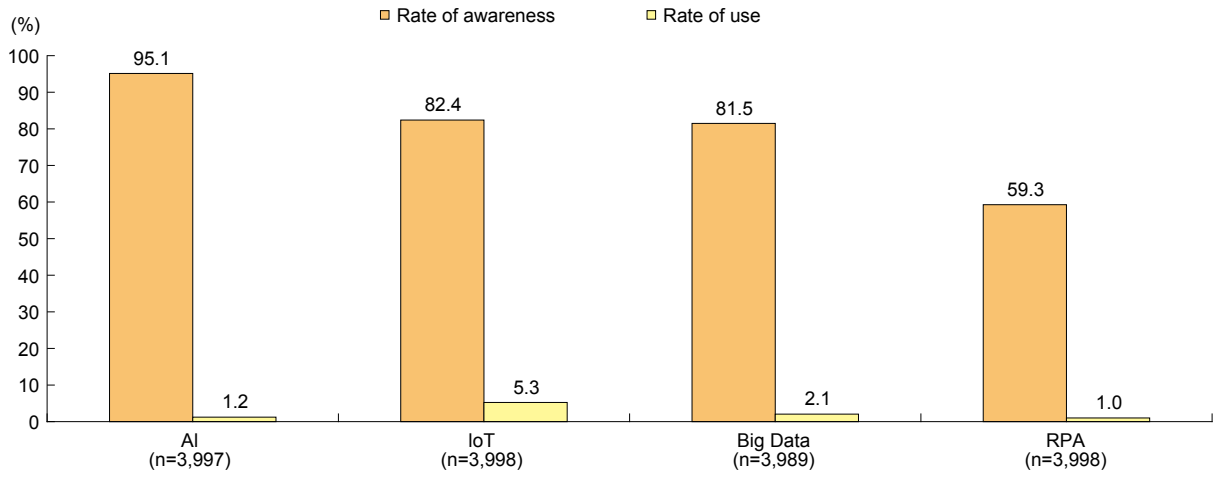
(2) Advanced technology: Rate of awareness and rate of use

Fig. 2-4-46 shows companies' level of awareness and rate of utilization of AI, the IoT, big data and robotic process automation (RPA)[13]. RPA utilizes cognitive technologies (rule engines, AI, machine learning, etc.) able to perform more sophisticated procedures in place of humans to act as a proxy or substitute for human operators[14].

Ranked in order of level of awareness, we have AI, the IoT, big data and RPA; ranked in order of rate of use, we have the IoT, big data, AI and RPA. While managers are aware of AI, the IoT and big data, their use by SMEs remains limited.

12) For details, please visit the METI homepage. (http://www.meti.go.jp/press/2017/05/20170530007/20170530007.html)
13) RPA is also known as "digital labor" and "software robots."
14) METI, *Report on the 2016 Survey of the Actual Status of Core Technologies in the Manufacturing Sector (Survey regarding the Orientation towards Innovation in Japan's Manufacturing Industry)*

Fig. 2-4-46 Rate of awareness and rate of use by IT keyword



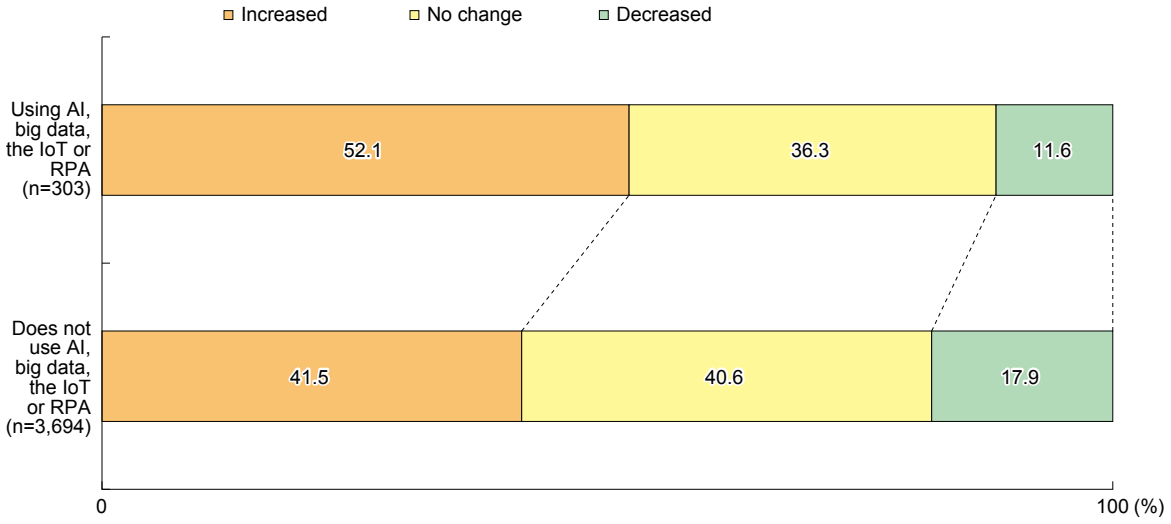
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Notes: 1. Here, "Rate of use" refers to the ratio of the response "We are aware of the technology and are already using it" in valid responses.
2. Here, "Rate of awareness" refers to the ratio of responses other than "Not aware of the technology" in valid responses.

RPA, for which the level of awareness and the level of use is lower than for the other three technologies, is beginning to become the subject of attention as a tool for the realization of increased productivity in back office departments. Case 2-4-18 provides a case study of a private sector company that has increased productivity using RPA.

(3) Use of advanced technologies and status of business

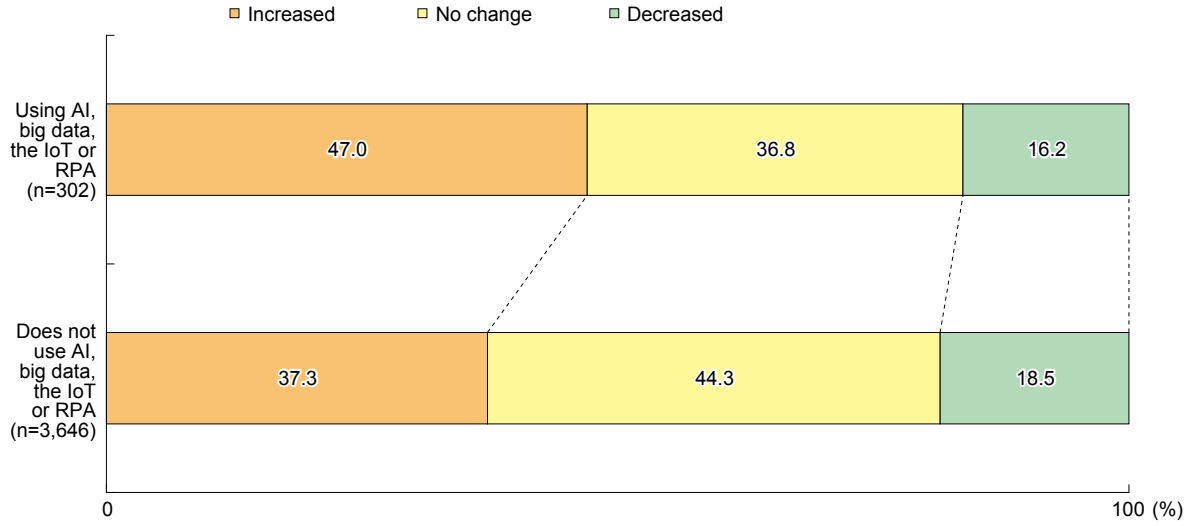
Looking at the status of companies' business (sales, current income, labor productivity compared to three years previously) by their use of or failure to use advanced technologies, we see that the ratio of companies reporting increasing sales and current income is higher among companies utilizing at least one of the advanced technologies AI, big data, IoT, or RPA than among companies that do not; the ratio of these companies is also higher among companies reporting increased labor productivity compared to three years previously (Figs. 2-4-47, 2-4-48 and 2-4-49).

Fig. 2-4-47 Use of or failure to use advanced technologies (AI, big data, the IoT and RPA) and sales



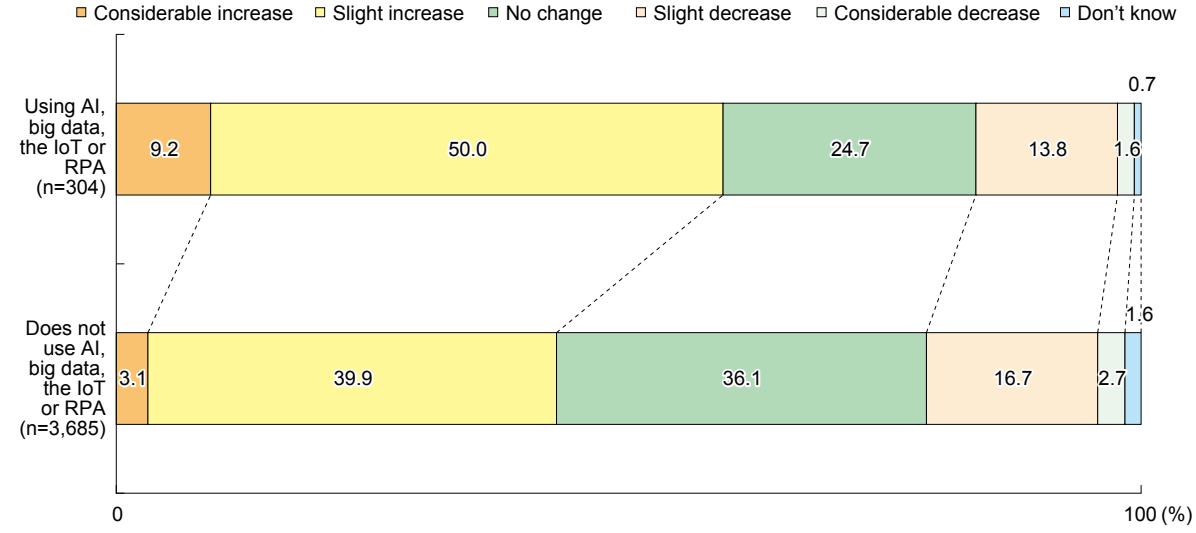
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: "Company uses AI, big data, the IoT or RPA" includes companies responding that they use at least one of the advanced technologies AI, big data, the IoT or RPA.

Fig. 2-4-48 Use of or failure to use advanced technologies (AI, big data, the IoT and RPA) and current income



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: "Company uses AI, big data, the IoT or RPA" includes companies responding that they use at least one of the advanced technologies AI, big data, the IoT or RPA.

Fig. 2-4-49 Use of or failure to use advanced technologies (AI, big data, the IoT and RPA) and labor productivity



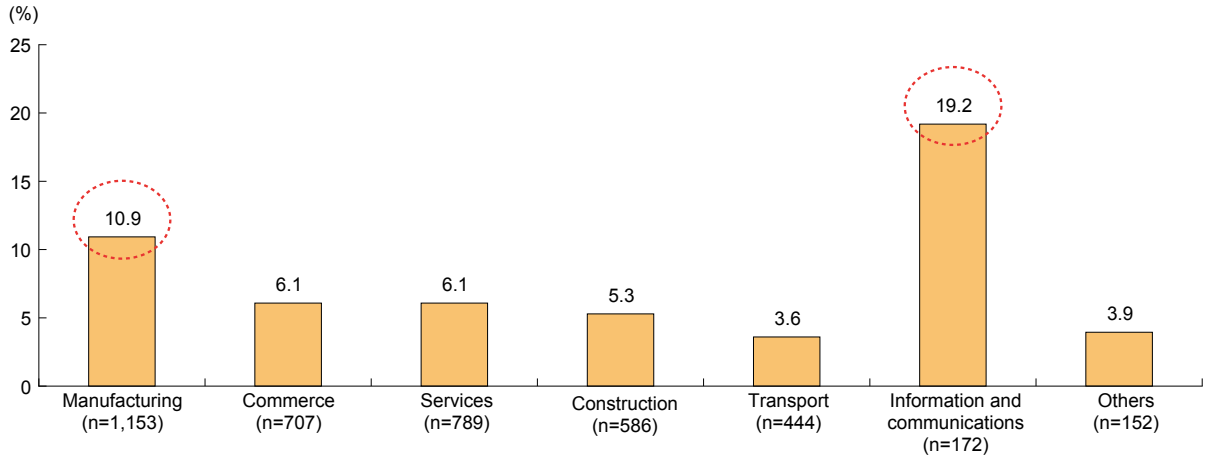
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: "Company uses AI, big data, the IoT or RPA" includes companies responding that they use at least one of the advanced technologies AI, big data, the IoT or RPA.

(4) Stratum in which rate of use of advanced technologies is high

Here, we will look at the ratio of companies responding that they use at least one of the advanced technologies AI, big data, the IoT or RPA by industry sector, number of employees, age of managers, and number of years since establishment.

Considering the business sector in which the companies are involved, we find that the information and communications sector is the highest, at approximately 20% of companies. This is followed by the manufacturing sector, at a little more than 10%. The transport sector is the lowest, at a little over 3% (Fig. 2-4-50).

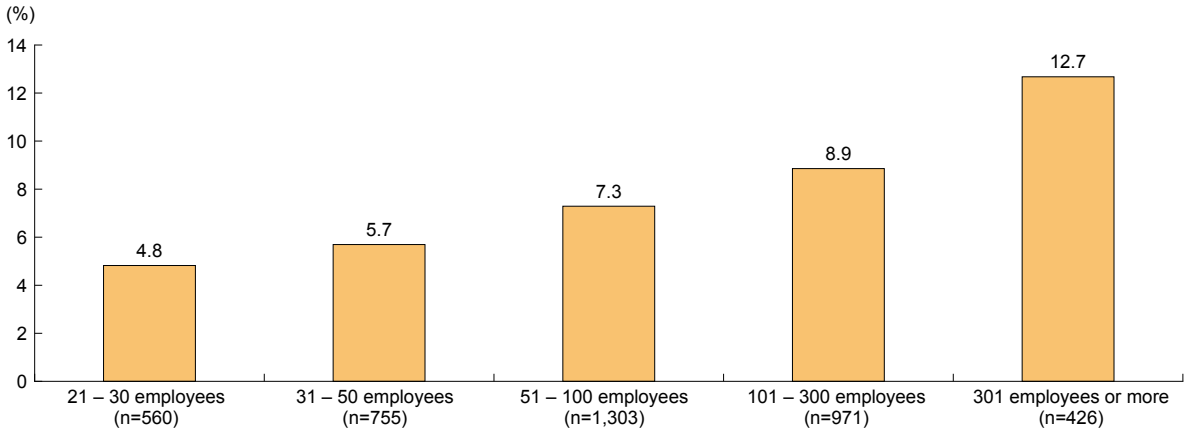
Fig. 2-4-50 Rate of use of advanced technologies (AI, big data, the IoT and RPA) (by industry sector)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: "Company uses AI, big data, the IoT or RPA" includes companies responding that they use at least one of the advanced technologies AI, big data, the IoT or RPA.

Considered by number of employees, we see that the rate of use of advanced technologies increases as the number of employees increases (Fig. 2-4-51).

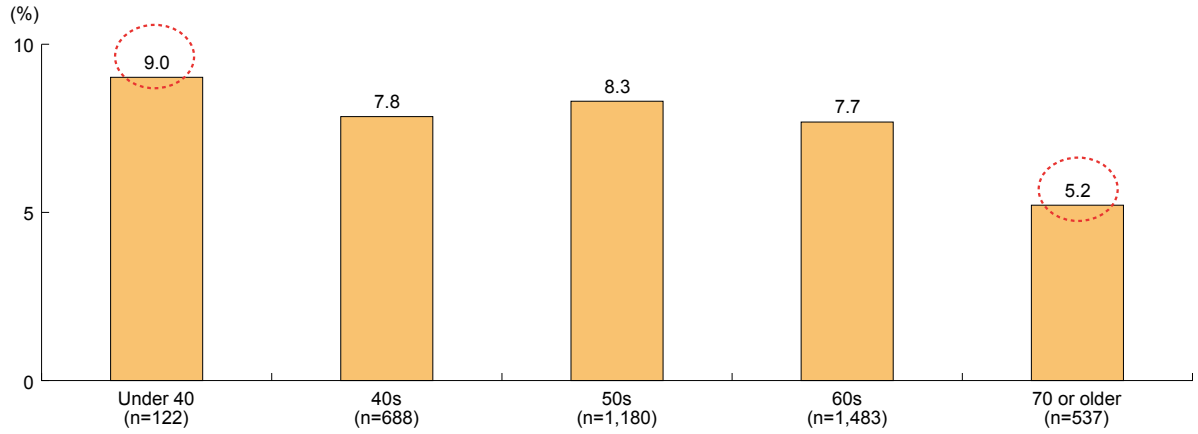
Fig. 2-4-51 Rate of use of advanced technologies (AI, big data, the IoT and RPA) (by number of employees)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: "Company uses AI, big data, the IoT or RPA" includes companies responding that they use at least one of the advanced technologies AI, big data, the IoT or RPA.

Considered by age of managers, we find that the rate of use is highest among companies with managers under 40 years of age, while it is lowest among companies with managers of 70 years of age or older (Fig. 2-4-52).

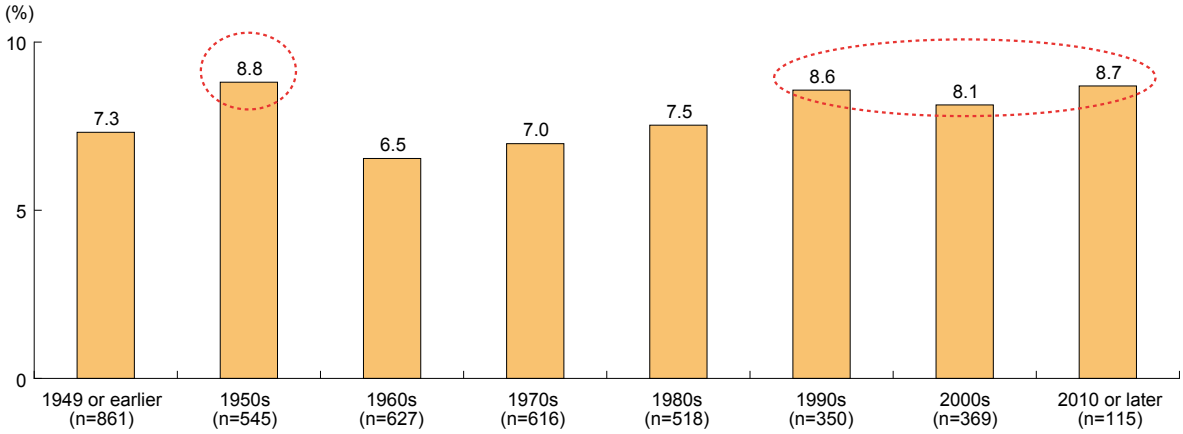
Fig. 2-4-52 Rate of use of advanced technologies (AI, big data, the IoT and RPA) (by age of managers)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: "Company uses AI, big data, the IoT or RPA" includes companies responding that they use at least one of the advanced technologies AI, big data, the IoT or RPA.

Considered by the number of years since the company's establishment, we see that the rate of use is the highest for companies established in the 1950s, followed by companies established in the 1990s and after (Fig. 2-4-53).

Fig. 2-4-53 Rate of use of advanced technologies (AI, big data, the IoT and RPA) (by number of years since company's establishment)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: "Company uses AI, big data, the IoT or RPA" includes companies responding that they use at least one of the advanced technologies AI, big data, the IoT or RPA.

Case 2-4-12 Konno Corporation

A company working to expand its opportunities to get orders by linking data among companies through the use of IT

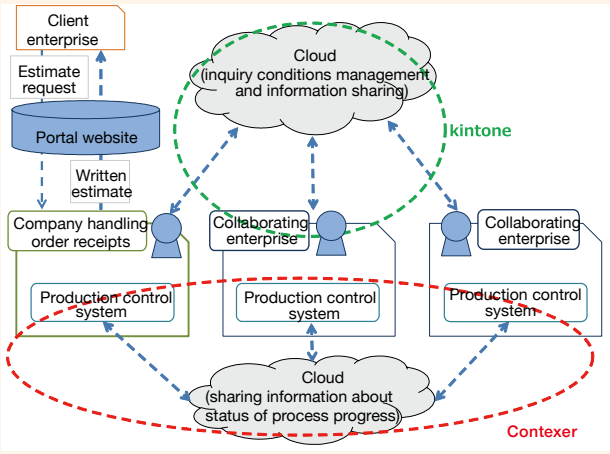
Konno Corporation (employees: 36; capital ¥30.2 million), located in Adachi City, Tokyo, is a manufacturer with hydraulic machinery and sheet metal processing as its two primary businesses. Occasioned by the company's sales falling by almost half due to the Lehman crisis, Konno Corp. set about boosting its ability to get orders for custom-made articles with the goal of cultivating demand. However, sustaining this work became difficult owning to the increasing complexity of managing order receipts, production, and sales for small-lot items.

Konno Corp. analyzed the reasons for why they fallen into such circumstances. They determined there were three factors. One, as the work became increasing complex specific tasks came to be associated with specific individuals. Two, the use of IT for the production control process was inadequate (limited to Excel), and the ability to view and share production, sales, and inventory data was lacking. Three, the company's three offices (in Tokyo, Osaka, and Fukushima) relied phone calls and email for sharing information, which was inadequate for the timely sharing of information and collaborations. In an effort to reexamine the work that had become complex, everyone from workers on the ground to managers in their offices was involved in a half-year effort to sort out the work being done throughout the company and sharing their findings on an operations flow chart. The company also adopt the use of an IT tool equipped with a cloud feature called Contexer for handling production processes and another called Kintone for sharing information among the business offices.[15] These created an environment that allowed for the sharing of information about the status of inquiries, order receipts, production, and inventory throughout the company practically in real-time. Through these initiatives the company was able to return to profitability in about four years, retain its staff, and transition to a production-to-order business model.

In light of the great results that had been achieved from using IT, Konno Corp. then had the idea that it could use IT to get joint orders with other enterprises in the same business with different areas of specialization (two enterprises in the sheet metal business). It got a grant from the Tokyo Metropolitan Government and in August 2014 launched its Connected Neighborhood Factories Project. For jointly received orders, the three companies would need to share progress updates after having divvied up the processes based on their respective specializations. For that reason, each would need to manage the production process in the same way. They decided that the other two companies would use the Contexer IT tool that Konno Corp. had already adopted and use the tool's cloud features to manage the progress of production for the jointly received order in question (this mechanism was referred to as "total sheet metal management"). Also, at the stage when discussions were underway before an order had been received, the companies would use a cloud-based communication systems based on Kintone for discussing how to divvy up the processes and coming up with price quotes. To improve convenience for customers making inquiries and placing orders, they also created a joint website called Tokyo Machikoba Monodukuri no Wa.

Hiroyoshi Konno, President

The three companies concerned receive around 30 inquiries annually as a result of their tie-up, and these have led to 15 signed contracts. President Hiroyoshi Konno who spearheaded the initiative says, "Collaborating with peers in our business who specialize in different areas has made it possible to get orders that we would not have been able to handle on our own. For SMEs with limited management resources, being able to coordinate data among enterprises has been an effective means of expanding our customer base."



15) Setting up the IT tools themselves was easy. They have running costs on the order of ¥15,000 to ¥30,000 per month. However, operational applications for production control and the like need to be developed in-house. This did not call for programming, but they did need basic knowledge about information processing technology. The Konno Corporation received assistance from an expert while spending some two years to train personnel who could develop the operational application in-house.

Case 2-4-13 Sitateru Co., Ltd.

A company that built a platform connecting small-to-midsize sewing factories with retailers and improved productivity throughout its supply chain

Sitateru Co., Ltd. (employees: 30), located in Kumamoto City, Kumamoto Prefecture, operates Sitateru, a digital platform for the domestic manufacturing of clothing.

Owing to the complex, multi-layered nature of the distribution structure in Japan, the country's apparel industry is predisposed to high costs. It has been losing market share to those of other countries where production costs are lower. As a result, the domestic textile industry has continued to contract both in numbers of businesses and persons employed.

This decline in the textile industry stirred a sense of crisis in Hidekazu Kawano about the possibility that sophisticated sewing technologies in Japan might be lost, and so in March 2014 he launched a new digital platform for distribution from which his company takes its name, Sitateru.

Sitateru allows the user to view information in its database about more than 1,000 small-to-medium sewing factories around the country and matches them with business persons who want to make clothing such as designers and retailers in urban areas. This makes it possible to handle small-lot production orders with short time frames. The smallest lot sizes possible are 50 units, and production lead times that normally are six to 12 months long can now be reduced to just one or two months. In addition, because Sitateru is positioned between the business person and a partner factory and manages everything from planning to product delivery in an integrated fashion, there is no longer any need for middlemen to get involved and so keeps costs down.

The Sitateru logo

The "Sitateru" clothing manufacturing platform (illustration)

Furthermore, Sitateru is brining IoT into the sewing factories with which it partners. For example, information about the operational status of sewing and cutting machines is captured digitally through sensors that are installed at those factories as part of Sitateru's Smart Factory Project. Consolidating that information about factory operation conditions and the status of orders being received in the cloud promotes linkages that are more precise and operate in real-time. Thanks to this initiative, partner sewing factories are seeing a 5% to 10% reduction in the amount of business downtime and productivity has been improved throughout the supply chain.

The number of partner factories has grown from 5 at Sitateru's founding March 2014 to 300 as of February 2018, while the market circulation value has rise from ¥50 million to approximately ¥3 billion for the same period. The platform has also been of enormous help to small and medium-sized sewing factories in expanding their businesses.

Case 2-4-14 Keiyo Distribution Warehouse, Inc.

A company that is improving value-added for its customers and continually increasing order receipts by building a system for sharing data among companies

Keiyo Distribution Warehouse, Inc. (employees: 170; capital: ¥90 million), located in Toda City, Saitama Prefecture, is a third-party logistics (3PL) business that deals with publications, foodstuffs, daily commodities, tires, and the like mainly around the Kanto (greater Tokyo) area. The 3PL industry handles distribution outsourcing, in which companies offer their customers a variety of ways to improve their distribution handling along with services optimized to their needs.

To provide 3PL services that emphasize efficiency calls for the sharing of data between the customer's sales management systems and Keiyo Distribution's distribution management system with its data on inventories and the like. This is because the company needs to satisfy such varied needs as frequent deliveries of high-mix low-volume products, shortening delivery lead times, and delivering information in real-time.

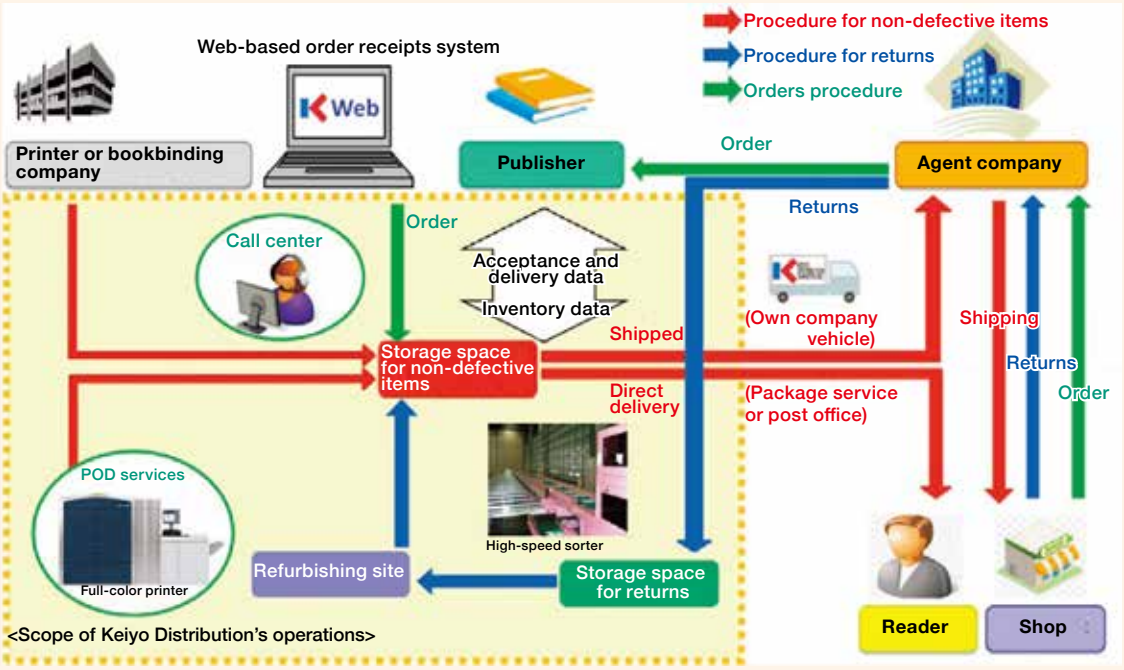
Keiyo Distribution has nine system workers on staff who specialize in distribution, and their forte is in building systems within a short time frame. Flexible responses are important to the company given the many contracts they have for short delivery dates where the development period is three months or less. These are difficult to handle through subcontracting, and handling development in-house was a must in order to take advantage of the company's distribution know-how. There was also customer demand for a system that could update inventory information real-time. Keiyo Distribution had the distribution know-how and system development capabilities to address all these demands.

EDI[16] initiatives were already underway for the case of customers who are major corporations, and there were also some cases where preparations had already been made just on linking two companies together. As for SME customers, on the other hand, both the EDI types and systems varied, making it necessary to develop peripheral features. For those customers that lacked any IT systems, Keiyo Distribution provided systems that would permit the customer to view information about arriving and departing shipments from warehouses and about inventory over the internet.

EDI initiatives have particularly lagged in the area of publication distribution, and even today most orders come by telephone or fax. Keiyo Distribution provides publishing companies with its self-developed K-Web system specifically for that industry. This system uses the internet to provide publishing companies with a variety of services including being able to make inventory inquiries, input orders, and download data of various sorts. Because it is web-based, it can also be accessed via smartphone or tablet computer. About half of the publishing companies with which Keiyo Distribution does business are using this system at present.

Keiyo Distribution is also investing in labor-saving initiatives with respect to the task of picking in warehouses, and is looking into the use of AI and robotics. The company's policy for the road ahead is to adopt cutting-edge technology without delay, work on further efforts at labor-saving and productivity improvements, and connect those initiatives to delivering value-added to its customers.

16) EDI is an abbreviation for "electronic data interchange."



Outline of the K-Web system for publishing companies

Picking work (left); WiFi-equipped picking cart (right)

Case 2-4-15 Shoda Seisakusho Co., Ltd.

A company working to bring IoT to the production line to stimulate development in highly polished production methods

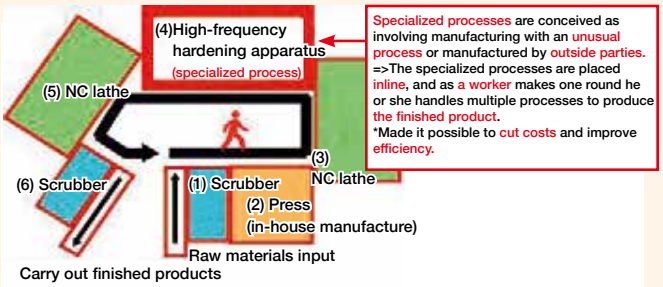
Shoda Seisakusho Co., Ltd. (employees: 194; capital: ¥99 million), located in Kiryu City, Gunma Prefecture, manufactures the steering system and undercarriage parts that are crucial to automobile safety. The company has proactively worked on equipment development in order to refine its production methods, and installs approximately two-thirds of its products itself. It conceived of its own Shoda Production System (SPS) to improve efficiency and save labor by arranging all of the equipment a worker might need within a few steps of their position. The SPS is superb for it improves productivity while keeping down the floor space needed with its carefully thought out segmentation of processes.

For Shoda Seisakusho to maintain its competitiveness as a supplier of automobile parts, it needs to secure human resources, improve productivity, and handle short delivery deadlines. The company is also working to make use of women and elders, and emphasizing creating an environment where even non-expert staff can do jobs easily. Working to reduce burdens for workers on the line by adding sizers and automated dimensional correction features to the numerically controlled processing equipment.

To encourage new strides in the development of the SPS beyond the initiatives already discussed, under Chairman Katsuhiro Shoda's leadership the company began looking into adopting an IoT approach. The company began by installing transmission equipment such as optical and magnetic sensors on the manufacturing lines and carried out a trial run for a remote monitoring system. This system made it possible to get information from each line about whether it was operating, its production performance, per-hour production volume, and the length of time the line was in operation. The data collected by the sensors is saved by receivers and consolidated in the cloud. This made it possible for sales staff to check from wherever they were via smartphone or tablet computer the available capacity on the lines, making it useful for determining quickly whether or not to accept order. Also, the system helped improve the efficiency of administrative work since it cut down on the amount of paper-based managerial tasks to be performed. Having deepened its understanding of how to make use of IoT, the company then appointed one person in-house as a data scientist who would manage data and think about its uses and also set about creating the structures that would bring the IoT approach forward in earnest.

Shoda Seisakusho also has a concept in mind for a future production system that would enable women and seniors to work when they have free time or on the days when they wish to. The system would entail sending messages out to smartphones for each line saying that workers would be wanted for certain periods of time and having recipients book the times they would be working. It would amount to a "self-directed report-for-duty" production system.

"We have obtained remarkable benefits from implementing IoT precisely for creating an environment hospitable to women, seniors, and other workers," says Chairman Shoda. "We want to create a production method by any means that can create such an environment in parallel with cutting costs."



(Distinguishing Features)
* Eliminates interim storage by item-by-item production
* Reduces large amounts of defects through quick discovery of defective products
* Reduce space taken/minimize investments through use of equipment made in-house
* Train engineers by having them handle multiple processes
* Promotes the hiring of women returning to the workforce and elders by making it easier to handle work in process
* Facilitates organizing the production line in response to volume
* Compact line construction easily deployed for advancing into overseas markets

SPS production line example (specialized processes inline)

A computer terminal for handling remote monitoring of the manufacturing line (left) and a transmitter in the plant (right)

Case 2-4-16 Kyoshin Co., Ltd.

A company involved in a joint research project to improve productivity by using AI

Kyoshin Co., Ltd. (employees: 165; capital: ¥30 million), located in Suwa City, Nagano Prefecture, is a company handling cutting work for automobile parts and the like. Kyoshin holds patents related to swaging, a method in which two different types of metal are joined together without the use of screws or soldering by applying high pressure in a mechanical press to cause the metal to deform.[17] The company's swaging work is superb from the perspective of achieving the needed effects with fewer materials and requiring less processing time compared to cutting work.

Kyoshin has an established reputation for its unique technology. However, even the Suwa area is feeling the effects of labor shortages and finding workers continues to be difficult. Dealing with work solely with the existing staff members would unavoidably increase the amount of overtime needed, and even if the company could secure the human resources needed it would have to improve its working environment. In light of these concerns, as one way to improve the situation it set its sights on improving operational efficiency by taking advantage of AI. Kyoshin has been involved since 2017 in a joint research project with the Suwa University of Science (SUS). Together, they have been working to apply AI to breaking strength verifications of parts where swaging has been used.

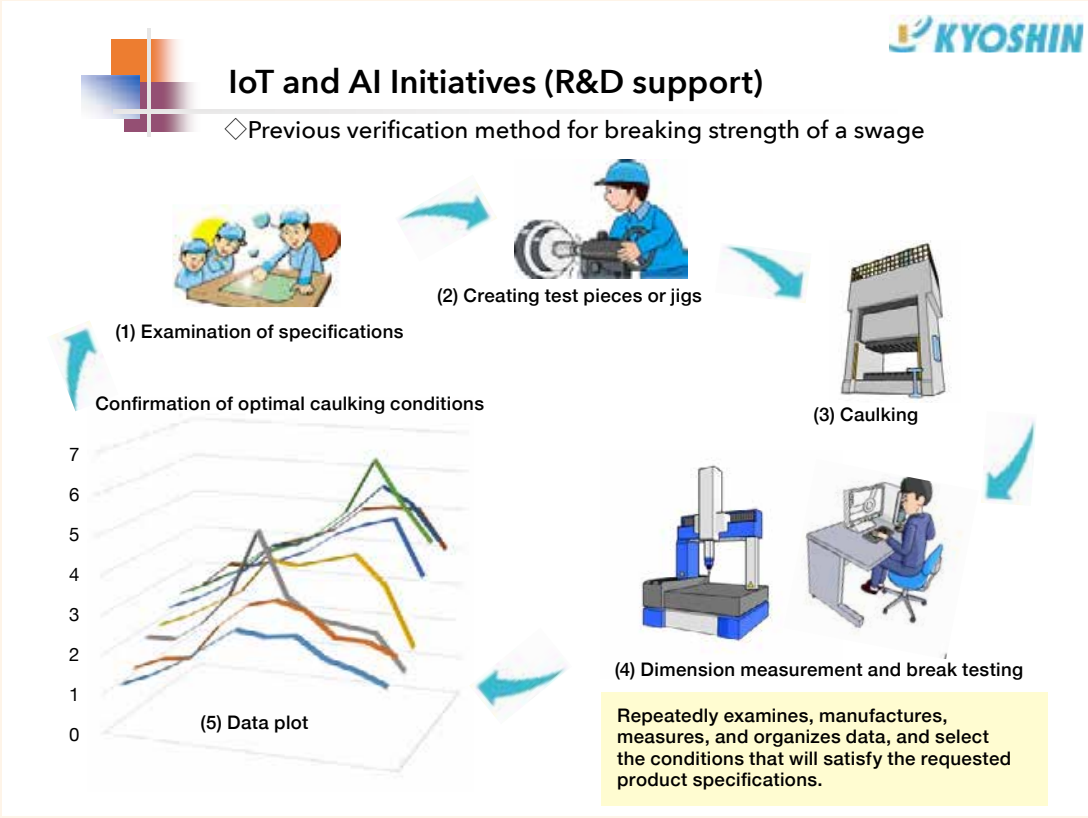
Breaking strength verifications entail carrying out five processes repeatedly: (1) examine specifications, (2) make samples and jigs for test purposes, (3) swage, (4) inspect dimensions and do break testing, and (5) plot the test results. Conventionally, an engineer would rely on their experience and intuition in going by trial and error. Time was required suitable to do enough testing to satisfy the degree of strength sought by the customer, and the loss of materials generated by the trial-and-error approach was a cost that could not be ignored.

In their joint research project, Kyoshin and SUS worked to develop both a simulator and the appropriate AI. The simulator was to offer a mechanism for running processes (2) through (4) by proxy on a computer. The main goal here was to cut down on the work time and material losses. For example, by providing it with the combination of the manufacturing processes and dies used for swaging (referred to below as "processing conditions"[18], the simulator would calculate the theoretical value of the breaking strength for the sample to be produced. At first, they were not able to achieve the strengths as calculated when making samples even as done on the simulator, but after further research and continued refinements the gap between the simulator and reality fell within practical error range.

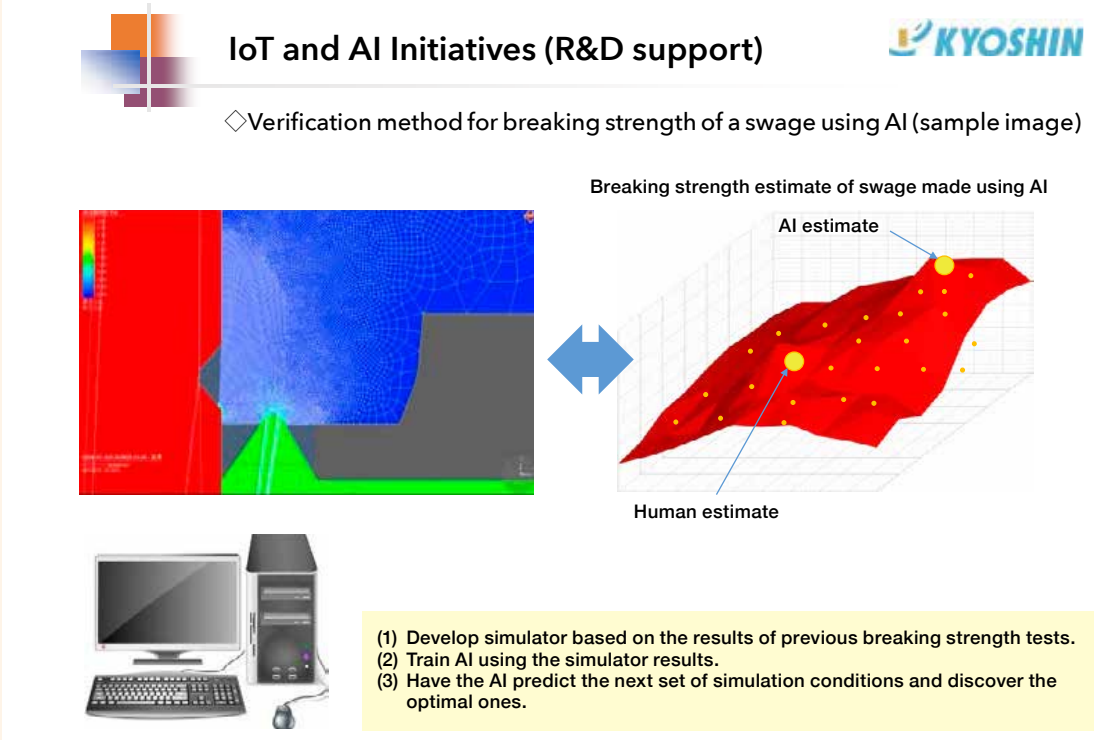
For its part, the AI was to offer a mechanism that would help in the quest for optimal swaging conditions. By providing the AI with information on the breaking strength calculated in the simulator, the AI would suggest the conditions that should next be verified through the simulator. By repeatedly verifying the AI's proposals on the simulator and then feeding those results back to the AI, they would ultimately come up with multiple proposals for processing conditions for achieving the desired strength. Once a combination of conditions had been found that might achieve the desired strength, a human would finish the process. However, the AI would handle the step leading up proposing conditions that could achieve a higher strength. The researchers realized that the AI could search for and recommend favorable processing conditions that it would be difficult for humans to find.

Since this use of AI came about through a joint research project with SUS, Kyoshin has yet to verify its cost effectiveness. However, it has also begun to research production plans and predict order receipts. "It will be difficult to study the use of AI when it comes to initiatives that are strongly affected by external factors such as consumer trends," says Kyoshin President Takeshi Gomi. "However, it should be easy to proceed when it comes to initiatives that can be evaluated for internal factors like parts processing. If we can move forward on data coordination with our business partners and manage all of production with AI, it should also improve the productivity of companies in the Suwa region."

17) A detailed explanation is available at the company's website. (http://www.kyoshin-h.com/main/kashime_tec.html)
18) The actual processing conditions are not limited to just the manufacturing process and dies. Simplification based on improving convenience of explanation.



Original method of developing caulking



Development of caulking method using AI

Case 2-4-17 Densyukan Corporation

A company that introduced interactive digital resources using AI to cram schools, improving efficiency in the classroom and changing how instructors use their time

Densyukan Corporation (employees: 47; capital: ¥3 million), located in Tottori City, Tottori Prefecture, is a company that operates private tutoring schools for students in grades 1 through 12 around Tottori Prefecture and mainly in the cities of Tottori, Kurayoshi, and Yonago. In December 2017, the company introduced its interactive digital teaching tool "SuRaLa" to its Tottori Higashimachi classroom. Even though the system has been use for only a relatively short time, it has been getting a good response for productivity improvements and the learning effect it is having on students.

SuRaLa was developed by SuRaLa Net Co., Ltd. (Chiyoda City, Tokyo). It is an interactive digital teaching tool that allows students to study independently over the internet. It is structured so that each unit takes 10 to 15 minutes to cover, with the difficulty level gradually increasing. Students find the learning content easy to understand. It features an animated character who represents the teacher and appears everywhere to ask questions to check the degree of comprehension, and the student moves along as they respond to them. This allows the student to engage with it without getting bored. Furthermore, the software includes features that employ AI. The AI analyzes weak points based on the pattern of each student's responses, selects the optimal problems, and poses questions. The fact that it uses a natural interaction platform to engage in conversations that stimulate the desire to learn is a major feature. The costs of adopting the software include a monthly service fee of ¥30,000 and ID subscription fees (¥1,500 per ID for each student using the system). It is comparatively reasonable in light of the fact that there are no start-up fees or follow-up costs, making it something easily adopted by small-to-mid size cram schools and private home tutors.

A class in session at the Densyukan Tottori Higashimachi classroom

A student learning with SuRaLa

An instructor monitoring student progress with SuRaLa

SuRaLa can be used by students to prepare for or review lessons. In the classroom, it can be used to teach applied problems premised by such preparation. The manager of the Tottori Higashimachi classroom says that the number of students who have prepared for class has increased since SuRaLa was adopted. Prior to adoption, the manager explained, there were gaps in comprehension levels between those students who had prepared for class and those who did not. When the instructor geared the class to those students with higher comprehension, the students who did not understand could not catch up. Conversely, when the class was geared to students with low levels of comprehension, the students who did understand would get bored. This problem went away after SuRaLa was introduced and everything could be handled from the bottom up.

SuRaLa also comes with small tests for review purposes, so this meant it cut back on the time and effort the instructors would have to spend on preparing such things themselves. Not only did this make life easier for the instructors, it also meant they could spend more time on helping individual students and fleshing out those preparations. It allowed them to improve the quality of the company's service. "The way that instructors used their time changed," says the aforementioned manager.

Compared to conventional tablet computer-based teaching materials, SuRaLa made it possible to deal with each student in ways to suited to that individual thanks to its use of AI. Another big difference with the ICT-based teaching materials that had been used previously, the manager says, is that since SuRaLa is cloud-based, instructors are able to check on the progress students are making when studying at home as they do so and choose appropriate moments to offer comments like "Good to see you working so hard at home" and "I can clearly see you're making an effort" and other such words of encouragement.

Case 2-4-18 Welks Co., Ltd.

A company that has lifted sales by making it possible to concentrate on core businesses through the adoption of automation tools

Welks Co., Ltd. (employees: 262; capital: ¥12 million), located in Taito City, Tokyo, is an employment agency for childcare workers and certified nutritionists. Welks has the biggest market share among employment agencies for childcare workers, with approximately one-fifth of everyone in Japan in-service in the field registered with Welks.

The company has career advisors who ask the childcare workers registered with the service about their desired working locations and salary conditions. If the company has information about a job vacancy that matches their desires, it will introduce them to the nursery school or kindergarten looking to fill that position. If there are no vacancy announcements, the company will sort out those facilities that match the job seeker's wishes and fax information about that person without actually identifying them to them. The company then sets up interviews after any relevant responses from those facilities. Introducing job seekers to facilities is the core of Welks' business. Dealing with the sending of faxes is of crucial importance to it.

The work of sorting out those facilities that satisfy a job seekers' desired conditions is handled using spreadsheet software. Several dozen conditions need to be established to do the sorting, and each fax batch that is set takes anywhere from 5 to 15 minutes. This task had been handled by one administrative staffer. However, that person quit because the work was unrewarding due to it being simple and involving large volumes of routine tasks. President Takuya Mitani took over the job, but it created a serious burden as he was sending approximately 1,000 faxes every month and had to spend more than four hours a day both at the office and after going home to deal with it.

Desired working conditions (partial)

It was at this point that the company received a direct mailing from a robotic process automation (RPA) vendor on a product for linking multiple systems together and automating them. Mitani intuited that this could be used to automate the work of sending out faxes and after quickly consulting with the vendor decided to adopt it.

There was no need to provide the developer with a detailed definition of requirements. The RPA system could easily be brought on line than commonplace IT system. All that President Mitani did was to spend one day rewriting the operations manual he had created for employees but now for robots and send it to the system developer. The investment called for was low. The initial adoption costs ran to ¥300,000, and running costs amounted to several tens of thousands of yen per month.

Manual

Adopting RPA meant automating the work of making selections that had required about 10 minutes per case on average. The simple, routine tasks had easily resulted in errors when people handled them owing to their monotonousness and bothersome nature. However, no such errors occurred when using RPA and precision increased. "The biggest thing for me is that I have been able to free up four hours of every day for my work as president and spend it on handling the business," says Mitani. For example, it now allowed Mitani to hold regular meetings with the staff responsible for each group that he had previously put off because he could not find the time for them. After the RPA system was introduced, the company's sales increased by 2.5 times. Explains Mitani, "I can't say that all of this is a result of using RPA, but at a time when it's getting harder to find workers we would not have been able to expand our business by this much if we had not had been able to automate tasks using this RPA system."

RPA is simple, but it can easily be effective for those operations that call for an enormous volume of work. For Welks, adopting an RPA system to handle the work of sending faxes was just the start. They since expanded its use to cover the work of making corrections to attendance data and dealing with the erasure of personal information. Mitani has ideas about putting it to use in concert with the company's sales support and customer management system as well as its accounting system.

Section 5 Summary

In this chapter, we considered the theme of increasing labor productivity through the use of IT.

In Section 1, we looked at the status of use of IT among Japanese SMEs and the issues associated with IT use, and provided some background to our focus on the back office functions financial affairs/accounting and attendance management. We found that among SMEs, the smaller the scale of the company, the less progress had been made in the introduction of IT, whether considered from the perspective of the type of tools introduced or the areas of business operations to which they had been introduced. Because all companies, no matter what the industry sector, utilize financial affairs/accounting and attendance management, the introduction of IT beginning with these back office functions can be considered an effective method of promoting the use of IT. The issue of companies being unable to shoulder the financial burden of IT introduction can be effectively addressed through the use of cloud services, which are superior from the perspective of cost; the problem of not understanding the benefits of IT introduction and not being able to evaluate them can be expected to be alleviated by making regular use of an organization or entity able to provide consultations regarding IT.

In Section 2, we focused on the realization of linkage of functions between different areas of business procedure, which is able to increase the benefits of IT introduction. We found that functional linkage that boosts efficiency increases labor productivity, and that greater benefits are realized from the use of cloud services than packaged software for computer installation. The results of a questionnaire survey indicated that a higher proportion of companies that had introduced IT and realized functional linkage between different areas of business procedure reported increased labor productivity in comparison to three years previously than companies that had not. The proportion of companies reporting increased labor productivity was also higher among companies that had realized functional linkage among a greater number of areas. In addition, we found that a higher proportion of companies that had realized linkage of functions between different areas of business procedure used cloud services rather than packaged software for computer installation.

In Section 3, we focused on the back office functions financial affairs/accounting and attendance management, and we verified the labor-saving benefits of the use of cloud services, in addition to the benefits of linkage between cloud accounting and Internet banking. Companies that had introduced the use of cloud services to their accounting procedures and attendance management procedures had reduced the number of person days required for the monthly closing of their accounts by an average of 26%. In addition, when we compared packaged accounting software for computer installation with cloud accounting software, we found that companies that had introduced cloud accounting software had a higher rate of linkage between in-house systems and Internet banking, and a higher rate of introduction of management accounting initiatives (profit management, cost management, etc. for management decision-making).

In Section 4, we looked at inter-company data cooperation as a form of IT use that increases added value, in addition to the status of use of advanced IT as a future issue. While SMEs have not advanced their efforts towards the realization of “offensive IT” that increases added value to the same extent as large companies, companies that are engaging in inter-company cooperation towards the realization of “offensive IT” showed higher average sales figures per employee than companies that are not. Only approximately 10% of surveyed SMEs were making use of at least one of the advanced IT tools AI, big data, the IoT and RPA, but the ratio of these companies reporting that their sales figures and current income were increasing was higher than companies that were not yet doing so, and this was also true in the case of increases in labor productivity against the situation three years before.

The use of IT is able to improve both the amount of labor input, the denominator of labor productivity, and added value, its numerator, making it possible to expect increases in labor productivity through both avenues.

Chapter 5

Improvements in labor productivity due to capital investment

Chapter 5 looks at the situation regarding capital investment by SMEs and the improvements in productivity that result from capital investment. It then analyzes both the situation and the improvements using a range of statistical surveys as well as the *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (below, "*Questionnaire Survey*").

Section 1 Current capital investment among SMEs

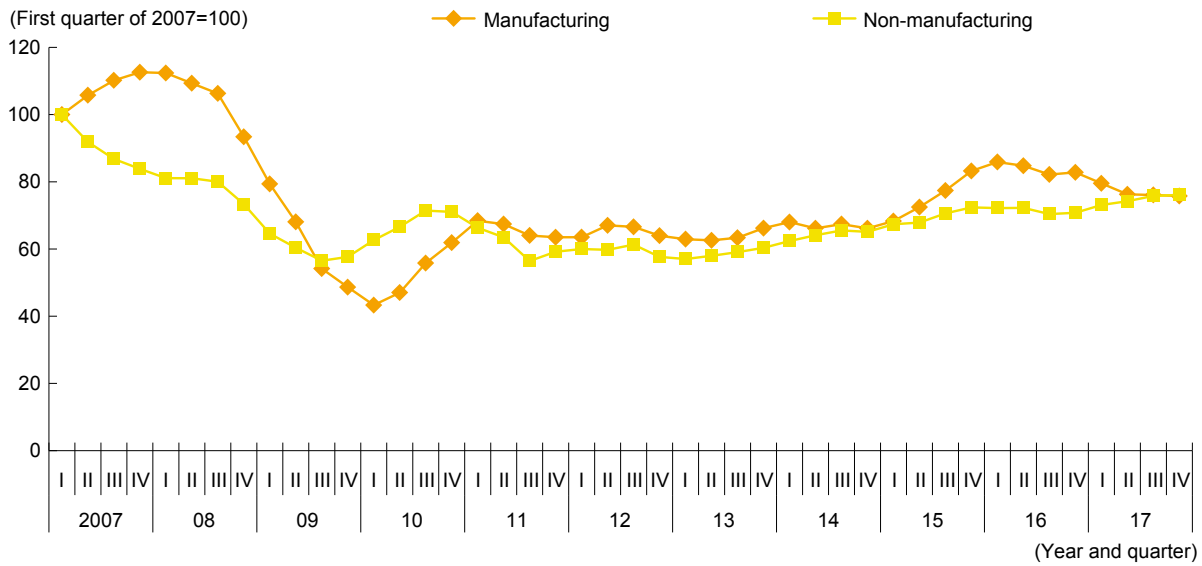
As discussed in Part I, Chapter 1, Section 2, there is a slight rising trend in capital investment by Japan's SMEs. In Section 1, we look in more detail at the current situation regarding capital investment.

1. Capital investment among SMEs

(1) Capital investment by industry type

If we begin by looking at capital investment by SMEs according to industry type, we see that apart from a brief lull in manufacturing industries in recent years, the overall trend is for a gradual increase in both manufacturing and non-manufacturing industries (Fig. 2-5-1). However, levels have not returned to those prior to the Lehman crisis in either sector.

Fig. 2-5-1 SME capital investment by industry type

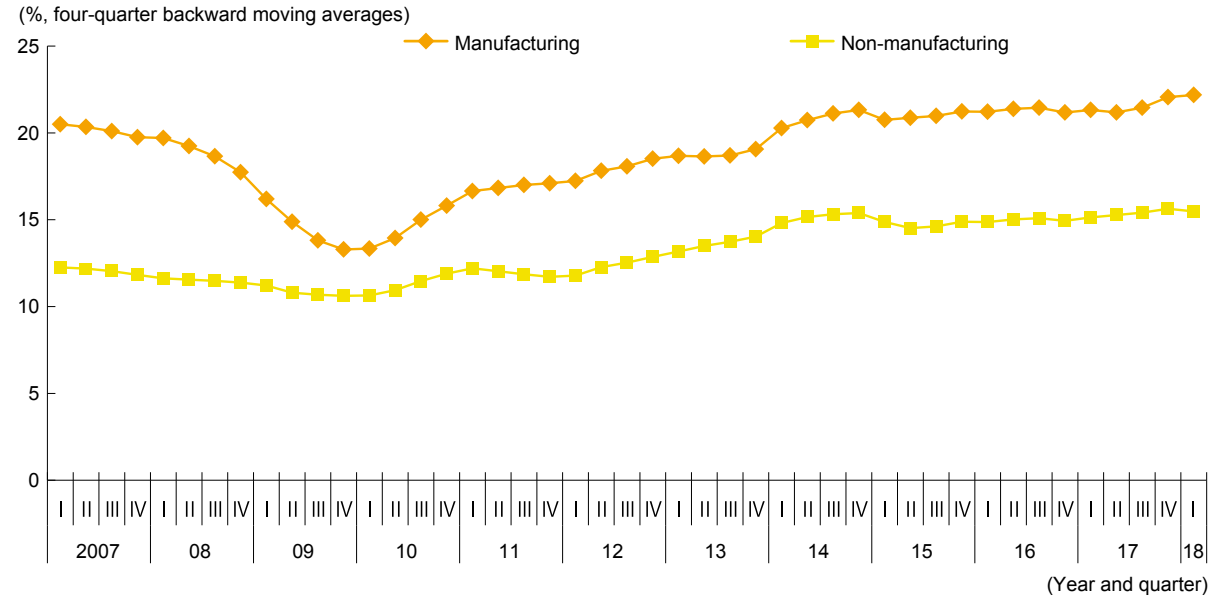


Source: MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly*.
Notes: 1. SMEs here refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.
2. Values shown are indexed 4-quarter backward-moving averages for unadjusted values.

(2) Rates of capital investment by industry type

If we look at the rates of actual capital investment, there is a gradual rise in both manufacturing and non-manufacturing from 2010 onwards (Fig. 2-5-2). We also note that investment has risen above pre-Lehman crisis levels in recent years, indicating more widespread capital investment by SMEs.

Fig. 2-5-2 Rates of SME capital investment by industry type

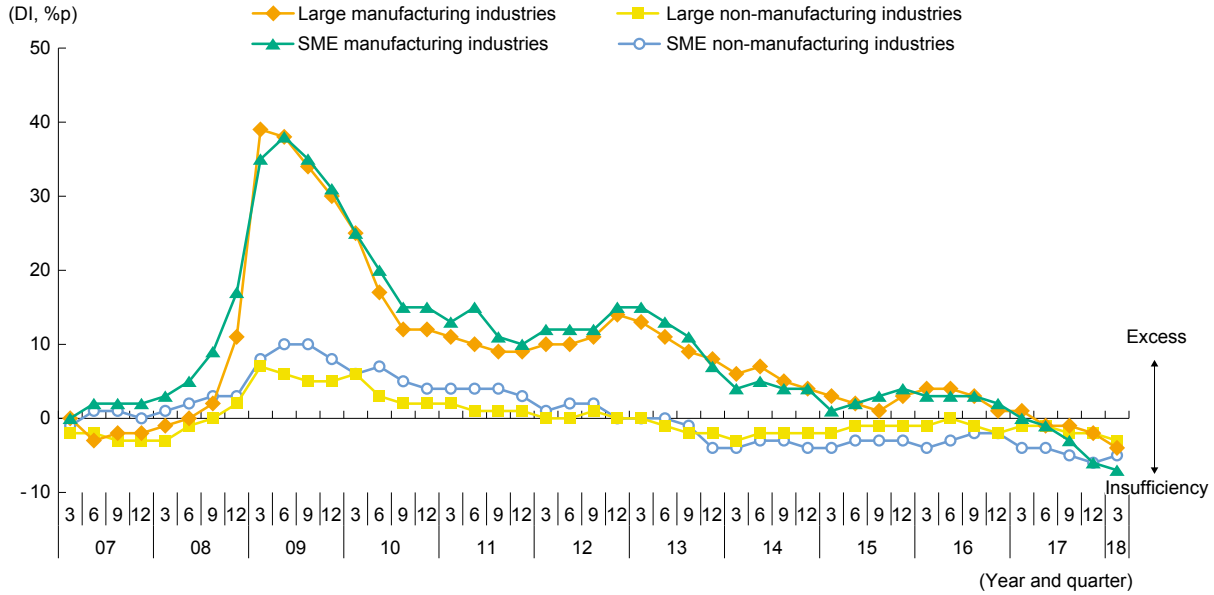


Source: SME Agency and SMRJ, *Survey on SME Business Conditions*.

(3) Insufficiency and surplus in capital investment

Next, in order to ascertain people's impressions that equipment is lacking, we look at movements in the production capacity DI for production and sales by both enterprise size and industry type. In the manufacturing industries, the impression among both large enterprises and SMEs that there is an equipment surplus gradually faded away from its peak in 2009, and in 2017 transitioned to a situation where the perception is more of an insufficiency (Fig. 2-5-3). In the non-manufacturing industries, there has been an ongoing impression more of insufficiency in almost every period since the first quarter of 2013. So we can see that in 2017, in both the manufacturing and non-manufacturing sectors, there is a growing sense that equipment is generally lacking.

Fig. 2-5-3 Production capacity DI for production and sales by enterprise size and industry type



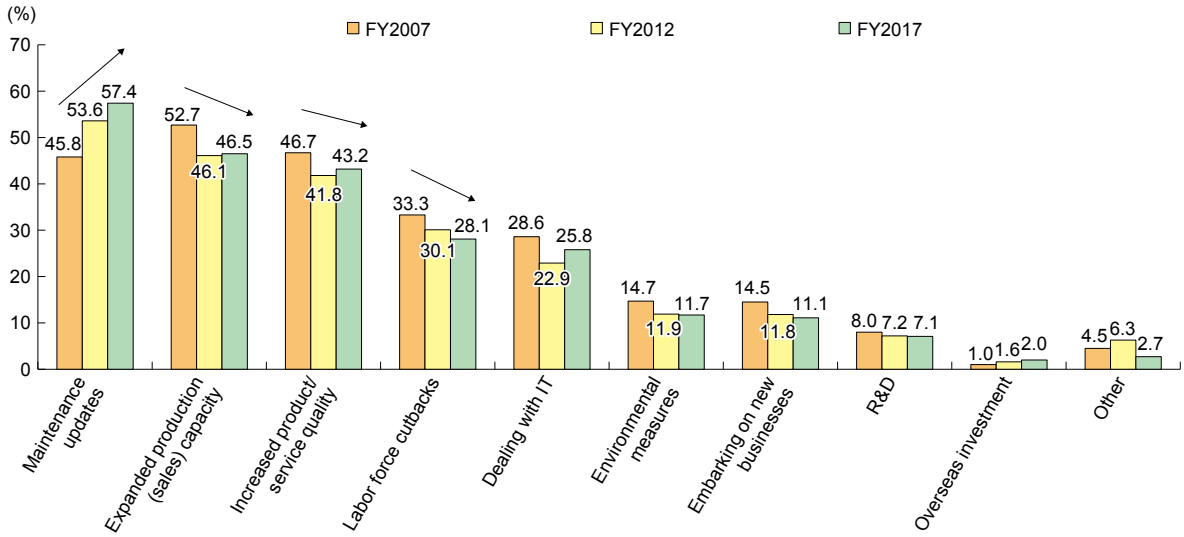
Source: BOJ, *Short-Term Economic Survey of Enterprises in Japan* (BOJ Tankan).
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥20 million or more and less than ¥100 million.

2. Investment trends by investment goal

(1) Capital investment stance by investment goal

While there has been a trend towards a gradual increase in capital investment recently, this section looks at that trend by investment goal to identify the specific goals for which investment has increased. Below, we use the *Business Outlook Survey* conducted by the Cabinet Office and Ministry of Finance (MOF) to study the SME capital investment stance by investment goal over the past 10 years (Fig. 2-5-4).

Fig. 2-5-4 Capital investment stance by investment goal



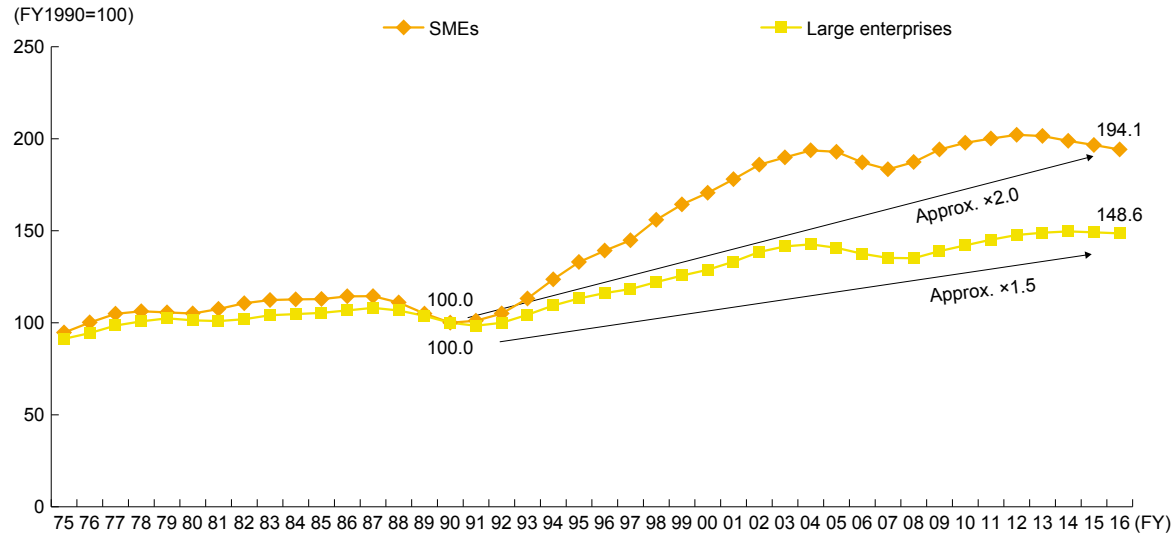
Source: Cabinet Office & MOF, *Business Outlook Survey*.
Notes: 1. Data collected on the capital investment stance in each fiscal year is for the three most highly rated items.
2. Total does not always equal 100% as multiple responses were possible.
3. SMEs here refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

Looking first at the most recent year (FY2017), we can see that the highest proportion of enterprises responded "Maintenance updates", and that the proportion of enterprises who gave that response has increased over the 10 year period. As we will discuss later, this probably arises out of the continued rising trend in the age of SME equipment. Conversely, we also see a declining trend in the last 10 years in the proportions of enterprises who give the "Expanded production (sales) capacity" or "Increased product/service quality" response, both of which are likely to help increase added value, and those who give the "Labor force cutbacks" response, which would assist in streamlining labor inputs.

(2) Equipment age

Next, we look at trends in equipment age as shown by the number of years elapsed since the equipment was first installed. If we assign a value of 100 to the level of equipment age in 1990, which was almost exactly the same for both SMEs and large enterprises, and then look at the trends, we see that the equipment age index for large enterprises in fiscal 2016 is roughly 1.5 times the 1990 level at 148.6. However, the equipment age index for SMEs had risen to 194.1 by 2016, almost double the 1990 level, showing that the aging of equipment among SMEs was more advanced than in large enterprises (Fig. 2-5-5). As shown previously, this more advanced aging most likely arises from the higher proportion of enterprises where the investment goal in the last 10 years has been maintenance updates.

Fig. 2-5-5 Equipment aging by enterprise size



Sources: Prepared using MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly* and based on Shoko Research Institute, *SME Competitiveness and Capital Investment*.
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

Section 2 Factors behind the weakness in capital investment

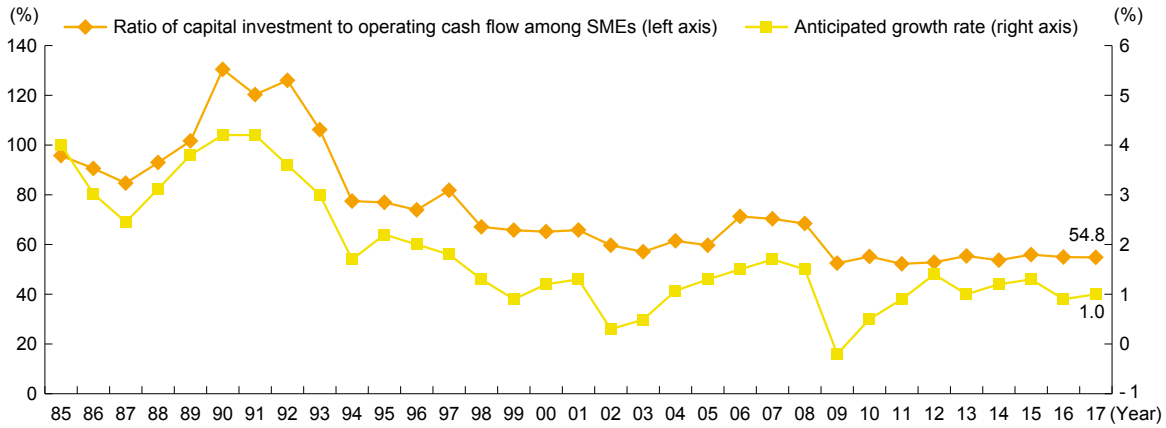
As discussed in Section 1, there is only a gradual rising trend in capital investment by SMEs. But at the same time, the broader environment around investment has improved markedly, as evidenced by factors such as the more favorable funding procurement situation and the historically high levels of ordinary profit among SMEs revealed in Part I, Chapter 1, Section 2. It could be argued that, given such favorable conditions, capital investment is weaker than it should be. In this section, we analyze the factors that are weakening capital investment by SMEs.

1. Correlation between the business outlook and capital investment

(1) Anticipated growth rates and capital investment

The prospects for future growth in one's own business are a key factor behind the decision by any SME to undertake capital investment, but the business outlook for future growth in the industry as a whole (the anticipated growth rate) is also likely to impact on the decision. Accordingly, we look here at the correlation between anticipated growth rates and capital investment. Fig. 2-5-6 shows the ratio of capital investment to operating cash flow and the anticipated growth rates among SMEs. The figure shows that the ratio of capital investment to operating cash flow, which generally indicates the level of positivity towards investment, is closely tied to anticipated growth rates. In the years since the post-1992 decline, anticipated growth rates have largely flatlined, suggesting that SMEs have seen little prospect of business growth in the future outlook and that this has been one factor drawing strength away from capital investment.

Fig. 2-5-6 Ratio of capital investment to operating cash flow and anticipated growth rates among SMEs



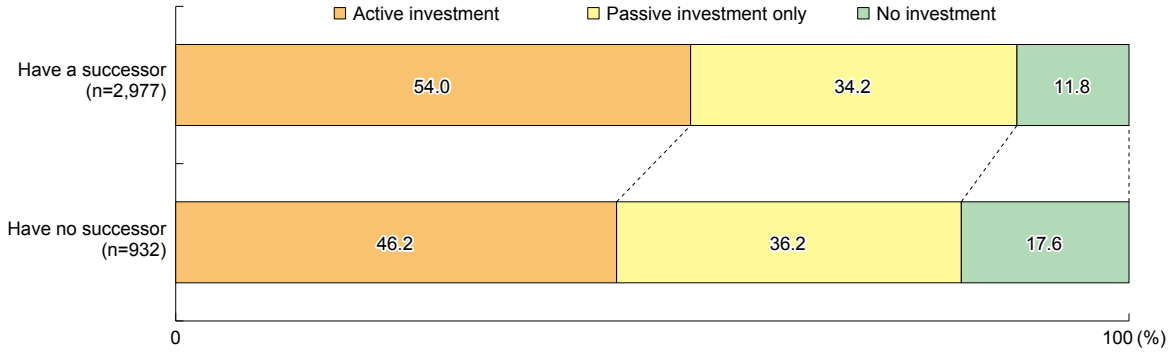
Sources: Cabinet Office, *Annual Survey of Corporate Behavior*; MOF, *Financial Statements Statistics of Corporations by Industry, Quarterly*.

Notes:
1. Because the Cabinet Office *Annual Survey of Corporate Behavior* is conducted in January each year, the values show here are for the corresponding year.
2. The anticipated growth rate refers to the prospective industry demand growth rate in real terms for the upcoming 3 years.
3. Propensity to invest = Capital investment/cashflow
4. Cashflow = Ordinary profit × 0.5 + depreciation
5. To eliminate seasonality, propensity to invest is calculated based on the corresponding annual totals for both capital investment and cashflow.
6. SMEs here refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.

(2) Capital investment and the presence of successors

The existence of a successor is likely to be an important factor in anticipating the future of a business. In order to examine the relationship between capital investment and the existence of a successor, we used questionnaire survey results to look at actual capital investment according to the presence or absence of a successor. This showed that enterprises where the successor has been decided tend to undertake capital investment more actively than those enterprises with no definite successor (Fig. 2-5-7).

Fig. 2-5-7 Capital investment in the last 3 years (by successor presence/absence)



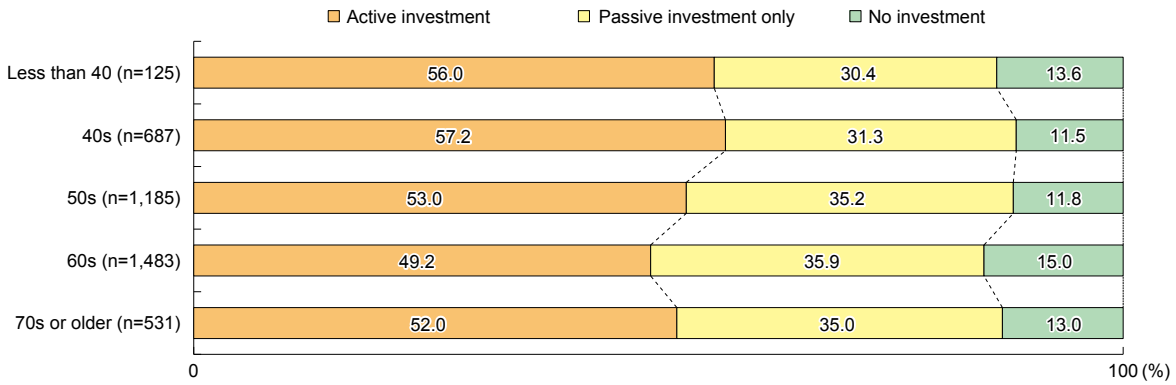
Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes:
1. Defined as "Active investment" where there is active investment in at least one of three investment types comprised of "New/additional production investment", "Labor saving investment" and "Replacement investment" (maintenance, repairs, etc.), defined as "Passive investment only" where there is passive investment in at least one of the three investment types, and defined as "No investment" where there is no investment in any of the three investment types.
2. Here, active investment refers to investment amounts that are relatively high compared with depreciation costs and past investment.
3. Here, passive investment refers to investment amounts that are relatively low compared with depreciation costs and past investment.

(3) Capital investment and manager age groups

When we look at actual capital investment according to the age of the relevant managerial staff, we observe a tendency for enterprises with younger managers to invest more actively (Fig. 2-5-8).

Fig. 2-5-8 Capital investment in the last 3 years (by manager age group)



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes:
1. Defined as "Active investment" where there is active investment in at least one of three investment types comprised of "New/additional production investment", "Labor saving investment" and "Replacement investment" (maintenance, repairs, etc.), defined as "Passive investment only" where there is passive investment in at least one of the three investment types, and defined as "No investment" where there is no investment in any of the three investment types.
2. Here, active investment refers to investment amounts that are relatively high compared with depreciation costs and past investment.
3. Here, passive investment refers to investment amounts that are relatively low compared with depreciation costs and past investment.

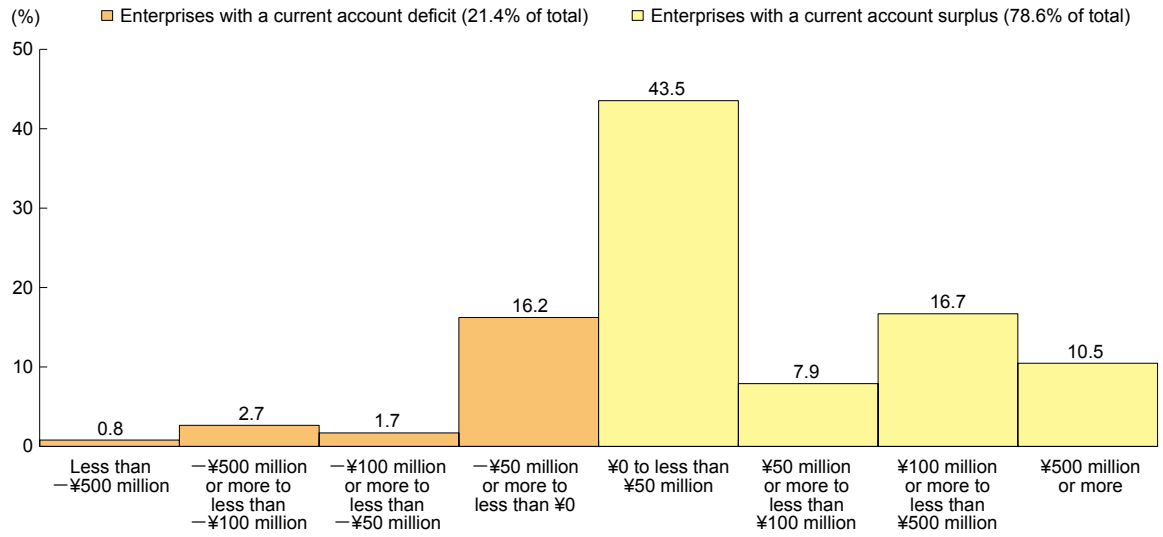
As we have seen above, the absence of a successor generates a level of anxiety over the continuity of the business, which may have the effect of suppressing capital investment. Conversely, a smooth business succession revitalizes the management and can be expected to put the business back on an active investment footing.

2. Correlation between capital investment and profit

(1) Variability in ordinary profit

Next, we look at the correlation between capital investment and profit. As we saw in Fig. 1-1-9, ordinary profits for Japanese SMEs have climbed to record high levels. However, if we look at the variability in profit levels among individual SMEs, it emerges that around 21% of SMEs are running a current account deficit (Fig. 2-5-9).

Fig. 2-5-9 Distribution of ordinary profit among SMEs

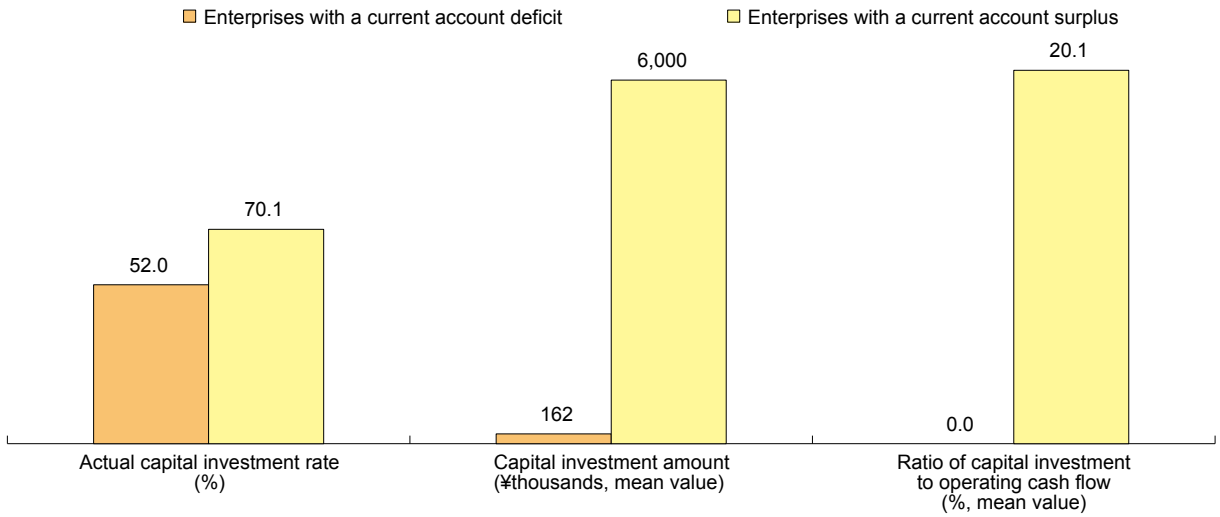


Source: Recompiled from MOF, *2016 Financial Statements Statistics of Corporations by Industry, Annually*.

(2) Capital investment trends among enterprises with a current account deficit

If we then examine the capital investment trends for enterprises that are running a current account deficit, we can see that enterprises in deficit have lower rates of actual capital investment than those in surplus, as well as lower amounts invested in capital and lower ratios of capital investment to operating cash flow (Fig. 2-5-10).

Fig. 2-5-10 Capital investment trends among enterprises with a current account deficit



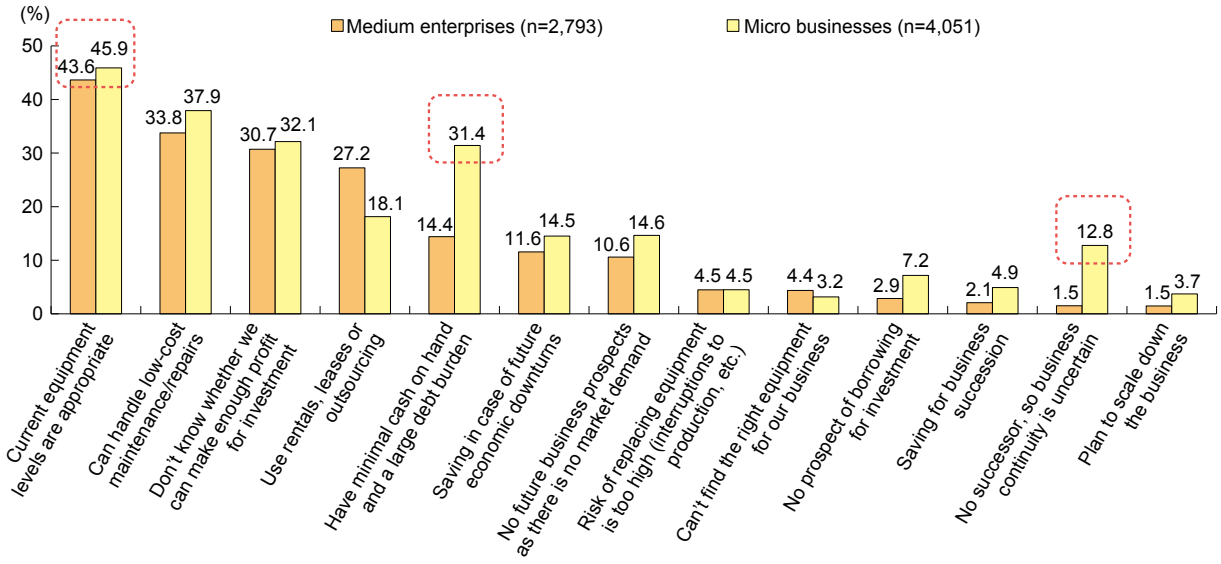
Source: Recompiled from MOF, *2016 Financial Statements Statistics of Corporations by Industry, Annually*.
Notes: 1. Taking enterprises with an ordinary profit for the period of ¥0 or more as enterprises in surplus and those with an ordinary profit for the period of less than ¥0 as enterprises in deficit.
2. Taking enterprises with capital investment for the period of more than ¥0 as capital investment enterprises.

While overall profit levels for SMEs are good, some SMEs have a current account deficit and it seems likely that some of those enterprises may be unable to engage in sufficient capital investment due to their financial limitations.

3. Reasons underlying suppressed capital investment

Finally, we will use the questionnaire survey to examine the reasons why SMEs are limiting their capital investment, distinguishing between medium enterprises and micro businesses (Fig. 2-5-11). The most popular response from both medium enterprises and micro businesses was "Current equipment levels are appropriate." When we compare the responses from medium enterprises and micro businesses, the proportions of responses from micro businesses were noticeably higher for "Have minimal cash on hand and a large debt burden" and "No successor, so business continuity is uncertain."

Fig. 2-5-11 Reasons underlying suppressed capital investment



Sources: Medium enterprises -- Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Micro businesses -- Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey of Business Activities at Micro Businesses, etc*. (December 2017).

Notes:
1. Total does not always equal 100% as multiple responses were possible.
2. Totals for the suppression of capital investment are for respondents who selected "Withholding investment".
3. No "Other" responses are presented here.

Section 3 Improvements productivity due to capital investment

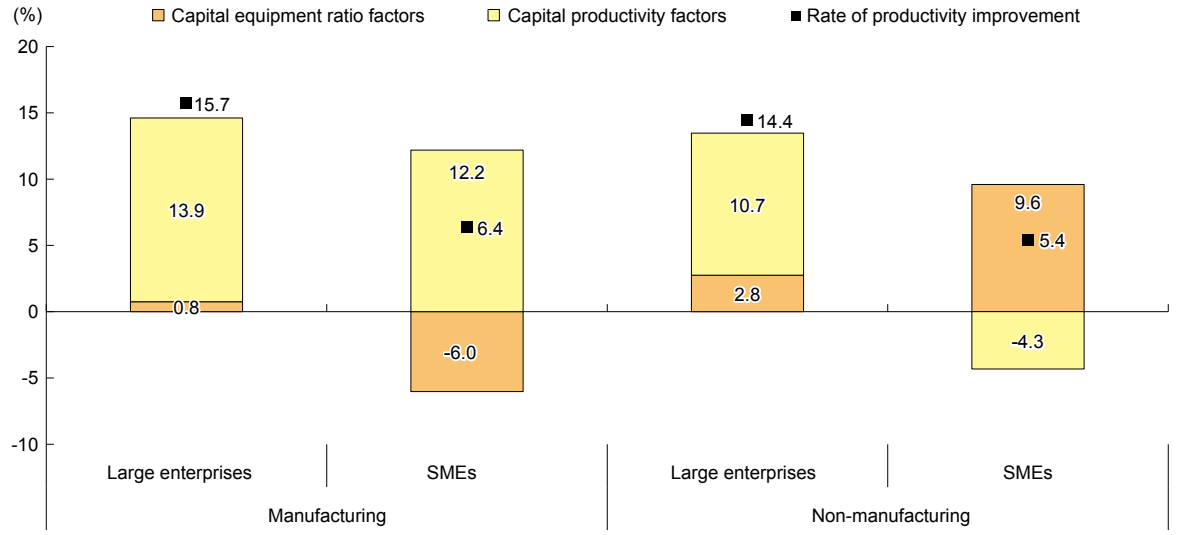
In Section 2, we looked at the factors undermining the strength of capital investment recovery, and in this section we will analyze the effects that capital investment has on productivity in SMEs.

1. Capital investment and labor productivity

(1) Factors underlying improved labor productivity

To first ascertain the correlation between equipment and labor productivity at the macro level, we looked at the changes in labor productivity over the last 5 years (FY2012-2016) and identified the capital equipment ratio factors[1] and capital productivity factors[2),3)]. This revealed that, in both manufacturing and non-manufacturing industries, the contribution made by capital productivity to SMEs is less than for large enterprises and that the contribution of capital productivity is negative, particularly in medium and small non-manufacturing firms. The analysis also shows that SMEs lag behind large enterprises in the efficient use of equipment (Fig. 2-5-12). In the manufacturing industries, the contribution of the capital equipment ratio factors is also negative and we can see that they are slower than large enterprises to adopt mechanization.

Fig. 2-5-12 Analysis of factors behind labor productivity improvement rates (FY2012-2016)



Source: Prepared based on MOF, *Financial Statements Statistics of Corporations by Industry, Annually.*
Notes: 1. Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and SMEs refer to enterprises with a capital of ¥10 million or more and less than ¥100 million.
2. Because we calculated the rate of change and logarithmic differences for each causal factor and used those as the rate of contribution, the results do not match the overall rate of productivity improvement.

Based on the above, we can conclude that SMEs need to make progress in installing equipment that will help to boost productivity as well as in the efficient use of that equipment. Accordingly, we will next use the questionnaire survey results to look at variations in productivity improvement by capital investment type.

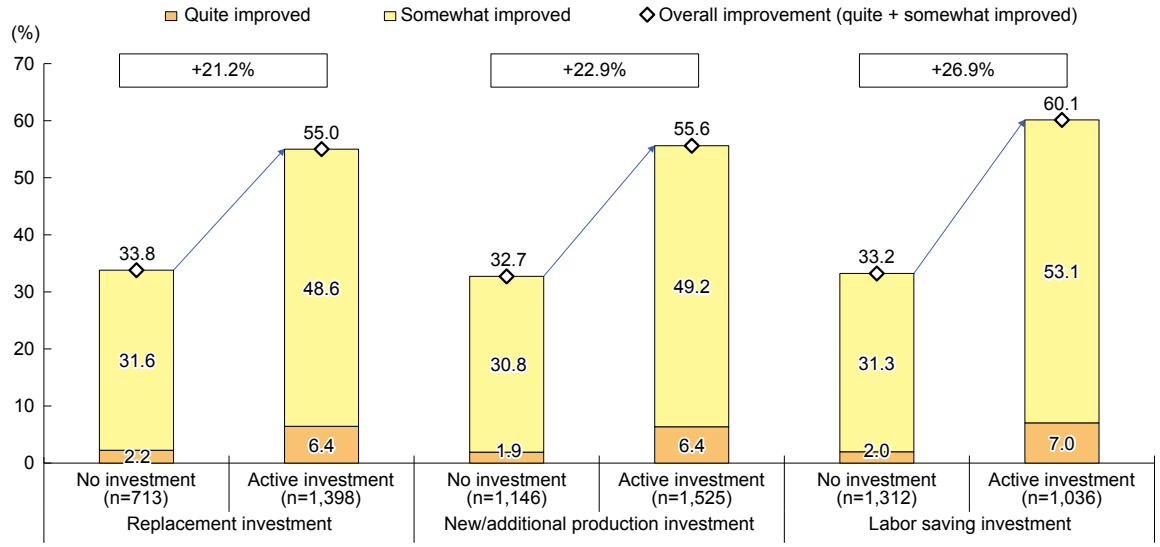
2) Labor productivity improvement outcomes by capital investment goal

Fig. 2-5-13 uses the questionnaire survey to show the proportions of enterprises that have improved their labor productivity in the last 3 years according to whether they have engaged in capital investment during that time. Whichever capital investment goal we look at, it is clear that enterprises which undertook active investment experienced improved labor productivity. If we compare

1) Capital equipment ratio is found by dividing capital stock (tangible fixed assets) by number of workers. It represents the possession of equipment, etc., per worker. Generally, the higher this indicator, the more mechanized the production site.
2) Capital productivity is found by dividing added value by capital stock (tangible fixed assets). It represents the added value generated per unit of stock. Generally, the higher this indicator, the more efficiently the business is using its production equipment.
3) Because labor productivity = capital equipment ratio × capital productivity, the rate of increase in labor productivity can be interpreted as approximately equal to the rate of increase in the labor equipment ratio + the rate of increase in capital productivity.

the size of the rise in the proportion of enterprises with productivity improvements due to active investment according to the capital investment goal, the most effective type of investment is labor saving investment.

Fig. 2-5-13 Variations in labor productivity and actual capital investment

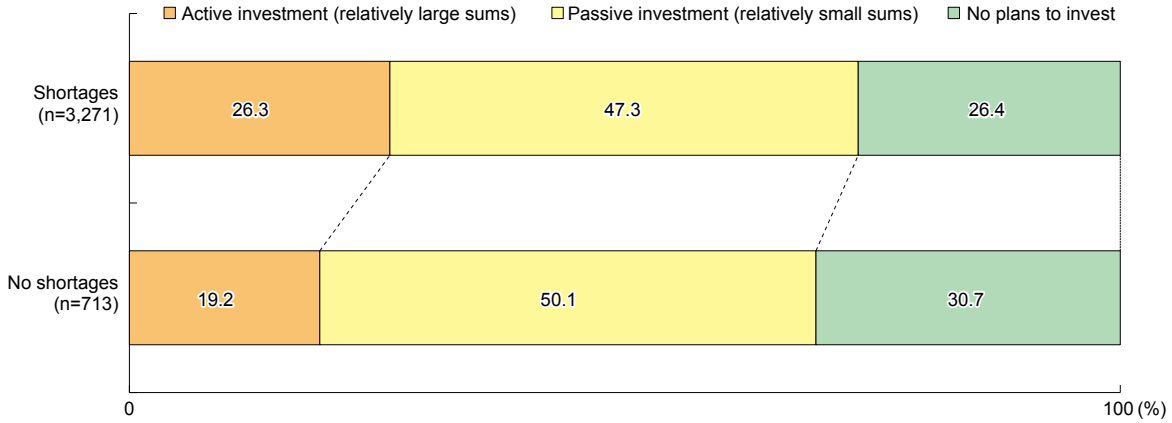


Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Here, active investment refers to investment of amounts that are relatively high compared with depreciation costs and past investment.

(3) Labor shortages and labor saving investment intentions

One predictable response to growing labor shortages is to improve the efficiency of labor input through labor saving investment. Indeed, when we look at respondents' actual impressions of a labor shortage and their intentions to engage in labor saving investment in the future, we see that the more strongly enterprises feel that there are labor shortages, the stronger their intentions to actively engage in future labor saving investment (Fig. 2-5-14).

Fig. 2-5-14 Impressions of labor shortages and labor saving investment in the next 3 years



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

Notes:
1. "Shortages" includes enterprises that responded "Quite insufficient" or "Somewhat insufficient."
2. "No shortages" includes enterprises that responded "Just right" or "Excessive."
3. Here, active investment refers to investment amounts that are relatively high compared with depreciation costs and past investment.
4. Here, passive investment refers to investment amounts that are relatively low compared with depreciation costs and past investment.

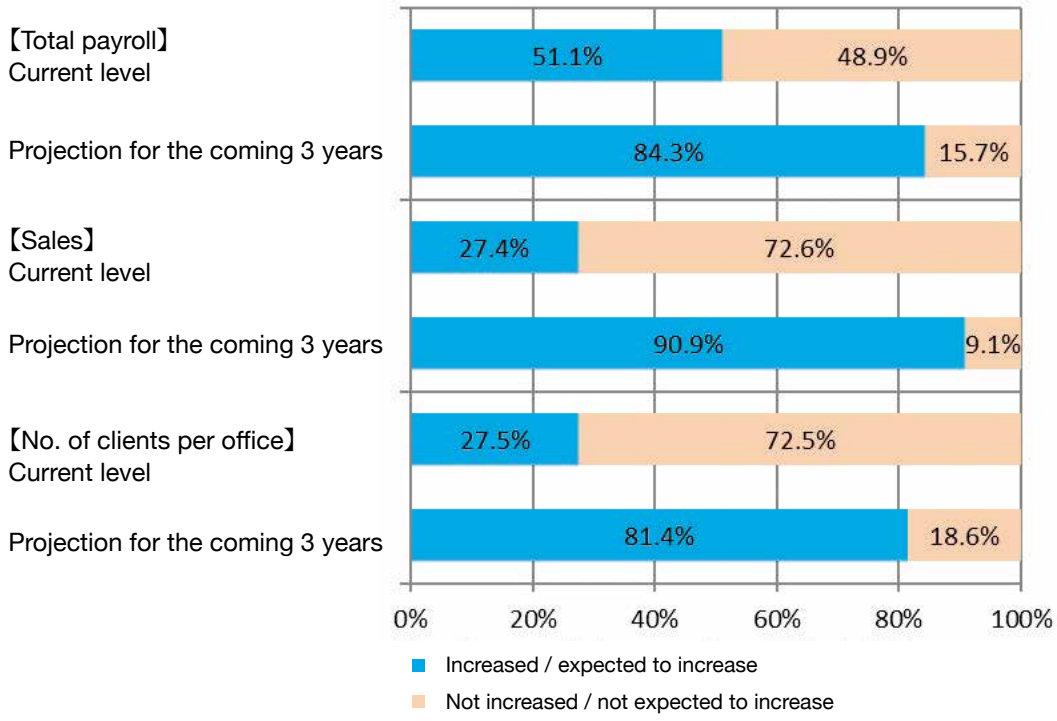
Column 2-5-1 Program to Help Improve Management Capabilities in Manufacturing, Commerce and Services

A key issue to be addressed in building an economy with strong foundations is that of improving productivity in the SMEs and micro businesses that are the bedrock of the Japanese economy. To address this issue, partial support is provided for initiatives such as capital investment aimed at improving production processes, developing trial products and developing innovative services that help to boost the productivity of SMEs and micro businesses.

Intended users	SMEs and micro businesses engaged in business that is fully backed by approved support agencies and that meets one or more of the requirements below. (1) Have a plan that will improve service provision processes or create innovative services using methods listed in the "Guidelines for improving productivity in small and medium service providers" and that can achieve annual improvements of 1% in "ordinary profit" and 3% in "added value" in 3-5 years. (2) Have a plan that will improve production processes or develop innovative trial products using the specific core manufacturing technologies under the "SME Technological Advancement Law" and that can achieve annual improvements of 1% in "ordinary profit" and 3% in "added value" in 3-5 years.
Business model	1. Inter-enterprise data use Maximum subsidy: ¥10 million/business* (subsidy rate 2/3) Supports projects in which multiple SMEs and micro businesses mutually share data/information so as to improve productivity and create new added value for the entire cooperative. * Up to 10 businesses in a cooperative. Up to a maximum of ¥2 million x the number of cooperative participants can be distributed within a cooperative. 【Three-company cooperative】 Company A ¥10 million Company B ¥10 million + ¥2 million x 3 = ¥6 million Company C ¥10 million (Can be distributed within the cooperative) 2. Ordinary Maximum subsidy: ¥10 million (subsidy rate 1/2*) Support is provided, such as the capital investment required by SMEs and micro businesses in order to improve production processes and develop innovative services and trial products. * In municipalities where the special rate of tax on fixed assets has been set to zero under the Bill on Special Measures for Productivity Improvement, the subsidy rate is 2/3 for businesses that have secured approval for an advanced equipment installation plan or businesses that have met the set requirements for securing approval for a management improvement plan under the Act for Facilitating New Business Activities of Small and Medium-sized Enterprises. 3. Small Maximum subsidy: ¥5 million (subsidy rate of 2/3 for micro businesses and 1/2 for other businesses) Support is provided in the form of small sums of money to help SMEs and micro businesses improve production processes and develop innovative services and trial products. (Support is also provided to develop trials that do not involve capital investment.) (Applicable to 1-3 inclusive) Where specialists are employed, the subsidy limit is raised by ¥300,000

So far, assistance measures have been delivered through the manufacturing, commerce and services subsidy to over 50,000 SMEs and micro businesses in the supplementary budgets for FY2012-2016. In the supplementary budgets for FY2012-2014, around 44% of the businesses who completed the program were successful in developing their businesses, showing that the program is on track to reach its target of achieving business success for at least half of the recipients 5 years after program completion. In the survey (survey period: August-October 2016; valid responses: Approx. 7,000), more than half the respondents also stated that "Total payroll" had increased immediately after applying the program, while roughly 80% or more expected that "Total payroll", "Sales" and "Clients" would increase in the coming 3 years (Fig. Column 2-5-1).

Fig. Column 2-5-1 (1) Survey of the manufacturing, commerce and services subsidy



Source: Prepared based on National Federation of Small Business Associations, *Report on the Manufacturing Subsidy Outcomes Assessment Survey* (December 2016, Mitsubishi UFJ Research and Consulting Co., Ltd.)

Column 2-5-2 New exceptions to the Fixed Assets Tax

While business conditions for SMEs have been improving, labor productivity has remained static and a widening gap is opening up with large enterprises. Another particular problem is the aging of the equipment owned by SMEs, which is proving to be an impediment to increased productivity.

In order to survive in a difficult business environment, including dealing with an aging population, labor shortages and changing ways of working, enterprises need to replace aging equipment with newer equipment that will lift productivity and dramatically improve the labor productivity of the businesses themselves.

Main points of new exceptions to the Fixed Assets Tax

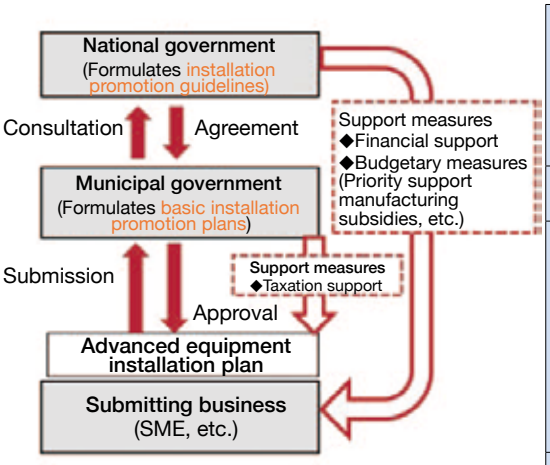
To give a stronger impetus to measures related to improving productivity through capital investment by SMEs, the platform of taxation system reforms for fiscal 2018 includes special exceptions to fixed assets taxation for SMEs with the aim of promoting capital investment.

These exceptions are included in the Bill on Special Measures for Productivity Improvement presented to the 196th regular session of the Diet and are expected to be used for capital investment by SMEs that have obtained approval from their local municipal government. The exceptions apply to the fixed assets tax imposed on depreciable assets under the Local Tax Law. Unlike the fixed asset taxation exceptions in the Act for Facilitating New Business Activities of Small and Medium-sized Enterprises, which has been in effect since fiscal 2016, these exceptions promote ingenuity in municipal governments and bring together industry promotion by municipal governments and national government support initiatives so as to drive improved productivity in SMEs.

In the Bill on Special Measures for Productivity Improvement, the next 3 years is seen as a period of focused investment and support is provided for capital investment by SMEs that have gained the approval of the municipal government during that period. The national government has formulated "installation promotion guidelines" for equipment that will contribute to improving SME productivity. Municipal governments formulate plans to provide assistance to SMEs that highlight local strengths, referred to as "Basic plans to promote installation," and submit those plans to the national government. Once the government has agreed to a plan, the municipality can then accept an "advanced equipment installation plan" drawn up by the SME and approve the plan. An SME that has received approval can have a depreciable asset that was acquired under the "advanced equipment installation plan" nominated as a designated depreciable asset under the Local Tax Law, so that the tax base for fixed assets tax is reduced for 3 years to the proportion specified in the provision, or between zero and one half (Column Fig. 2-5-2 (1)).

Fig. Column 2-5-2 (1) Overview of the Bill on Special Measures for Productivity Improvement and exceptions to fixed assets taxation

<Bill on Special Measures for Productivity Improvement>



Intended recipient*1	SMEs (corporations with a capitalization value of ¥100 million or less, sole proprietorships with 1,000 or fewer employees, etc.) that have received approval for an advanced equipment installation plan (matched to a municipal government plan to increase labor productivity by an annual average of at least 3%) (excluding subsidiaries of large enterprises)
Intended regions	Municipalities*2 that have received agreement for a basic installation promotion plan
Applicable equipment*1	The target for assistance in increasing productivity is a rise of 1% or greater on previous models for the following equipment: Types of depreciable assets (minimum acquisition cost/ sales commencement period) • Machinery (¥1.6 million or more/up to 10 years) • Measuring and inspection tools (¥300,000 or more/up to 5 years) • Appliances/fittings (¥300,000 or more/up to 6 years) • Building-mounted equipment*3 (¥600,000 or more/up to 14 years)
Other requirements	Must be provided directly for use in production or sales activities, etc./Must not be a used asset
Special provisions	Tax base for fixed asset taxation reduced to between 0 and 1/2*4 for 3 years

*1 May vary depending on the municipality
*2 May be a designated region within the municipality
*3 Excludes items that become effective when integrated with the building
*4 Proportion determined by municipal regulations

In line with these exceptions, the national and municipal governments are working together to give impetus to productivity improvements in SMEs through prioritized assistance and budgetary measures such as the manufacturing, commerce and services subsidy (Column Fig. 2-5-2 (2)).

Fig. Column 2-5-2 (2) Subsidies targeted under prioritized assistance

Eligible programs	Overview	Budget size 2018 initial and 2017 supplementary budget
Program to Help Improve Management Capabilities in Manufacturing, Commerce and Services	Support for capital investment for improving production processes, developing trial products and developing innovative services that help to boost productivity among SMEs	¥ 100 billion
Micro business sustainability subsidy	Support for micro businesses in initiatives such as market development and formulating business plans with societies and chambers of commerce and industry	¥ 10 billion
Strategic Core Technology Advancement Program	Support for SMEs engaged in market development, trial product development and R&D in cooperation with universities or public research organizations, etc.	¥ 13 billion (included)
Support program for introducing IT to increase productivity of services, etc.	Support for SMEs installing IT to achieve more efficient back-office administration and improved sales	¥ 50 billion

Case 2-5-1 Koiwai Co., Ltd. (Miyagi Plant)

A company that has addressed a labor shortage and improved productivity by deploying production robots and electric pallet jacks

Koiwai Co., Ltd. (employees: 140; capital: ¥20 million), established in 1973, is a company dealing in non-ferrous metals. While prototyping coupled with research and development are the main activities at the company's headquarters in Odawara City, Kanagawa Prefecture, the company's core mass production business involves metal casting at its Miyagi plant in Ogawara Town in Miyagi Prefecture. This case study explores laborsaving investment efforts made at the company's Miyagi plant.

Metal casting is hard, dangerous work, and the company built its Miyagi plant because it was having difficulties finding workers in the Tokyo metropolitan area. However, market conditions changed as a result of the Great East Japan Earthquake, and the company was unable to acquire workers despite its efforts to find them. In line with its tradition of requiring employees to have experience with all aspects of the casting process, the company had only ever employed full-time male staff. But to make up for its shortage of workers, the company opened up temporary and part-time positions for women in the production process. Women were tasked with finishing, testing, and other casting post-processes, while the more experienced regular employees were made to focus on the casting process, which substantially affects the quality of products. Investments in laborsaving, namely in production robots and electric pallet jacks, facilitated this change in worker roles.

Before robot deployment

After robot deployment

Robots were deployed to pour molten aluminum, extract and carry products, mostly in casting large parts, a dangerous process and one part of the overall process by which the company makes its products. Although the company's main focus was on ensuring the safety of and reducing the workload of experienced laborers, the result was a 2.3x increase in productivity (the work of two laborers was done by one, and production volume increased to 70 units a day from 60). By teaching robots the operations performed by highly-experienced workers, the company achieved an improvement over the roughly 10% defective rate of other lines while also stabilizing quality. Of the roughly ¥100 million total equipment expenditure for a single line, the company spent approximately ¥50 million on the robots (excluding furnaces and including integrator costs). It used a manufacturing subsidy (subsidies for supporting new development of monozukuri (manufacturing), commerce, and service businesses) to deploy the robots. The subsidy covered ¥30 million and the company put up the remaining ¥20 million. Running costs consist of electricity fees and an annual maintenance expenditure of about ¥300,000, which includes manufacturer-recommended maintenance and round-trip travel costs from Shizuoka Prefecture. And as only a short time has passed since deployment, no consumable parts have yet been replaced.

Electric pallet jack

The company has also improved its working environments. One such effort, aimed at making it easier for women to work, involved deploying electric pallet jacks in place of forklifts, which require drivers to have licenses. Women now comprise a majority of the company's part-time and temporary workforce: 24 out of 34 workers. As an upfront cost, the electric pallet jacks were purchased for ¥820,000. Running costs amount to electricity for overnight charging, which is performed about once every three days, and roughly ¥100,000 for yearly maintenance (as recommended by the manufacturer).

Says President Toyomi Koiwai, "we would like also begin using robots for things outside of large parts. Our plant currently operates 24 hours a day (through two and a half shifts), and the deployment of robots in the casting process, our most important process, has helped reduce workload."

Case 2-5-2 Yuai-Jujikai Social Welfare Corporation (Kinuta Home)

An organization that reduced its caregiving workload and improved its appeal by deploying caregiving robots equipped with monitoring sensors and power assist functionality

Kinuta Home (of the Yuai-Jujikai Social Welfare Corporation), located in Tokyo's Setagaya City, has capacity for 64 patients and has a total of 29 caregivers and nurses [4]. The company makes continuous efforts to improve the caregiving services provided to its users based on its principle of "cross-occupational cooperation." This has specialists provide caregiving support to primarily caregivers, who spend more time than anyone else interacting with patients.

There is a very real shortage of workers in the caregiving field, and Kinuta Home is no exception. In addition to reducing the caregiving workload of its staff by streamlining its procedures, it is also focused on building appealing caregiving environments for the sake of hiring future staff. Although many still accuse the caregiving field as lagging behind technologically, the company is making efforts to reduce caregivers' workloads and enhance its appeal by improving the work environment at Kinuta Home through laborsaving investments. As one part of this, the company applied to become a Model Business Supporting the Usage of Caregiving Robots and Assistive Technologies.

Monitoring sensor (infrared model)

Monitoring sensor (load sensing model)

Caregiving robot (power assist functionality)

After becoming a model business and giving much consideration to the technologies it uses, the company deployed two types of caregiving robot: one equipped with monitoring sensors (infrared models and load sensing models) and one with power assist functionality. The monitoring sensors reduce the frequency of caregiver patrols, while the power assist robots alleviate the physical burden on caregivers.

According to a survey of facility staff following robot deployment, 19 of the 22 staff said that the monitoring sensors reduced their workload while six of 21 staff [5] said the same about the power assist robots. Moreover, when comparing the 10 months following monitoring sensor deployment to the 10 months prior to deployment, the number of accidents involving patients falling out of their beds dropped roughly 30%. While there were some staff who were not able to make full use of the power assist robots due to size incompatibilities, they did serve as a reference for how best to help patients move. The company's total capital expenditure was roughly ¥6.16 million (¥5.25 million of which was subsidized by Tokyo), with running costs of ¥40,000 a month in wireless Internet fees.

Kinuta Home is also considering deploying tablets and intercoms. Tablets can use the wireless Internet access that was installed alongside the monitoring sensors to help the facility go paperless. Intercoms differ from telephones in that they allow for hands-free communication without the need to dial a number, and therefore allow for quicker communication between staff.

Says Kinuta Home's Director, Kenta Suzuki, "I see the success of our caregiving robot deployment as owing to a concerted effort among our caregiving and other staff to create a corporate culture committed to providing patients with better caregiving services. Specialists from different fields help each other out and constantly think of new techniques and tools to use while also thinking about the pros and cons of existing techniques and tools and how to use them effectively. When deploying new robots and tools, if things don't go well, people can sometimes feel like going back to the old ways of doing things. This prevents caregiving improvements from being made. Sometimes it's important to think hard about whether existing methods might actually work.

4) Full-time staff equivalent: 25.6 caregiving and 4.8 nursing staff (as of March 1, 2018). 22 of these are caregiving staff working in rotations.
5) The position of one of the 22 caregiving staff precluded the use of power assist technology from the outset.

Case 2-5-3 Kimura Co., Ltd. (Fresh Market Kimura)

A company that makes significant capital investments and automates the preparation of the fish it uses in its prepared meals, while at the same time focusing on its employees' face-to-face sales and customer service

Kimura Co., Ltd. (employees: 1,007; capital: ¥50 million), located in Takamatsu City, Kagawa Prefecture, has 20 "Fresh Market Kimura" supermarkets in Kagawa and Okayama Prefectures that deal in fresh foods and delicatessen items.

The company has made considerable investments in capital and has deployed more food processing machines than almost any other food supermarket in the nation. The company has spent at least ¥500 million on just the food processors currently in operation. It has automated the preparation and primary processing of the fish used in its deli items, and prepares everything at the factory. This has helped address a shortage of staff for fresh fish sales areas and allowed the staff to concentrate on talking with customers and making sales.

Even though operating in an industry where buyers purchase products in bulk, the company's sellers at each store purchase their stock from fishing ports and markets. The company offers an extensive product lineup that includes small fishes from the Seto Inland Sea and other species, and one of its advantages is being able to provide fresh fish affordably. For its fish counters, the company employs staff who can discern quality fish and who are knowledgeable about seafood dishes. These staff even filet fish in store for customers who request it. But it takes time to train these kinds of staff. It has been difficult for the company to find younger workers, and due to expectations that former chefs and other people with relevant experience will become harder to find, the company is worried about personnel shortages in the future. It was not only to save labor in the short term that the company made these investments in automating food preparation and primary processing; the investments have also improved productivity by facilitating the optimal allocation of personnel.

The motivation to automate fish preparation came from local fish markets' trouble with filleting smaller fish, in response to which the company came up with the idea of cutting fish using machines. The company uses many different types of machines to prepare its fish, including those that cut off fish heads, fillet them into two or three pieces, and peel off the skin. The small, medium, and large versions of these machines also differ depending on the size of the fish they process. As other supermarkets are ill-equipped to handle small fish and sell mostly fillets, the company prioritizes processing and providing customers with small fish. This also helps differentiate the company from its competitors.

Fresh fish department akin to a fish market that sells whole fish still in the shipping box

After an investment of ¥1.05 billion, the company launched a facility for processing agricultural and fishery products in March 2018. Located near Takamatsu's central wholesale market and with a total area of around 3,000 m², the company's seafood processing center processes all the fresh fish together into fillets or add seasonings or other things before shipping products to its stores. Because products can be made simply by arranging sashimi in packages or deep frying foods, even employees with little experience can make products at Kimura stores. This leaves experienced employees open to talking with customers and making sales. Deli items processed at the center, frozen foods, and other processed foods are also sold by outside vendors. The company's president, Hiroo Kimura, says that he wants to develop production and wholesale trade as another pillar of the company's business.

Outside the company's headquarters and flagship supermarket

Case 2-5-4 Ichiyamamart Corporation

Growth company that uses semi-self checkout kiosks and tablet devices to alleviate staff shortages

Ichiyamamart Corporation (regular employees: 220, part-time employees: 1,000, capital: ¥49.95 million), located in Chuo City, Yamanashi Prefecture, operates a total of 14 supermarkets in Yamanashi and Nagano Prefectures. The company differentiates itself by not using chemical seasonings and through its high-quality private label brand "Bimi Anshin (delicious and safe)," which puts a premium on ingredient quality and the production process.

Many of the company's part-time workers are homemakers and students, and a certain number quit every year due to environmental changes. In the last few years, a market-wide labor shortage has seen the company struggle to hire enough people to replace those leaving, and the company's job advertising costs are on the rise. To address these issues, it is undertaking the following two initiatives.

The first initiative is the deployment of automated semi-self checkout kiosks (hereinafter "semi-self checkout kiosks"), which the company began rolling out in the fall of 2016. With these kiosks, store staff scan products and customers pay by themselves. At stores that use the kiosks, there was a 15% reduction in part-time cash register staff needed. These 15% were then assigned to other jobs such as deli product preparation. As an added benefit, this put an end to customers getting the wrong change back, eliminating the time normally spent to check for such errors. At around ¥4 million for two machines, deploying semi-self checkout kiosks at all of its stores cost the company a hefty sum. However, the company sees the move as extremely effective given rising labor and job advertisement costs.

The second initiative involves using tablets as a learning tool for employees to watch videos of jobs such as backroom deli item preparation. Previously, newly assigned staff had to be taught by more senior staff about their job and the processes involved. This placed a heavy burden on the senior staff due to the relatively high turnover among part-timers at the company. When the tablets were introduced in 2016 as a learning tool, it became possible for new hires to learn about their job through videos. This led to less time spent on senior staff teaching new hires and allowed them to engage in deli item preparation or other work. In addition, these learning tools have allowed staff to study other jobs with which they have no experience and prepare them to handle multiple kinds of work.

Automated semi-self checkout kiosk

Tablet (with a video manual)

Says the company's president, Masashi Mishina, "it takes manpower to prepare fresh foods and deli items at our stores, but being able to provide fresh foods prepared in-store and just-made deli items is an Ichiyama Mart strength. Amid a workforce shortage, we are saving labor by automating cash register work and whatever other work we can, while focusing more on the company's strengths. Through these efforts, we will continue to provide products that satisfy our customers."

Section 4 Summary

In this chapter, we have concentrated our analysis on capital investment by SMEs. We confirmed that the current state of capital investment by SMEs is characterized by a gradual rising trend centered on investment in maintaining and/or updating aging equipment. However, it is also clear that there are problems such as the generally passive stance of SMEs towards capital investment linked to raising productivity, such as labor saving investment.

We then analyzed the reasons behind the lack of strength in capital investment by SMEs given the favorable factors in the investment environment, such as historically high levels of ordinary profit. Our analysis showed that one main cause is probably the fact that, given the declining anticipated growth rate in Japan's economy and the increasing number of enterprises without successors, SMEs no longer see much of a future for their businesses. The other key factor is that some SMEs are running a current account deficit and are withholding investment due to their funding limitations.

Lastly, we analyzed the correlation between capital investment and productivity. This revealed that SMEs are slower than large enterprises in making effective use of funds and that labor saving investments are vital if they are to raise their productivity. Ramping up the promotion of capital investment would also help SMEs deal with worsening labor shortages, which is likely to boost their productivity.

Chapter 6

Improved labor productivity through business restructuring and integration based on M&A

While the business conditions of SMEs are on a gradual upward trend it can be said that management decisions are becoming more difficult in comparison with the past in the face of structural challenges such as market maturity, a declining domestic population and globalization. In addition, constraints on management resources such as shortage of manpower also play a large part for SMEs. With these restrictions in mind, business restructuring and integration centering on M&A as a strategy for growth is considered to be an effective option for SMEs to develop new business and expand business in order to improve labor productivity.

On the other hand, aging business owners and the number of businesses closing down remains at a high level for SMEs and micro businesses. Meanwhile M&A for SMEs has come to be regarded as an option for enterprises without any successor in place, and as an option for enterprises planning on closing down for them to pass on management resources to the next generation.

Matching up SMEs looking for growth with SMEs that have no successor is also an important issue for improving the productivity of the entire Japanese economy. In this chapter we will outline the current state of business restructuring and integration and clarify the effects and challenges for its implementation with a focus on M&A for SMEs.

Section 1 M&A background

In this section we will first outline the management issues surrounding M&A for SMEs. Whereupon we will review business succession and the particularly big problem of the increasing age of business owners and look at the context of putting M&A into practice.

1. Management issues for SMEs

As we saw in the previous chapter SMEs face a serious shortage of manpower and are plagued with problems including outdated facilities.

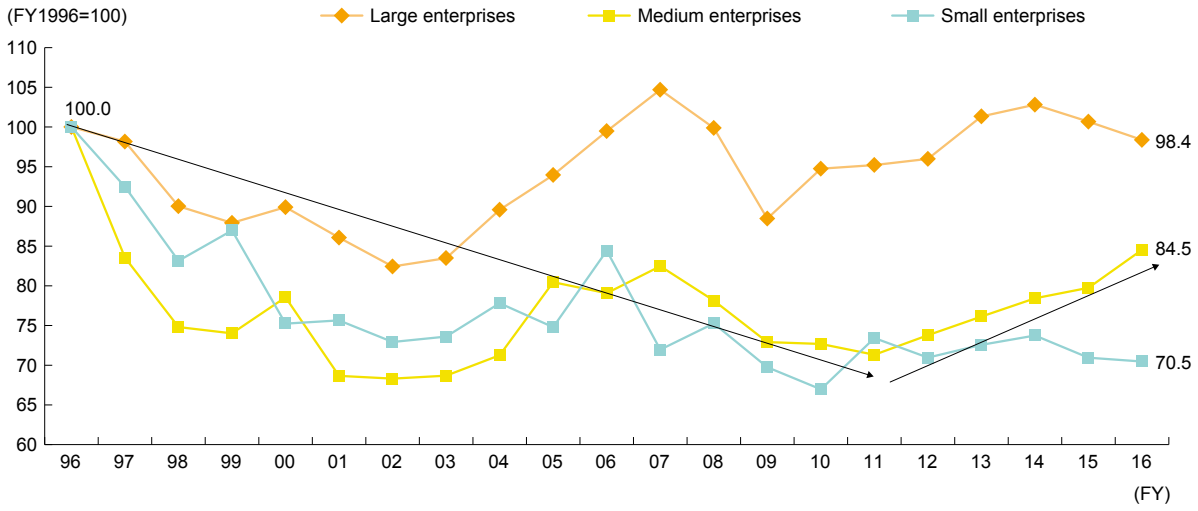
Furthermore, the declining Japanese population will not only seriously hasten labor shortages but will also reduce domestic demand. Population decline has become more severe in areas outside the three major metropolitan areas, especially in rural cities, towns and villages[1]. Enterprises located in such areas are faced with the problem of fewer customers in existing commercial districts.

Moreover, changes in the business environment are taking place with intensified international competition due to globalization and shortening product life cycles[2] due to technological innovation. In addition, as we have seen in the previous chapter, new technologies such as IoT (Internet of Things), big data, AI (artificial intelligence) and robotics etc. are continuing to develop and there is the very real possibility that the industrial structure will change suddenly in the future. If we cannot adapt to such changes, we can say that it will become increasingly more difficult to succeed and grow.

In such circumstances as these, when we look at sales over time per company based on company size, even though it is on an upward trend at the current time sales have not exceeded the level of 20 years ago (Fig. 2-6-1).

1) Please refer to Fig. 3-1-3 of the *2015 White Paper on Small and Medium Enterprises in Japan*.
2) In the *White Paper on Manufacturing Industries (Monodzukuri) 2016* edition, results of a survey on how product life cycles in the manufacturing industry are changing compared to 10 years ago show that while there are many responses stating that product life cycles have "not changed so much," analysis results show that many enterprises across all industries state that product life cycles are "getting shorter" rather than "getting longer."

Fig. 2-6-1 Sales over time per company based on company size



Source: MOF, *Financial Statements Statistics of Corporations by Industry, Annually*.
Note: Large enterprises here refer to enterprises with a capital of ¥1 billion or more, and medium enterprises refer to enterprises with a capital of ¥10 million or more and less than ¥100 million and small enterprises refer to enterprises with a capital of less than ¥10 million.

Amid this business environment it is thought that enterprises are utilizing M&A not just as an M&A acquirer (hereinafter referred to as "buyer") but also as an M&A transferor (hereinafter referred to as "seller") as a means to expand their areas and scope of business to improve sales.

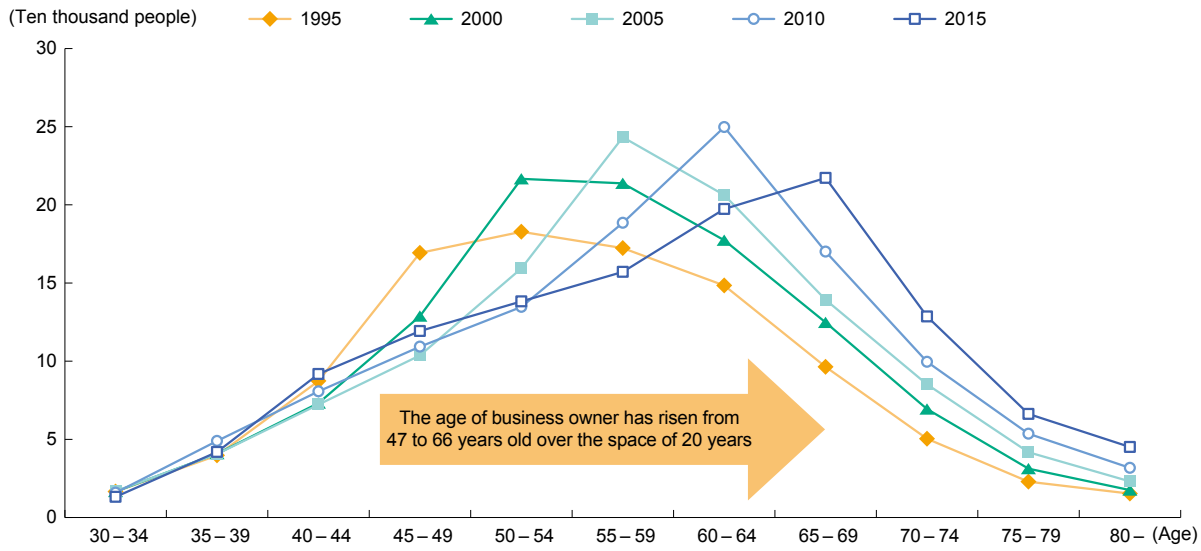
2. The increasing age of SME business owners and business succession

Next, we will look at the increasing age of business owners and business succession for SMEs within the backdrop of M&A sellers.

(1) The increasing age of SME business owners

Looking at the range of SME business owner ages, the peak age for business owners in 2015 was 66 years old whereas in 1995 it was just 47 showing that the age of business owners has been progressing over time (Fig. 2-6-2).

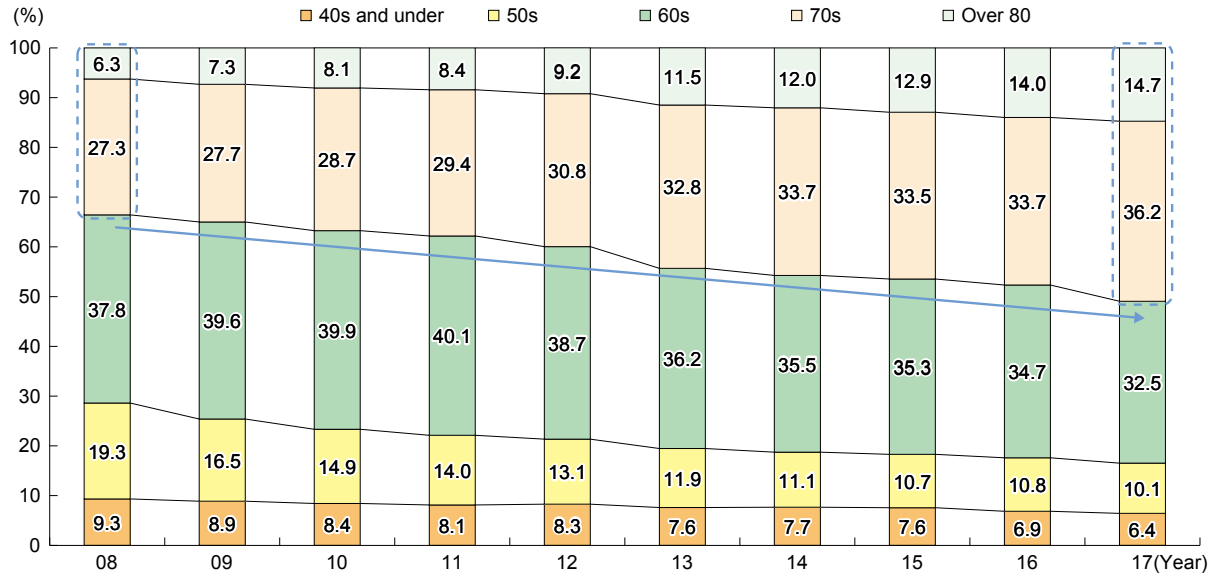
Fig. 2-6-2 The range of SME business owner ages by age group



Source: Recompiled from *COSMOS2 (Enterprise Overview File)* conducted by Teikoku Databank, Ltd.

Next, looking at the ratio of the age composition of business owners for enterprises being suspended, closed down and dissoluted against the backdrop of an increasing business owner age, the proportion of "70s" and "Over 80" can be seen to have increased over time (Fig. 2-6-3). For these enterprises there is a certain degree of possibility for opting to close down the business due to the increasing age of business owner and absence of any successor.

Fig. 2-6-3 Changes in business owner age composition ratio for enterprises suspended, closed down and dissoluted business

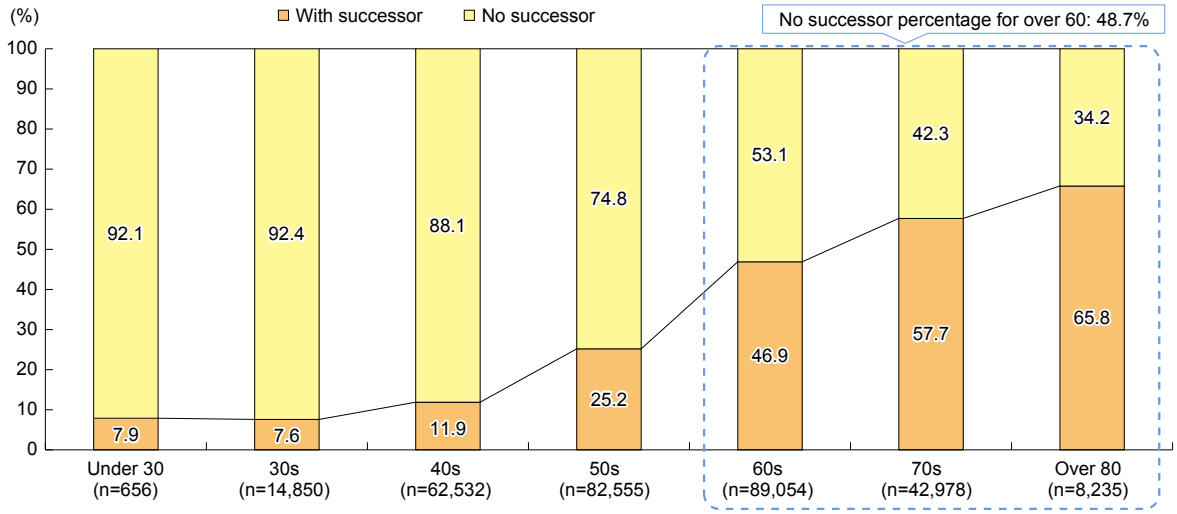


Source: Tokyo Shoko Research, Ltd., *2017 Survey of Business Suspensions, Closures and Dissolutions*.

(2) SME business succession

While the average age of business owners continues to increase it is assumed that the age of retirement for SME business owners is between 68 and 69 years old[3] and thus businesses are succeeded to the next business owner (successor) at the time of retirement. Looking at the findings of Teikoku Databank, Ltd. regarding the presence or absence of such successors, we can see that even for enterprises with older business owners there is a certain percentage of these enterprises without a successor in place (Fig. 2-6-4). For business owners over the age of 60 years old 48.7% are without any successor.

Fig. 2-6-4 Successor decision situation by president age



Source: Teikoku Databank, Ltd., *Survey on Actual Situation of Enterprises with Regards to Successor Problems in 2017* (November 2017).

Notes: 1. Targets for analysis were enterprises which could analyze the actual situation of successors since 2015, taken from COSMOS2 (1,470,000 recorded companies) and credit research report files (1,700,000 recorded companies).
2. Target also includes large enterprises.

For enterprises which do not have any successor or successor candidates, M&A is also one possible option for business succession[4]. It can be said that business succession for SMEs is one of the reasons for utilizing M&A.

3. Summary

In this section we have looked at the background behind SMEs grappling with M&A. Japan is in the midst of a serious labor shortage and decrease in domestic demand due to its declining population, and there are changes in the business environment with globalization, shortening life cycles and the emergence of new technologies such as IoT. Adapting to these changes and sustaining growth is a management issue facing both M&A buyers and sellers.

Some enterprises also choose to close down because they are unable to secure a successor due to the ever increasing age of business owners. Even if the time is ripe for a management handover M&A is an option for business succession for enterprises which have not secured a successor.

Based on the above, it appears that there is a backdrop for SMEs to do M&A from the perspectives of both the buyer and seller.

3) In the *2017 White Paper on Small and Medium Enterprises in Japan*, we analyzed the age of business owners before and after management change using the corporate database from Tokyo Shoko Research, Ltd. According to this, the average age before management change within the family was 69.3 years, and in the case of management change to a person outside the family the average age before the change was 63.7 years old. Additionally, the age of business owners who have suspended, closed down and dissoluted their business was 68.4 years old.

4) In the *2017 White Paper on Small and Medium Enterprises in Japan*, 33.3% of medium-sized enterprises that do not have candidate successors believe that "a business transfer, sale or integration (M&A) would be OK if it is for the sake of continuing the business," which is higher than the 20.2% of medium-sized enterprises that have a successor or candidate successor.

Case 2-6-1 Nagoya University of Commerce & Business

A university that nurtures successors for SMEs, in partnership with credit unions

Nagoya University of Commerce & Business, located in Nisshin City, Aichi Prefecture, provides specialist education tailored to nurturing successor personnel for businesses. Its undergraduate school provides a Business Continuation Course, and its graduate school (Business School) has opened an MBA Program and MBA courses, and is actively engaged in nurturing successors for SMEs.

The Business Continuation Course in the university's baccalaureate degree program, established in 2013, ranges from basic knowledge of management science to the expert knowledge required for company management, over its four years. In addition, it aims to instill in students the values of a manager and the attitude needed in the leader of an organization, raising their awareness of business continuation as a successor. All master's degree programs hold weekend classes, so that working adults can also study. Through practical study by the case method, centered on teaching staff who are also business people, these programs aim to raise leaders who can lead businesses into sustainable growth and keep on tackling challenges.

With business continuation becoming a challenge even in Aichi Prefecture, the University signed a partnership agreement in July 2015 about business continuation support with the 15 credit unions of the Aichi Prefectural Society of Credit Unions. Together, they established the Nagoya University of Commerce & Business Research Center for Business Continuation. This move, a partnership of industry and academia, is attracting attention as Japan's first joint attempt by a university and credit unions to nurture personnel for business continuation, with succession in family businesses in mind. Other than establishing a quota for students with recommendations from credit union agencies, the agreement opened an MBA course called "business continuation and innovation (Aichi Prefectural Society of Credit Unions partnership class)."

The University's education emphasizes the use of real management examples (cases) in the case method, by which participants learn through discussions from their own perspectives. In this learning style, the students themselves take the lead in learning. The case method tackles management issues that managers and executive-level personnel confront, and the class format has students discuss and deliberate on that they would do if they were in the positions of the parties involved, working through and re-experiencing the thought processes. This method allows students to experience cases in other companies and industries that they have never experienced before. In the process, they gain new perspectives and notice many aspects. When a parent-and-child pair of SME managers participated, they could observe each other commenting on other companies' cases, notice differences in their ideas about management, and get to understand each other better. The University has compiled over 1,200 cases for use as course completion assignments for master's degree students. Of those, around 300 cases about SMEs are used as teaching materials.

According to the *2014 White Paper on Small and Medium Enterprises in Japan*, the lack of anyone for managers to consult with is a major issue, and a high proportion of businesses had nobody to consult about shutting down. Students who have studied together at the same business school are very likely to be there for each other to consult when they have become managers. Dean of the Faculty of Management Hiroyuki Kurimoto says "The numbers of students addressing business continuation in their MBA graduation subjects are growing year by year, and I feel that interest in the subject is rising. In recent years, a widening and diversifying range of supporting agencies has been involved with issues such as business continuation, second foundations, and M&A. As they provide diverse partnerships and cooperation, credit unions and other community financial institutions also want to help to nurture managers for the SMEs and micro businesses that are pivotal in industry and job creation in the community."

Classroom scene in the Business School

Section 2 The current state and situation of M&A

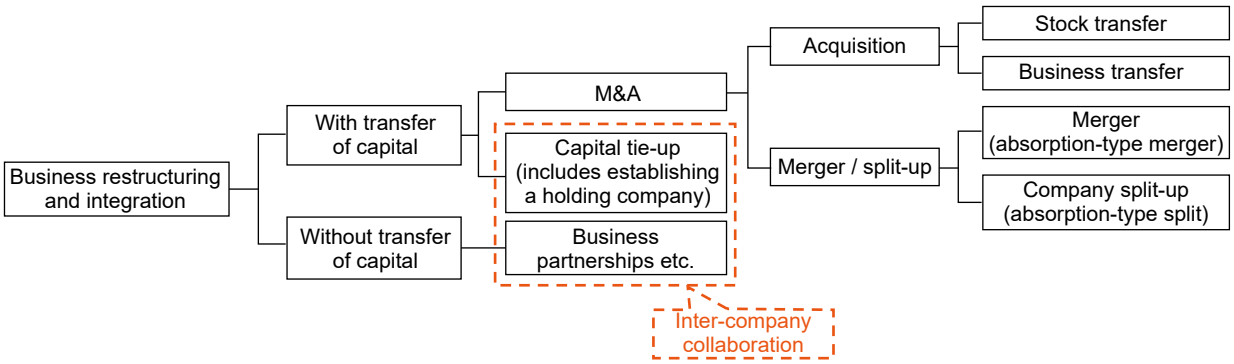
In this section we will look at the current state and situation of M&A for SMEs. To begin with we will outline the general ideas of business restructuring and integration centering on M&A in this chapter. Following which we will look at the current state of M&A and the situation enterprises face in implementing M&A.

1. What is business restructuring and integration (M&A)?

(1) The concept of M&A

Firstly, Fig. 2-6-5 summarizes the respective approaches for business restructuring and integration dealt with in this chapter with reference to the *Business Succession Guidelines* formulated in March 2015.

Fig. 2-6-5 The concept of business restructuring and integration



The features of each of these approaches will be discussed in detail below.

(2) Stock transfer

A stock transfer refers to the approach of becoming a subsidiary through the transfer of outstanding shares owned by the business owner (shareholder) to the acquiring company. Just by changing shareholders (and business owners) of the acquired company, relationships within the company such as employees, company debts, contracts with third parties, permits and licenses etc. can continue as normal and compared with other approaches it is a relatively straightforward procedure.

(3) Business transfer

Business transfer means a method of transferring all or part of the business owned by the company to be transferred (including assets and liabilities, such as factories and machinery, in addition to know-how and intellectual property rights). Procedures are likely to be complicated when transferring assets, liabilities and contracts, etc. piece by piece, as it is necessary to change the debts and credits, contract relationships, employment relationships, and licenses one by one. On the other hand, since it is possible to transfer each individual business or asset it is also possible to leave any part of the business meaning that the buying company will acquire only certain divisions of the business (assets and liabilities etc.) giving the advantage of being more efficient.

(4) Merger (absorption-type merger)

A merger refers to a method of integrating two or more companies into one corporate body. The company being merged effectively disappears when all the company's assets, liabilities and employees etc. are transferred to the acquiring company. The shares of the merged company

are, in principle, exchanged at a fixed rate into the shares of the acquiring company. Although from a legal perspective the two companies form a stronger union together more so than being single entities, due to the integration of the organizations and their human resources it is thought to be difficult for merging companies to bring together their respective employment conditions and administrative procedures. Additionally, in cases where its own shares are valued and in cases where the resultant company or acquiring company needs to be aware of any unlisted liabilities (because the merged company is wholly and entirely succeeded) acquisition costs are in general not required, but it is necessary to pay attention to the fact that the shareholders of the merged company become part shareholders of the resultant company.

(5) Company split-up (absorption-type split)

A company split-up refers to an approach in which a company which operates a number of different businesses cuts off one (or more) of its businesses into a separate subsidiary or sister company and transfers shares to the newly formed company, or merges (absorption-type split). Because company split-ups guarantee employment for the split business through Labor Contract Succession Law they have the benefit of protecting employees' current employee status. They also have the benefit of being able to directly move contract relationships and licenses to the split company[5]. This approach has the advantage of being efficient for the business which has been transferred, or split, because only certain divisions of the original company are acquired.

(6) Capital tie-up

A capital tie-up is an approach where shares are mutually held by two companies with neither company having dominance over the other, or where shares are acquired or where third party allocated shares are underwritten in order to further strengthen a business partnership.

(7) Business partnerships etc.

Business tie-ups etc. refer to an approach (such as joint research and development, joint distribution, joint purchase, etc.) that establishes a cooperative business relationship between companies through contractual relationships which do not involve any transfer of capital etc.

The following in this chapter looks in detail at M&A as stock transfer, business transfer, merger (absorption-type merger) and company split-up (absorption-type split). In addition, this chapter will look at inter-company collaboration which includes capital tie-ups as well as business partnerships by way of actual implementations set out in Column 2-6-1.

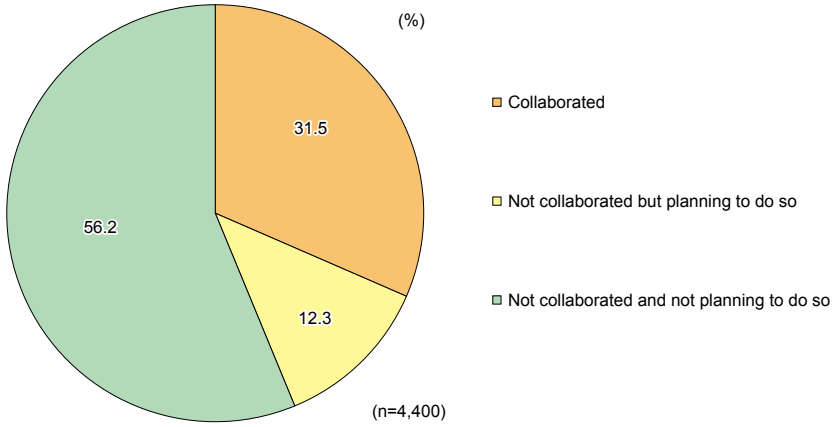
5) Please refer to the corresponding government office with regards to advisability of transferring permits and licenses.

Column 2-6-1 Inter-company collaboration

Inter-company collaboration is a method that has traditionally been utilized in SMEs with poor management resources, but in recent years the point of contact with other companies' management resources has been changing due to advances in IT technology and the rise of sharing economies[6], and along with this it is thought that change will also occur in the best way for inter-company collaboration. In this column we will outline the actual situation of such inter-company collaboration.

Firstly, when looking at the state of inter-company collaboration, 30% of responding companies said that they have collaborated with other businesses (Fig. Column 2-6-1 (1)).

Fig. Column 2-6-1 (1) The state of inter-company collaboration

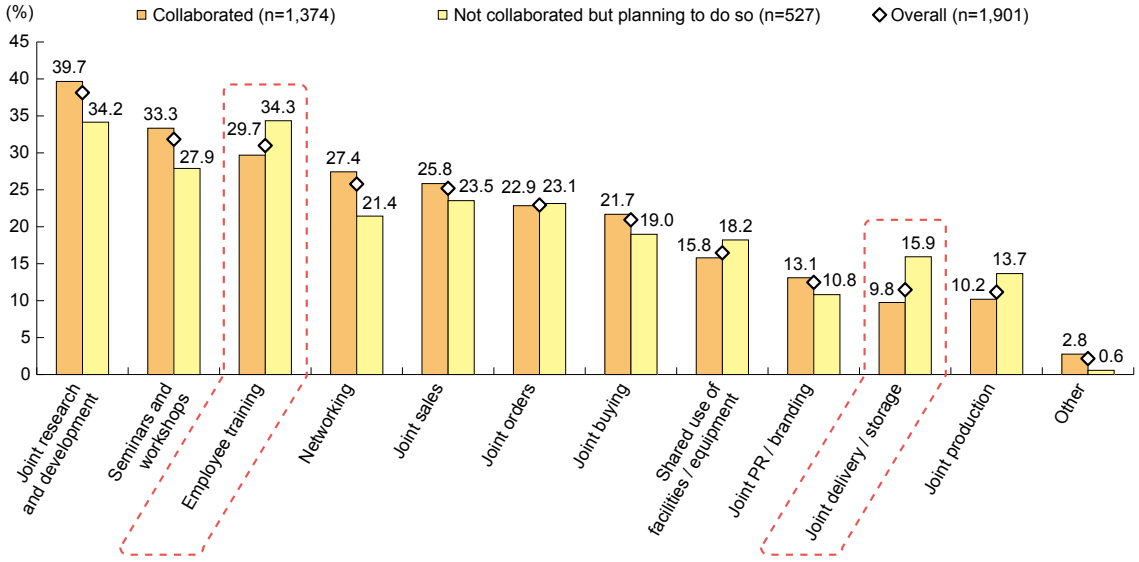


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Looking at the content of inter-company collaboration and possibilities for the future, "Joint research and development" featured most highly among enterprises that have "Collaborated." On the other hand, of the enterprises that have "Not collaborated but planning to do so" most cite "Employee training and development" as the reason for doing so (Fig. Column 2-6-1 (2)). Additionally, it is evident that enterprises which have "Not collaborated but planning to do so" are more interested in "Joint delivery / storage" compared with enterprises which have "Collaborated." From this it can be inferred that enterprises will consider inter-company collaboration as one streamlining measure in the transportation and logistics domain where there is a serious shortage of manpower.

6) According to the Cabinet Secretariat IT Strategy Office's *Review Process Relating to the Sharing Economy* (June 2016), the sharing economy is defined as "economic-revitalizing activities in which assets are made available over the internet and shared between private individuals."

Fig. Column 2-6-1 (2) The content of inter-company collaboration and possibilities for the future

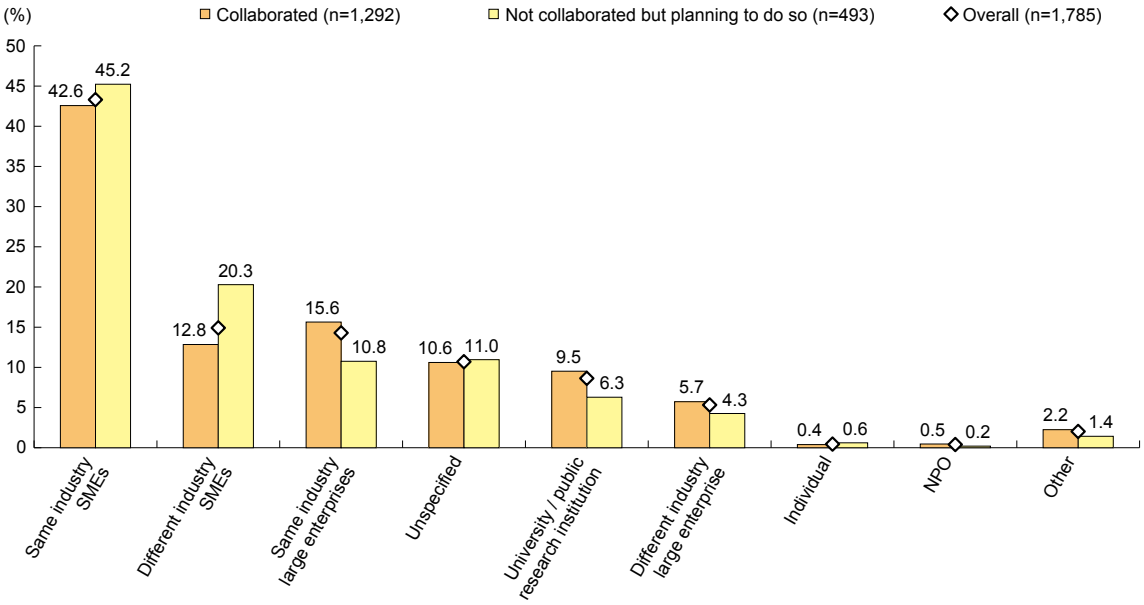


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Notes: 1. For those who have "Collaborated" answers correspond to the content of their collaboration. For those who have "Not collaborated but planning to do so" answers correspond to the future possibility of their collaboration.
2. Total does not always equal 100% as multiple responses were possible.

Next, looking at the most important partner for inter-company collaboration based on actual collaboration or possible collaboration, those enterprises which have "Collaborated" cite "Same industry SMEs" as the most important partner for inter-company collaboration (Fig. Column 2-6-1 (3)).

Fig. Column 2-6-1 (3) The most important partner for inter-company collaboration based on actual collaboration or possible collaboration

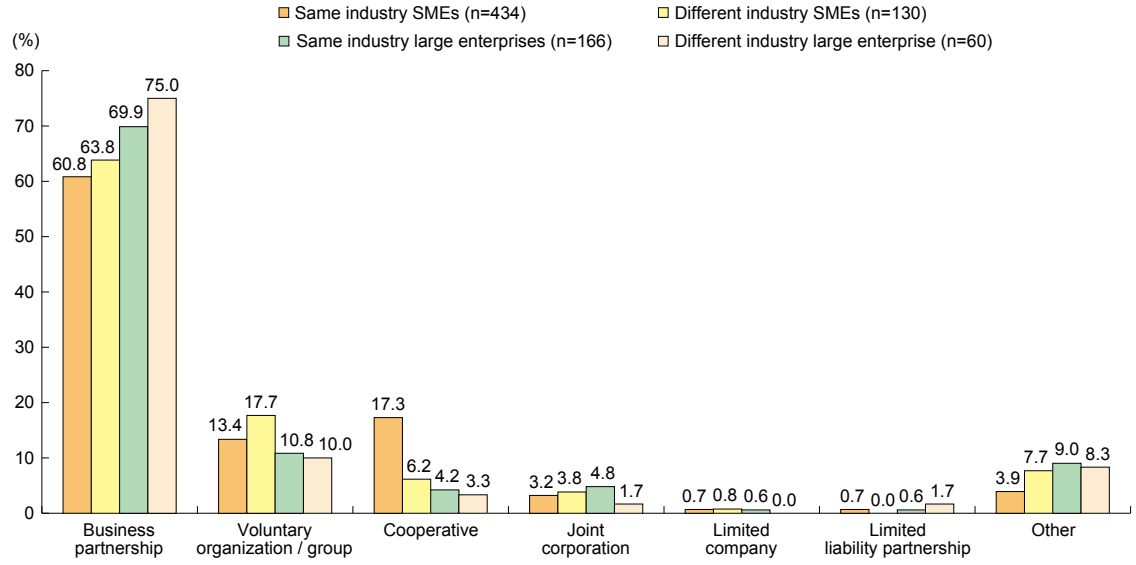


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Note: For those who have "Collaborated" answers correspond to partners collaborated with. For those who have "Not collaborated but planning to do so" answers correspond to those partners they would collaborate with in the future.

Because the proportion of collaboration between companies can be considered different depending on the type of business and company size of the most important partner, we will look at the most important partners in four groups, namely "Same industry SMEs," "Different industry SMEs," "Same industry large enterprises," and "Different industry large enterprises" (Fig. Column 2-6-1 (4)). We can see that the proportion of inter-company collaboration is highest in "Business partnerships" of which large enterprises and different industries tend to score higher.

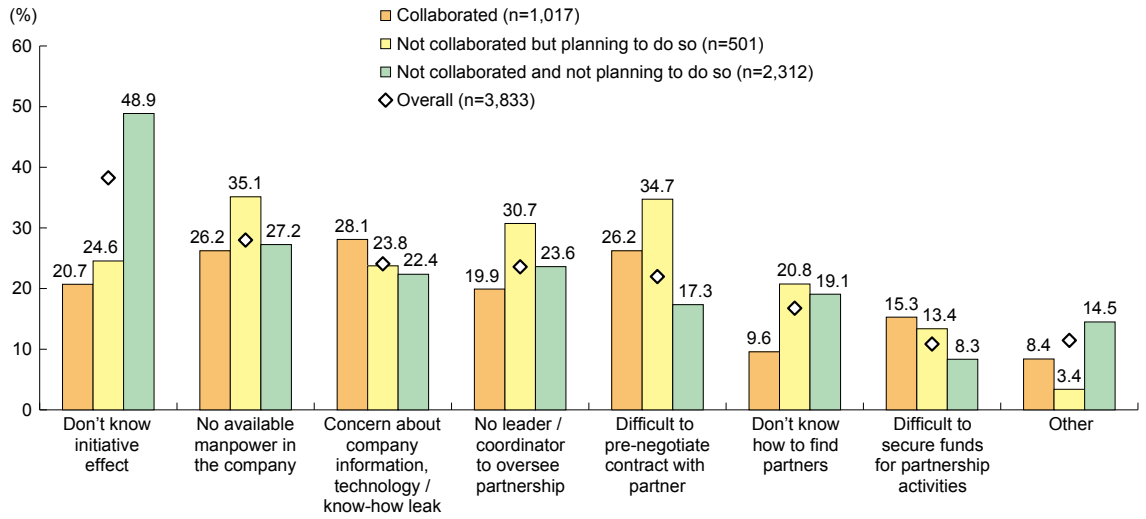
Fig. Column 2-6-1 (4) Inter-company collaboration based on collaboration partner



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Looking at the challenges of such inter-company collaboration based on actual collaboration or possible collaboration, most enterprises which have "Collaborated" are "Concerned about company information, technology / know-how leaks." Many enterprises cite "Difficult to pre-negotiate contract with partner" as a challenge or potential issue which shows that it is a problem to create contracts for handling intellectual assets such as technology and know-how. On the other hand, enterprises that have "Not collaborated and not planning to do so" often "Don't know initiative effect," and for enterprises that have "Not collaborated but planning to do so" many cite "No available manpower in the company" or "Difficult to pre-negotiate contract with partner" as issues they face (Fig. Column 2-6-1 (5)).

Fig. Column 2-6-1 (5) Inter-company collaboration challenges based on actual collaboration or possible collaboration

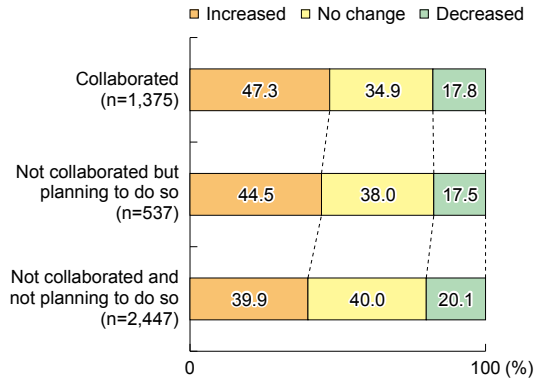


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

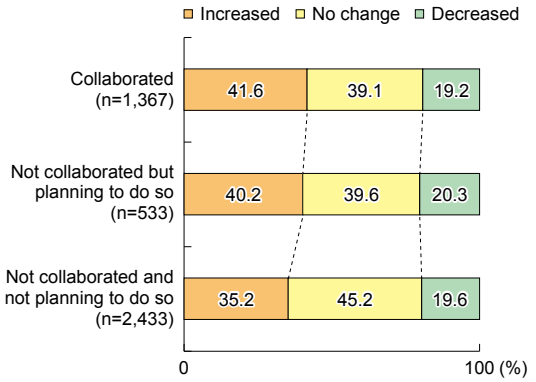
Let us now look at inter-company collaboration and performance trends (Fig. Column 2-6-1 (6)). Firstly, looking at inter-company collaboration based on actual collaboration or possible collaboration with regards to sales (performance) for the most recent 3 years, enterprises which have "Collaborated" responded that they have seen an "Increased" performance trend more so than those enterprises which have had no inter-company collaboration. Next, looking at inter-company collaboration based on actual collaboration or possible collaboration with regards to ordinary income (performance) for the most recent 3 years, enterprises which have "Collaborated" also responded that they have seen an "Increased" performance trend more so than those enterprises which have had no inter-company collaboration. To a certain extent we can say that there is an apparent effect when collaborating with other companies.

Fig. Column 2-6-1 (6) Inter-company collaboration and performance trends

(1) Sales (performance) for the most recent 3 years



(2) Ordinary income (performance) for the most recent 3 years

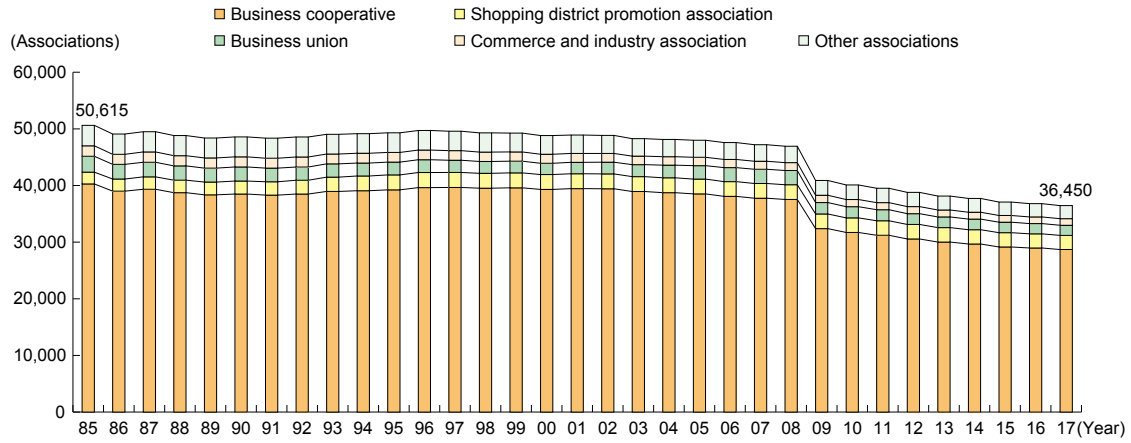


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Column 2-6-2 The current situation of SME partnerships

Here we will look at the current state of SME partnerships which can be said to be one form of business restructuring and integration. Fig. Column 2-6-2 (1) shows the trend of the number of SME partnerships based on the National Federation of Small Business Associations' *SME Partnership Trends in FY2017*. According to this the number of SME partnerships has decreased from 50,615 partnerships in 1985 to 36,450 partnerships in 2018.

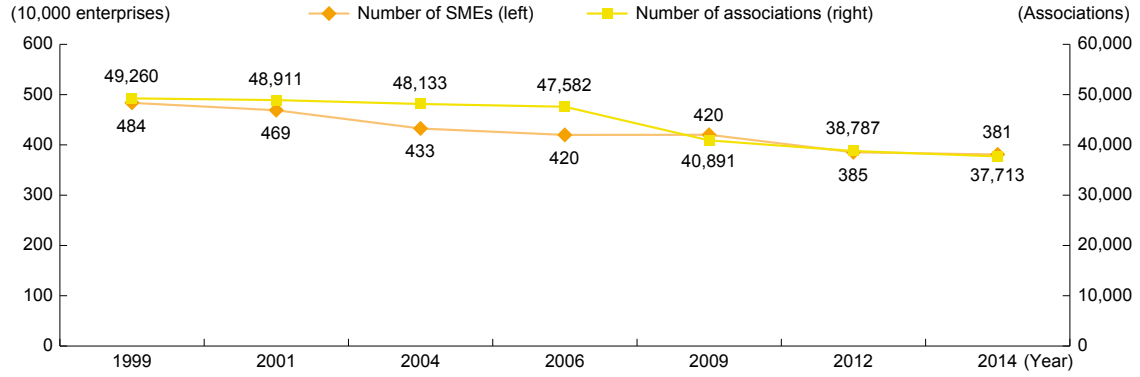
Fig. Column 2-6-2 (1) The trend of SME partnerships



Source: National Federation of Small Business Associations, *SME Partnership Trends in FY2017* (March 2018).
Notes: 1. Adjusted for dormant partnerships in 1987, 1990, 1993, 1996 and 1999. The number of partnerships in multiple jurisdictions was re-examined in FY2008.
2. Shows the number of partnerships as at the end of March each year.

The trend of the number of SMEs and the number of SME partnerships is shown in Fig. Column 2-6-2 (2). According to this we can see that the number of SME partnerships is decreasing in line with the decline in the number of SMEs.

Fig. Column 2-6-2 (2) The trend of SMEs and SME partnerships



Sources: Recompiled from MIC, *1999, 2001, 2004 and 2006 Establishment and Enterprise Census of Japan*; *2009 and 2014 Economic Census for Business Frame* and MIC, METI, *2012 Economic Census for Business Activity*.
National Federation of Small Business Associations, *SME Partnership Trends in FY2017* (March 2018).
Notes: 1. Adjusted for dormant partnerships in 1999. The number of partnerships in multiple jurisdictions was re-examined in FY2008.
2. Shows the number of partnerships as at the end of March each year.

While shortage of manpower is an ever increasing problem it is thought that further examination of the use of union organizations is effective for SMEs to strengthen their management foundation and complement their lack of management resources.

Case 2-6-2 Mitsufuji Corporation

A company which took business continuation as an opportunity to strengthen partnerships with other companies, and to raise its added value

Mitsufuji Corporation (employees: 35; capital: ¥1,174,500,000), located in Seika Town, Kyoto Prefecture, is a company engaged in the manufacturing, development, and sale of AGposs® silver-plated conductive fibers, and of hamon® wearable IoT products which use AGposs®.

The company was founded in 1956 as a factory making *kimono obi* (sashes) of *Nishijin* brocade, and expanded into a diverse range of textile products, such as lace fabric. It developed AGposs® silver-plated conductive fibers during the tenure of the previous president. This material has conductivity in the world's top class of performance, and has been traded with major electrical equipment and textile manufacturers. While the company had a product of outstanding functionality, most of the other product types it handled were controlled by trading partners, leaving their operations with a strong aspect of subcontracting. As such, the unit prices and traded volumes of its products were dropping year after year, leaving the company's business in a harsh position.

Mr. Ayumu Mitsudera, who became the company's third president in 2014, was strongly confident in the superiority of AGposs®, so he terminated the company's operations handling all other products, to focus on products using that material. As a result, the company's annual revenue dropped to around ¥10 million at one point, but it was also able to trim expenditures. In the course of diligent sales visits touring clients, President Mitsudera, who had extensive sales experience in a major IT company, was able to identify a way forward for the company, through wearable products that combine AGposs® with IT. While customers were working to develop similar products, their efforts never reached the stage of mass sales, so the company pursued its own development work, which led to hamon® wearable IoT products. hamon® products weave the company's silver-plated conductive fibers by a proprietary method, to fit closely to the body and gather high-precision physiological data. The products are expected to find uses in diverse fields, such as nursing and welfare, construction, and sports. They have achieved rapid growth, surpassing ¥300 million in sales in the year to December 2017.

Mitsufuji Corporation is working in partnerships with various companies to improve products. In particular, it emphasizes capital partnerships, and has received funding from large companies for product development and factory construction. Entering into capital relationships fosters closer partnerships by opening up feedback channels with the funding companies about Mitsufuji's products, accelerating the improvement of their quality. Mitsufuji has also taken in staff seconded from capital partners, bringing those partners' expert knowledge into the company and strengthening connections, to propel the business forward.

In future, the company aims to enter into equal partnerships with companies of all sizes, to generate new value and deliver it to customers. President Mitsudera says "The most important thing in business continuation is to not deny the potential of the business. Times change, and even a business area that the previous generation of managers, the parents, thought was no good can take off with a different approach. There are some things we had to discard in changing our approach, but we kept our corporate culture of craft in manufacturing. Beyond just "making good things," it is also necessary to recognize the importance of "proposing value," so if small and medium companies can identify the value a large company needs, and offer it that value, they can get into capital partnerships and develop their business."

The company's hamon® wearable IoT products and AGposs® conductive fibers

Case 2-6-3 Unagi Imo Cooperative

A cooperative that extended the efforts of a single SME into a collaborative business involving the community, established a local brand, and created added value

Unagi Imo Cooperative, located in Hamamatsu City, Shizuoka Prefecture, is a cooperative which worked to make the area a sweet potato growing region and developed a brand for related products, aiming to stimulate the region and raise farmers' incomes.

Mr. Takuma Ito, who founded the cooperative and works as its director, previously worked at Cosmo Green Niwayoshi (employees: 11; capital: ¥9 million), a company which provides landscaping services and grass and cutting composting. Mr. Ito, who was managing director at Cosmo Green Niwayoshi, saw that there many local farmers had no successors, and an increasing amount of land was falling out of cultivation. He resolved to enter farming as a new field of business for the company. Using the company's expertise from its previous operations composting branch and grass cuttings into fertilizer, it started agricultural production, but with the impact of typhoons and other adverse weather, the only crop it was able to harvest was sweet potato. The sweet potatoes varied widely in shape, size, and other quality attributes, partly because of the company's under-developed production skills, so they could not be sold as fresh produce. They also sold at low prices and were open to high weather and other risks, so sweet potatoes could only form a limited part of the company's business.

So the company thought of applying its composting skills, to use eel heads, bones, and other eel parts, provided for free by an eel processing factory in the city, as fertilizer to grow sweet potatoes. It then made the potatoes into a local specialty of Hamamatsu. On the sales side, the company aimed to turn the potatoes into cut pieces or paste, as ingredients for cakes and other processed foods, rather than selling them as fresh produce. The company had the central role, in collaboration with eel growers and farming production corporations, to develop "Unagi Imo" (literally "Eel Potato"). In 2011, the "Unagi Imo Project" started with the approval of the Ministry of Agriculture, Forestry and Fisheries under the Sixth Sector Industrialization Law.

The company also created the "Unamo" mascot character, and stepped up publicity through a website, blog, and social media, aiming to bring in more producers. These efforts brought together not just individual and corporate sweet potato producers, but also companies and individuals in a wide range of fields, including food processing, distribution, marketing, advertising, materials, and services. These formed into a cooperative in May 2013, which became the single buyer for all sweet potatoes grown by the members, to centralize post-harvest processes such as sorting, root cutting, and washing. The cooperative also handles the processing of sweet potatoes into paste as a cake ingredient, and raises the efficiency of shipping operations. It makes effective use of land that had been abandoned or left idle, and broadens the range of producers. By now, the broad membership includes 35 producers, 150 individuals, and 50 companies.

"Unamo," the official mascot character

Product development began with "Unagi Imo Pudding." After that, Takoman (employees: 380; capital: ¥50 million), a project member and Japanese cake manufacturer and marketer, suggested "Unagi Imo Tart" and "Unagi Imo Dorayaki" (bean jam pancake sandwich), which were put on sale. Other companies followed suit by suggesting many other products. Product ideas must pass screening by consumers, who participate as "Unagi Imo fans," to be developed. The screening fans taste each company's prototypes, rate their flavors, point out flaws, and so on. In this way, the cooperative can manage the trademark and brand of products using "Unagi Imo" and "Unamo" as "Unagi Imo Brand Certified Products," and collect related royalties from members. The royalty income is used to run the brand certification screening, protect trademarks and copyrights, pay designers, and otherwise reinvested in efforts to build the brand.


Takuma Ito, Director

Director Ito says "Efforts that are too much for single small and medium companies can be achieved by many companies and individuals in partnership. Since 2014, we have been expanding overseas, and we have already started shipping products to Singapore, Taiwan, Hong Kong, and Thailand. In future, we want to expand the market for "Unagi Imo," and link that to revitalizing the local community and broadening the incomes of farming producers".

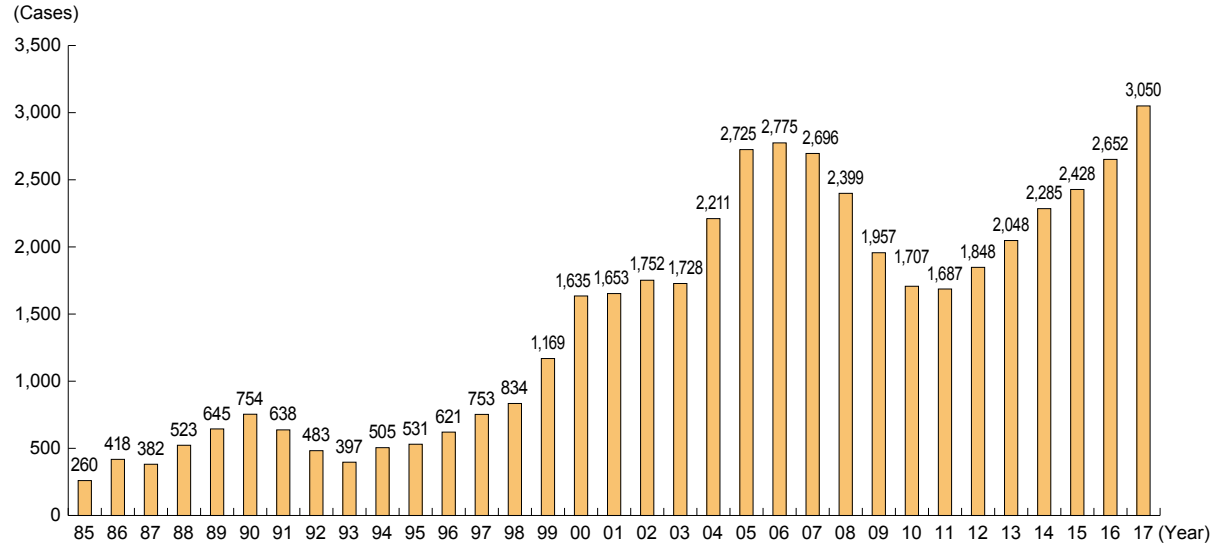
2. The current state of M&A

In this section we will outline the situation with regards to carrying out M&A. As we saw in the previous section we will look at the changes in enterprises that utilize M&A as a way to expand their scale of business and business area to improve sales.

(1) The number of M&A cases

The number of mergers and acquisitions by Japanese companies, according to a study by RECOF DATA Corporation, exceeded 3,000 in 2017 which is the highest ever recorded number of M&A (Fig. 2-6-6). Even though this is only the number of publicly available M&A it shows that M&A is on the rise in Japan.

Fig. 2-6-6 The trend in number of M&A

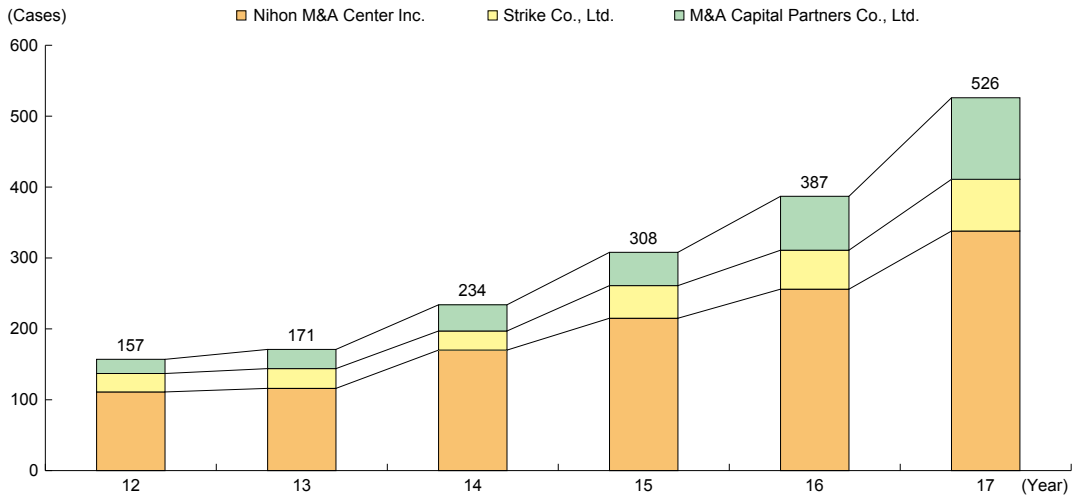


Source: RECOF DATA Corporation

(2) The trend of M&A among SMEs

Next we will look at the trends for SMEs carrying out M&A. The situation regarding SMEs carrying out M&A is that data is often unpublished and there are large data restrictions. With this Fig. 2-6-7 shows the number of agreements concluded with 3 brokerage firms (Nihon M&A Center Inc., Strike Co., Ltd, M&A Capital Partners Co., Ltd.) listed on the Tokyo Stock Exchange that mediate M&A deals for SMEs. The number of M&A agreements concluded by SMEs has more than tripled in 2017 since 2012. As mentioned in the survey results below, it is thought that M&A for SMEs often don't involve such intermediary agencies, but nevertheless, the trend is increasing.

Fig. 2-6-7 The number of M&A agreements for SMEs concluded through 3 listed brokerage firms

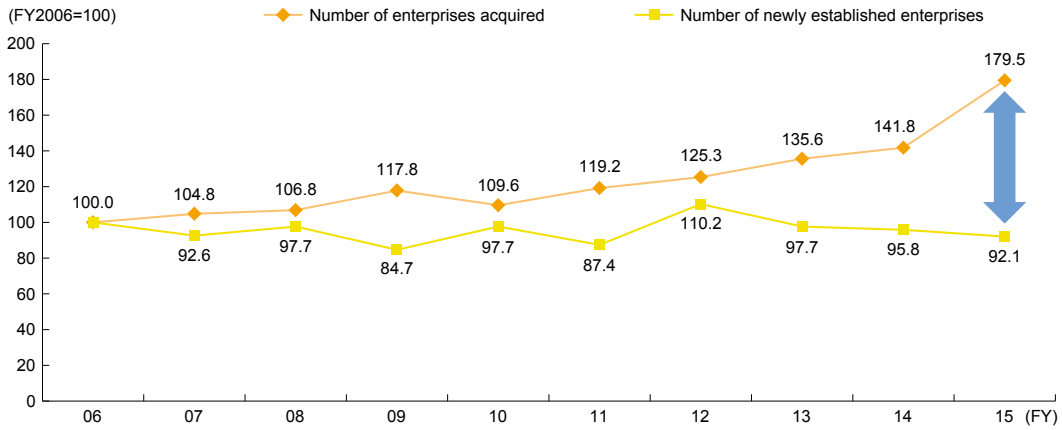


Source: Created by the SME Agency based on published data of 3 M&A brokerage firms listed on the Tokyo Stock Exchange.

Below, we will look at the implementation trends for business restructuring in SMEs based on results of METI's *Basic Survey of Japanese Business Structure and Activities*[7].

Many SMEs also establish subsidiaries or affiliated companies for the purpose of developing new business and expanding areas of trade. Fig. 2-6-8 shows the trend in the number of enterprises that increased subsidiaries by way of acquisitions and new incorporations. Compared with fiscal 2006, the number of enterprises that established new subsidiaries or affiliated companies declined, while enterprises which obtained subsidiaries and affiliated companies through acquisitions can be seen to increase by about 1.8 times. For SMEs we can say that more enterprises are opting to acquire other companies rather than build up their business by establishing new companies from scratch.

Fig. 2-6-8 The number of enterprises that increased subsidiaries or affiliated companies by acquisitions or new incorporations

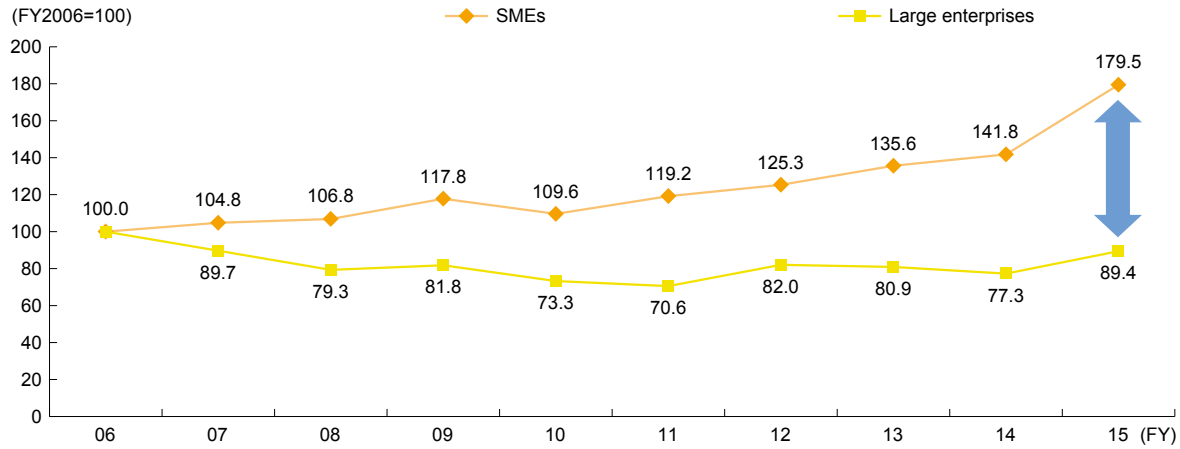


Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*
Notes:
1. SMEs are defined by the Small and Medium-sized Enterprise Basic Act.
2. As used herein, the "Number of acquiring enterprises" refers to the number of enterprises which have increased domestic subsidiaries or affiliates through acquisition by one or more companies.
3. As used herein, the "Number of newly incorporating enterprises" refers to the number of enterprises which have increased domestic subsidiaries or affiliates by incorporating a new company by one or more companies.

7) METI's, *Basic Survey of Japanese Business Structure and Activities* is not targeting enterprises with less than 50 employees, or enterprises with less than ¥30 million in capital or investment. Since giving the number of responding enterprises is not appropriate figures have been given as an index.

Subsequently, looking at the number of enterprises by company size that have increased the number of subsidiaries through acquisitions, compared with fiscal 2006 the number of large enterprises is decreasing, whereas for SMEs the number is increasing (Fig. 2-6-9). Compared with large enterprises, you can see that the number of SMEs that are acquiring other companies is increasing.

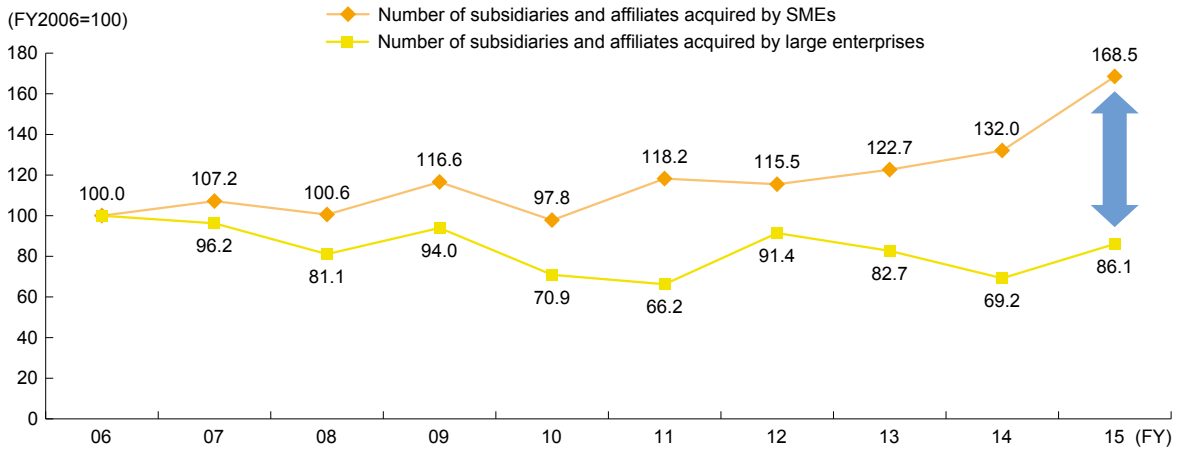
Fig. 2-6-9 The number of enterprises by company size that have increased subsidiaries or affiliated companies through acquisition



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*
Notes: 1. SMEs are defined by the Small and Medium-sized Enterprise Basic Act.
2. Indicates the number of enterprises which have increased domestic subsidiaries or affiliates through acquisition by one or more companies.

Finally, Fig. 2-6-10 shows the changes in the number of acquired subsidiaries and affiliates, as seen by the size of the acquiring enterprise. Looking at this we can see that the number of companies acquired by SMEs has increased considerably compared to companies acquired by large enterprises.

Fig. 2-6-10 The change in number of acquired subsidiaries and affiliates as seen by company size of acquiring enterprise



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*
Notes: 1. SMEs are defined by the Small and Medium-sized Enterprise Basic Act.
2. Indicates the number of enterprises which have increased domestic subsidiaries or affiliates through acquisition by one or more companies.

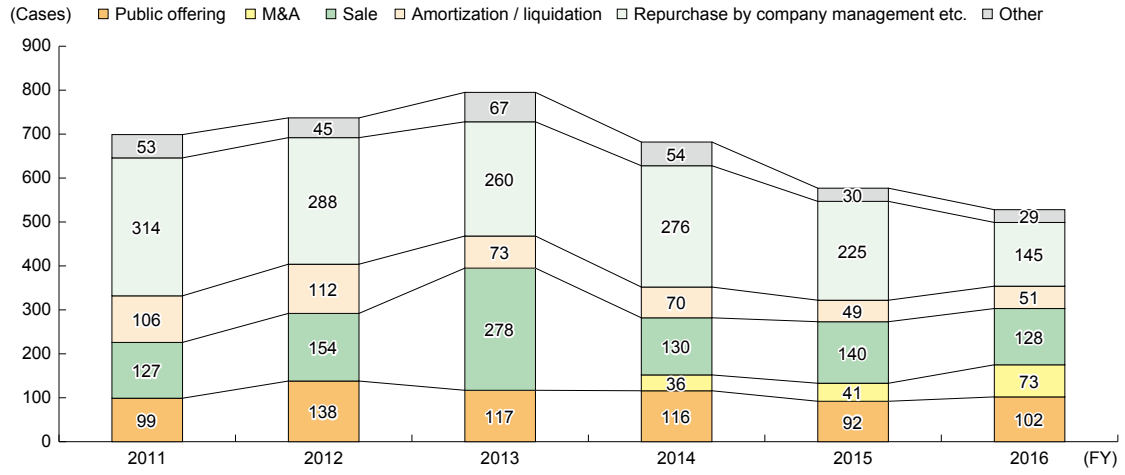
In this section we have looked at the state of M&A for SMEs within the context of the present M&A situation in Japan and seen from various viewpoints that many SMEs are conducting M&A with the number of these cases increasing. Even taking data constraints into consideration we can infer that mergers and acquisitions for SMEs are increasing in number and activity.

Column 2-6-3 Venture investment M&A

In this column let us look at the M&A situation of venture investments based on the Venture Enterprise Center's *VEC Yearbook 2017*.

First of all, looking at the number of venture investment exits we can see that the number of exits involving M&A for venture investments has increased in recent years (Fig. Column 2-6-3 (1)).

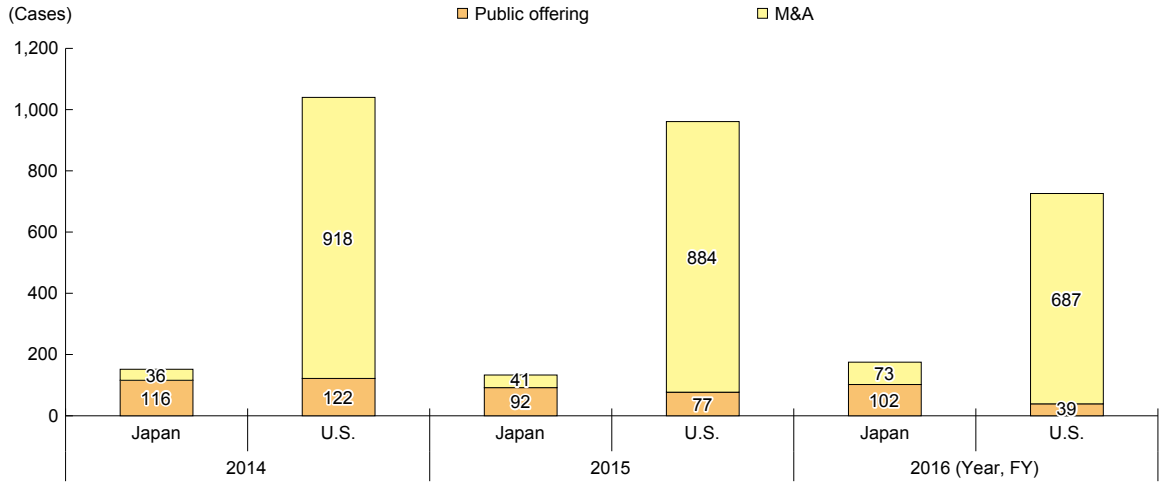
Fig. Column 2-6-3 (1) The trend in M&A exit numbers for venture investments



Source: Venture Enterprise Center, *VEC Yearbook 2017*
Notes: 1. Up until FY2013 M&A was factored into "Sale."
2. For FY2014 and beyond, M&A here means a sale involving the transfer of management rights, and sale means selling to a secondary fund or business connection, etc.

On the other hand, when comparing Japan with the United States, the number of M&A in comparison to the number of IPO is smaller in Japan than in the US (Fig. Column 2-6-3 (2)). In the US, IPO was once the exit strategy for venture investors, but M&A has become increasingly more popular with the collapse of the IT bubble in 2000. In Japan there are still many exits by IPO, but from the viewpoint of nurturing venture companies it can be said that the promotion of M&A as a way for venture investors to exit is an important one.

Fig. Column 2-6-3 (2) The comparison between IPO and M&A for venture investments in Japan and the US



Source: Compiled by the SME Agency from the Venture Enterprise Center, *VEC Yearbook 2017*.
Notes: 1. The number of IPOs and M&A in Japan is based on each fiscal year.
2. The number of IPOs and M&A in the US is based on each calendar year.

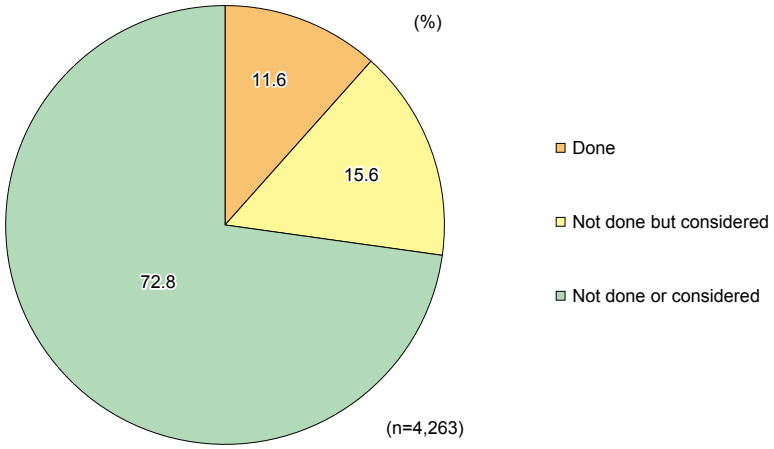
3. The present situation of enterprises conducting M&A

In the following we will look at the actual situation of enterprises conducting M&A from the *Survey on Collaboration Among Companies Looking for Growth*[8] questionnaire survey results (hereinafter referred to as "survey results").

(1) The implementation state of M&A

First of all, looking at the state of carrying out M&A in the past we can see that the proportion of SMEs that have done M&A is 11.6% which is not a very large number in terms of the current situation (Fig. 2-6-11).

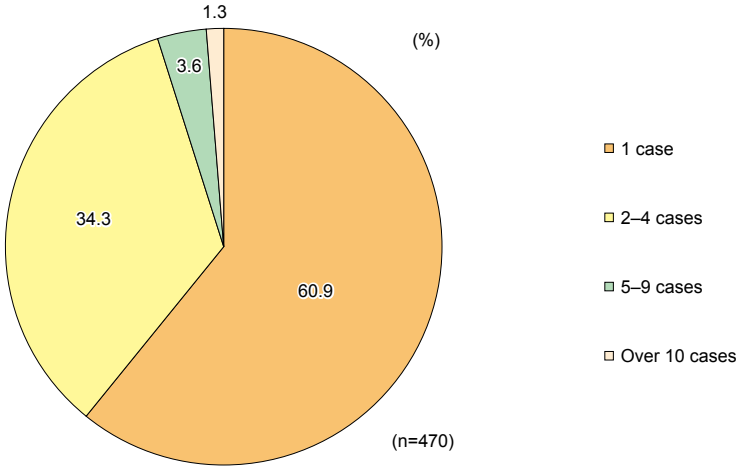
Fig. 2-6-11 The past state of carrying out M&A



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Looking at the number of M&As which have been done, most enterprises have only carried out one M&A, however approximately 40% of enterprises have carried out two mergers or more (Fig. 2-6-12).

Fig. 2-6-12 The number of M&As

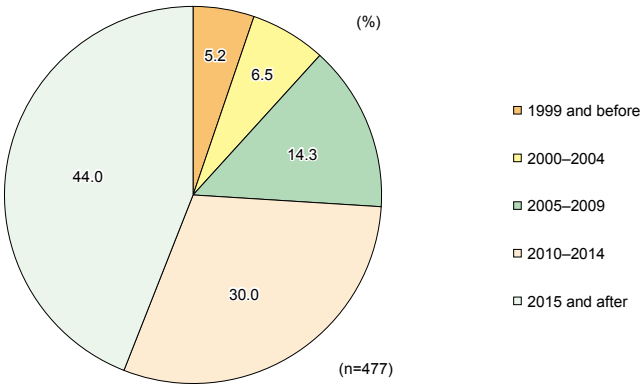


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

8) A questionnaire survey (response rate 14.9%) conducted by Mitsubishi UFJ Research & Consulting Co., Ltd. on 30,000 SMEs in November 2017. It is important to note that this survey targeted relatively large enterprises notably companies in the service industry with sales of ¥500 million or more, and in other industries companies with sales of ¥1 billion or more.

Looking at the timing of recent M&A, most were carried out in "2015 and after" indicating that mergers and acquisitions are becoming increasingly popular (Fig. 2-6-13). This is consistent with trends taken from various data we looked at in the previous section.

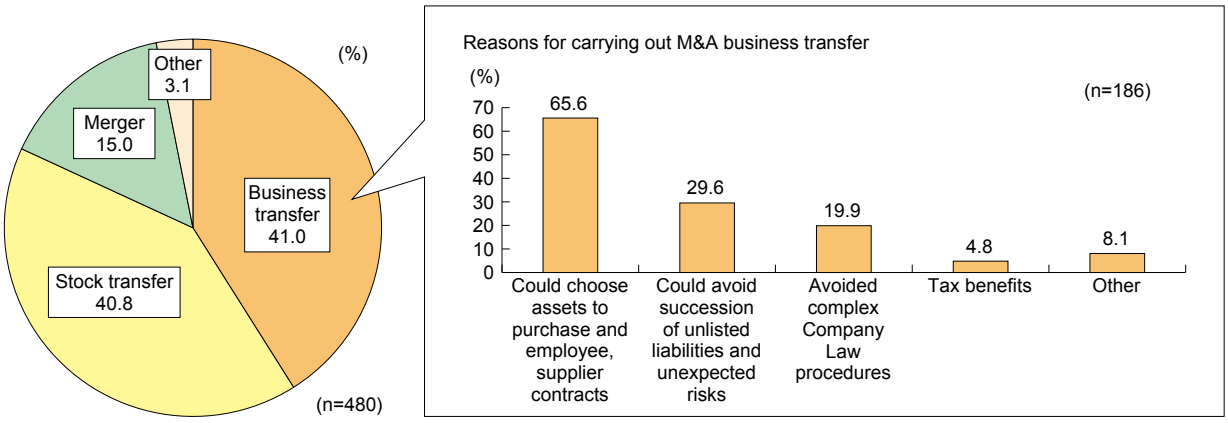
Fig. 2-6-13 M&A implementation timing



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.

Next, looking at the type of M&A, business transfer is the most common form at 41.0%, and then stock transfer at 40.8% (Fig. 2-6-14). Looking at the reasons why business transfer was carried out as an M&A approach, many respondents cited that they "could choose assets to purchase and employee, supplier contracts" and they "could avoid succession of unlisted liabilities and unexpected risks" suggesting that this approach is being utilized to control risks associated with mergers and acquisitions.

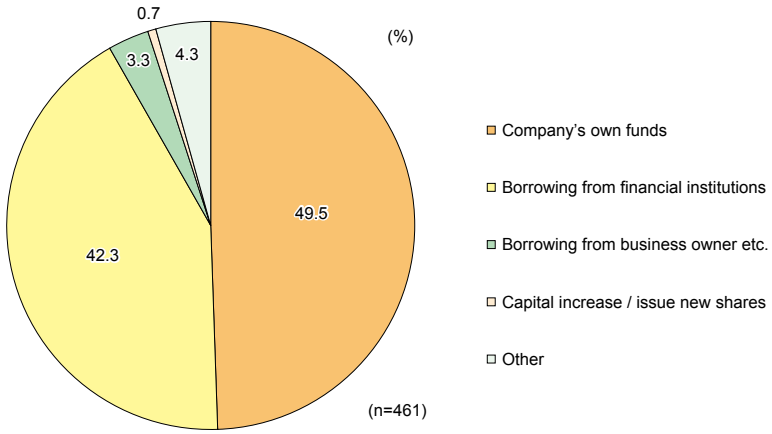
Fig. 2-6-14 The type of M&A



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Notes: 1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Due to multiple answers being given for "reasons for carrying out M&A business transfer" total does not add up to 100%.

Next, when we look at how funds are procured for M&A we see that most funds, 49.5%, were procured through "company's own funds," with "borrowing from financial institutions" coming in next at 42.3% (Fig. 2-6-15). From this we can infer that for many enterprises they are worried about not securing earnings as originally expected for the acquired company (business), so rather than risk borrowing funds from a financial institution, prefer instead to use their own company funds.

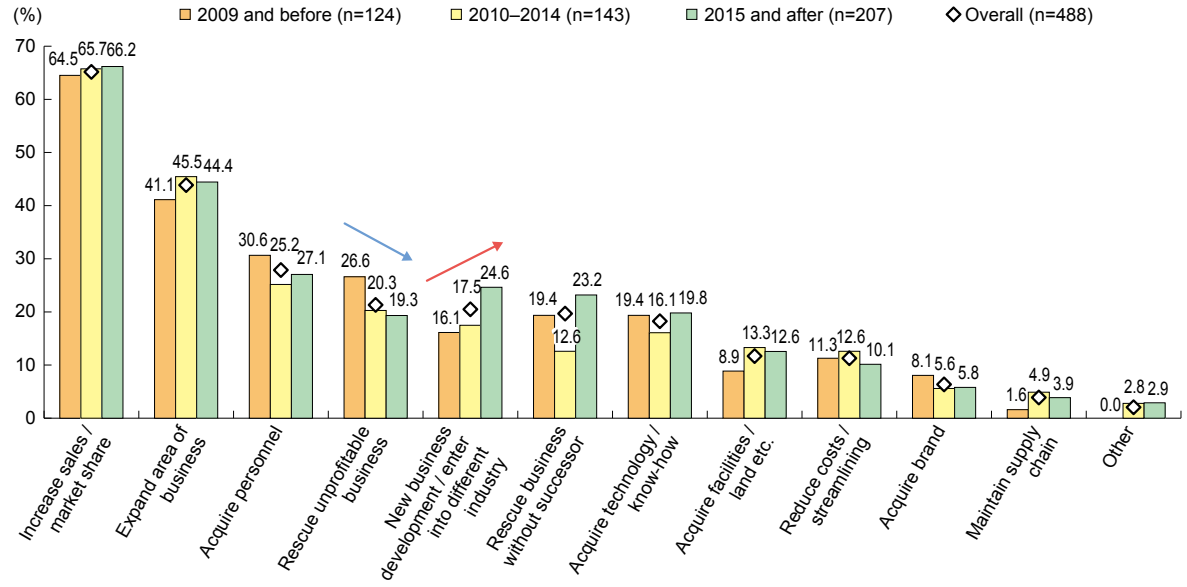
Fig. 2-6-15 Fund procurement for M&A



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.

Next, we will look at the objectives for doing M&A based on when the M&A was carried out (Fig. 2-6-16). "Increase sales / market share" has the largest response, followed by "expand area of business," which indicates that many enterprises carry out M&A with the aim to add more value. On the other hand, when we look at when the M&As were carried out, the percentage of enterprises that cited "rescue unprofitable business" is high in "2009 and before." In "2015 and after" however, the proportion of enterprises that cite "new business development / enter into different industry" as an M&A objective is increasing.

Fig. 2-6-16 M&A objectives based on when M&A was carried out

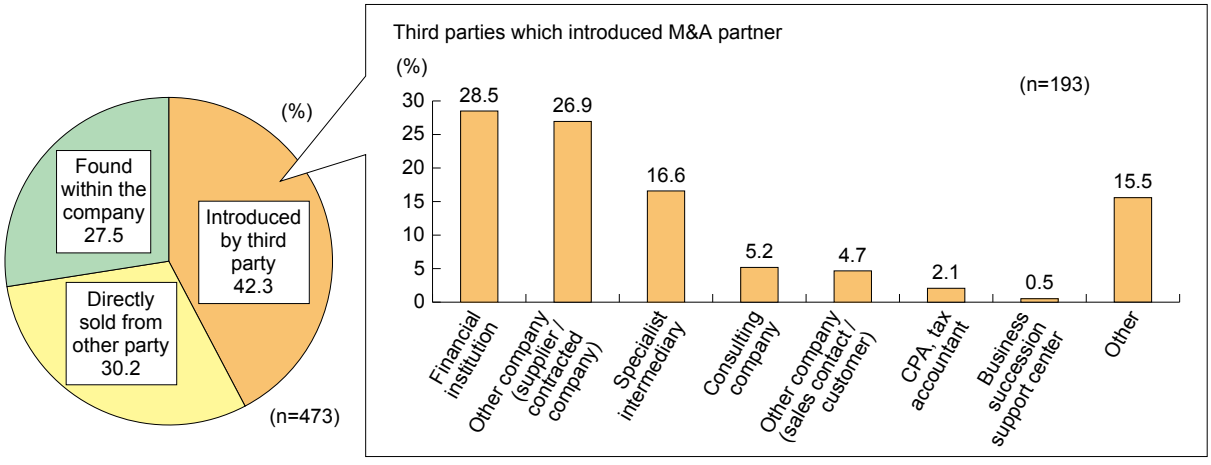


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Notes: 1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Total does not always equal 100% as multiple responses were possible.

(2) Other parties involved in M&A

Now let's look at the other parties involved in M&A. Firstly, when we look at how enterprises found the business to do M&A with we see that "introduced by third party" accounts for 42.3%. Of this percentage we can see that "financial institution," "other company (supplier / contracted company)" and "specialist intermediary" make up the most part (Fig. 2-6-17). On the other hand, 30.2% of enterprises said that they were "directly sold from other party," and combined with enterprises that were "found within the company" we see that many M&A are carried out directly between both parties.

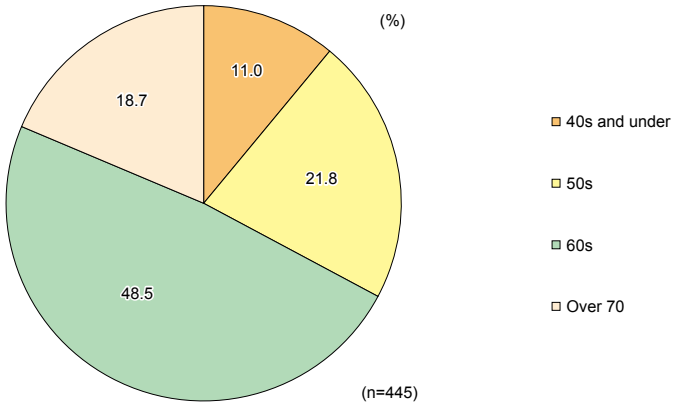
Fig. 2-6-17 How M&A partners are found



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.

Next, when we look at the business owner's age of the M&A partner we see that "60s" is the most common age bracket with 48.5% and combined with "over 70" accounts for 67.2% of business owners.

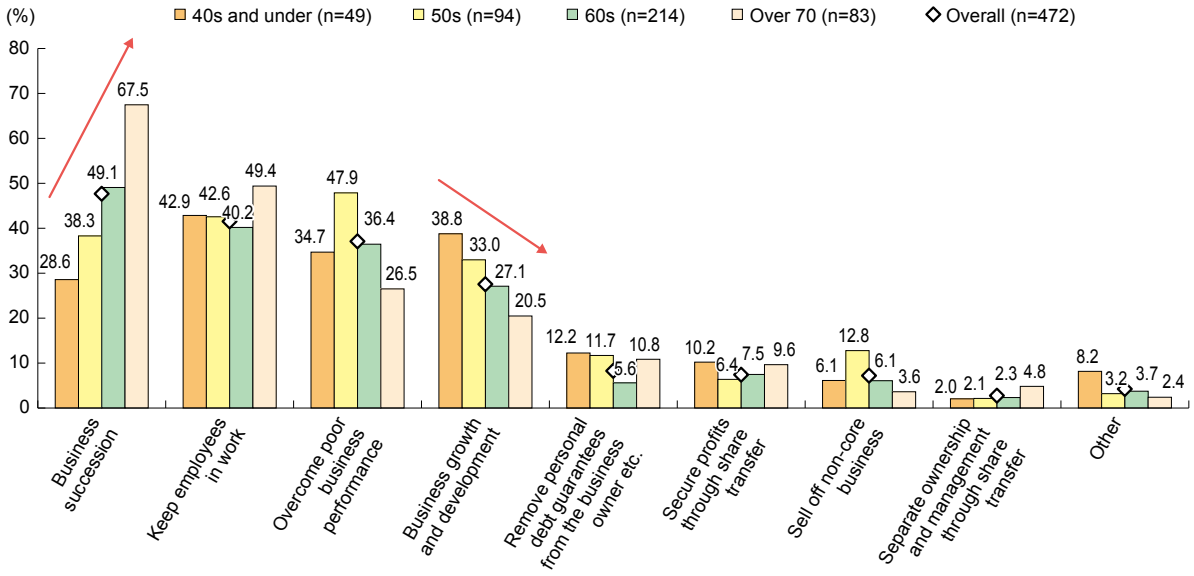
Fig. 2-6-18 Business owner's age of M&A partner



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.

When looking at the other party's M&A objective based on the other party's business owner's age we see that "business succession" rates as the most common response for other party business owners in the age ranges of "60s" and "over 70" (Fig. 2-6-19). It appears that M&A is being used as an approach by enterprises with older management and an absence of any successor. On the other hand, when the age of the business owner is "40s and under," the proportion of M&A for "business growth and development" is higher than any other age group in this category, suggesting that M&A is being utilized not for the purposes of business succession but more as a strategy for the growth of the company.

Fig. 2-6-19 M&A objectives based on other party's business owner's age



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Notes: 1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Total does not always equal 100% as multiple responses were possible.

4. Summary

In this section, after considering the ideas of business restructuring and integration centering on M&A, we looked at the current and actual situation of M&A for SMEs. M&A in Japan and the number of intermediary M&A deals concluded for SMEs is on the rise, inferring that the number of M&A for SMEs is also increasing.

Although there are still not a huge number of cases of SMEs that have actually carried out M&A there are many enterprises which have done M&A in recent years, which indicates that M&A is increasing in number and activity. For the types of mergers and acquisitions, business transfer and stock transfer are roughly the same in terms of number of cases carried out, with business transfer said to be an important M&A approach.

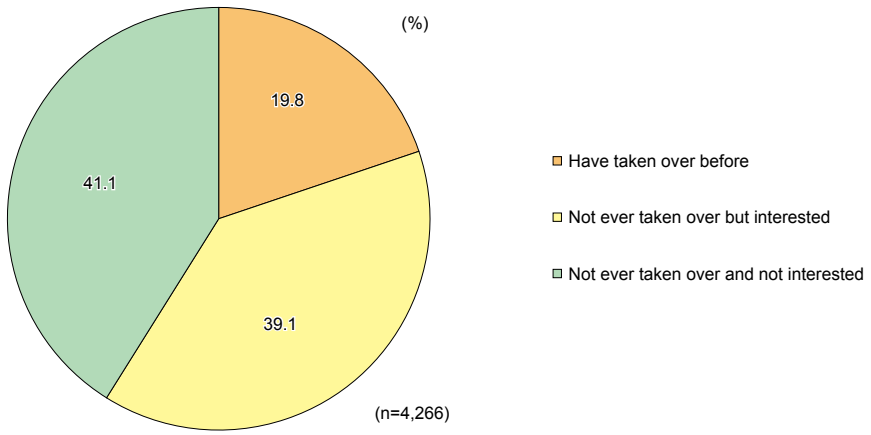
Turning our attention towards the other partner in the merger or acquisition we saw that there are many business owners in the 60s and over age bracket with many enterprises choosing M&A for the purpose of business succession. Many acquiring companies, or buyers, are aiming to expand their business, and by linking sellers who face the challenges of business succession, it is expected that the number of M&A will further increase.

When we looked at how potential M&A businesses were found we saw that many M&A are carried out directly between the two parties with responses such as “found within the company” and “directly sold from other party,” yet “introduced by third party” accounts for a certain percentage of how M&A businesses are found. Of these third parties there are many financial institutions, suppliers, contracted companies and specialist intermediaries which play a vital role in promoting M&A and it is expected that these third parties will continue to play a part in driving M&A forwards in the future

Column 2-6-4 Taking over management resources from closed down businesses

There are also cases where SMEs elect to close down their business due to difficulties in finding a successor. In this column we will look at not only M&A but also enterprises which have taken over management resources from such businesses. Firstly, Fig. Column 2-6-4 (1) shows whether or not enterprises have taken over management resources from closed down businesses. There are 19.8% of enterprises that have taken over management resources from SMEs that have closed down, which is more than half when combined with those enterprises that have "not ever taken over but interested."

Fig. Column 2-6-4 (1) Taking over management resources from closed down businesses



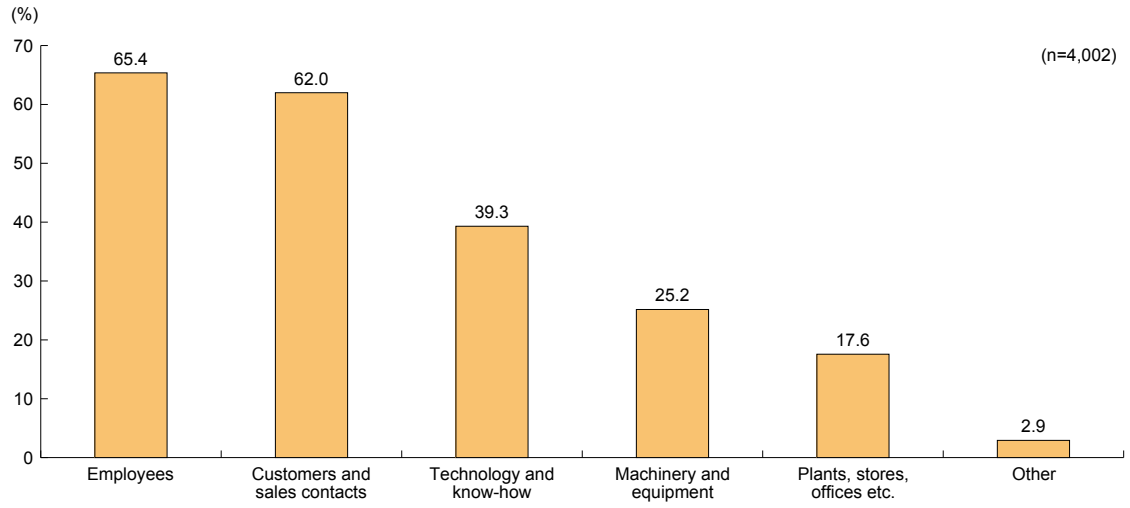
Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Next, Fig. Column 2-6-4 (2) shows which management resources are considered to be worth taking over from closed down businesses. "Employees" is the most common response with 65.4% followed by "customers and sales contacts" with 62.0%. It is inferred that many enterprises want to take over the business' workforce against the backdrop of a labor shortage.

Of the micro businesses which are thinking of closing down some business owners want to give their own businesses and assets to others when closing down[9]. It is important to match not only businesses for M&A but also management resources for businesses such as these which are going to go out of business.

9) In the *2017 White Paper on Small and Medium Enterprises*, 26.3% of small enterprise thinking of closing down answered that they wanted to pass on their business or that they would like to pass on their business to others if possible, with 16.4% of sole proprietorships having responded similarly.

Fig. Column 2-6-4 (2) Management resources considered to be worth taking over from closed down businesses



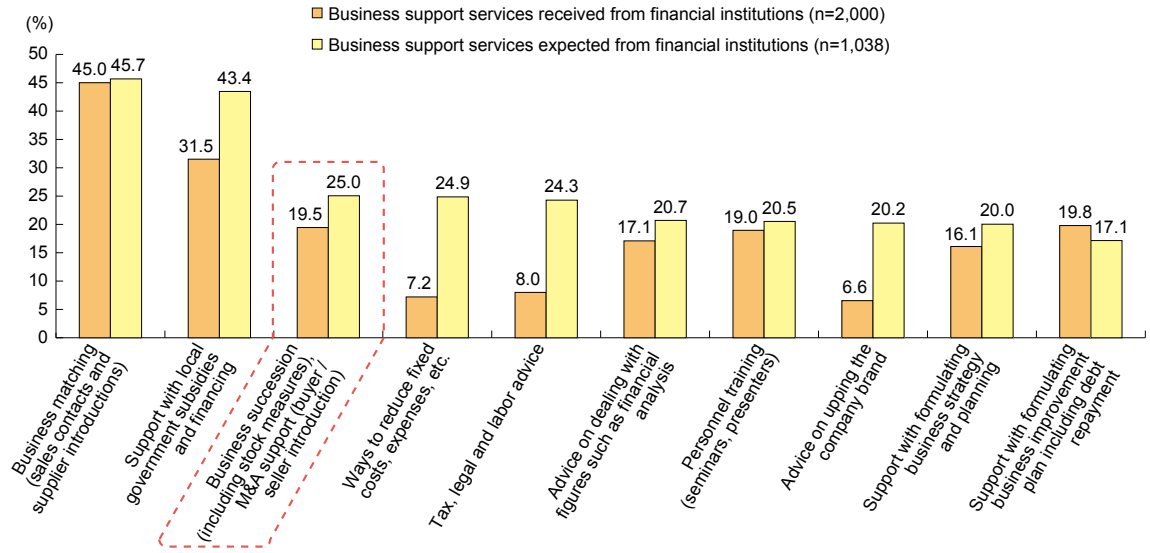
Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Column 2-6-5 Regional financial institutions that support M&A

In this section we have looked at the actual state of carrying out M&A for SMEs. We saw that financial institutions were the most common third party to introduce M&A partners. In this section we will outline the M&A support given by these financial institutions.

First, we will look at the *Company questionnaire survey - Evaluating the efforts of financial institutions*[10] about business support services received and expected from financial institutions (Fig. Column 2-6-5 (1)). The percentage of "business succession, M&A support" received from financial institutions is 19.5%, which is the third most popular response for business support services expected from financial institutions at 25.0%. From this it suggests that SMEs expect "business succession, M&A support" from financial institutions.

Fig. Column 2-6-5 (1) Business support services received and expected from financial institutions



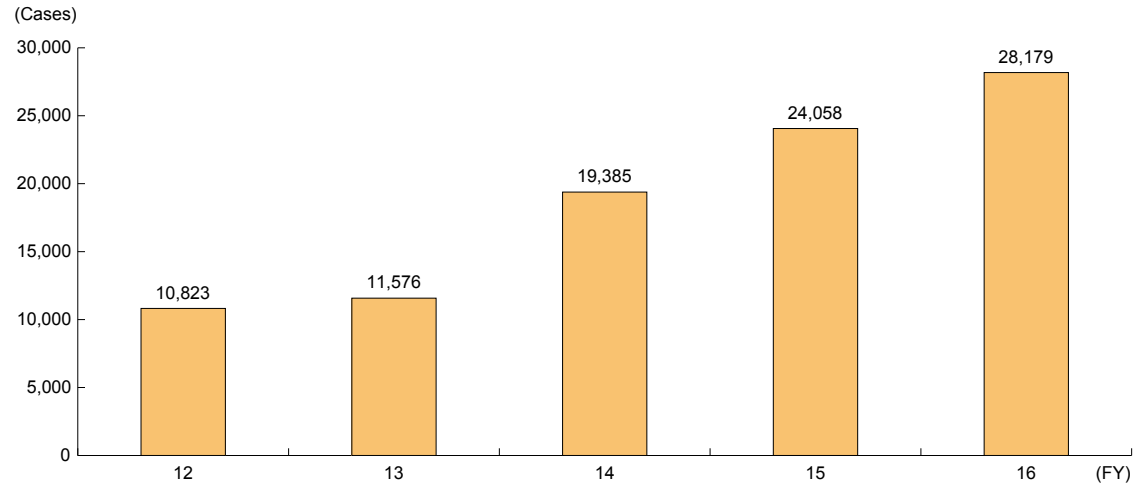
Source: NTT DATA Institute of Management Consulting, Inc., *Company questionnaire survey — Evaluating the efforts of financial institutions* (March 2016).

Notes: 1. Total does not always equal 100% as multiple responses were possible.
2. Shows the top 10 business support services expected from financial institutions.

So, just how much support is given by financial institutions? Firstly, when we look at the number of business succession consultations at regional banks, there have been more than 2.6 times the number of consultations in the most recent fiscal year 2016 compared with fiscal 2012, showing that regional banks are making an active contribution (Fig. Column 2-6-5 (2)).

10) Questionnaire survey (response rate 8.2%) conducted by NTT DATA Institute of Management Consulting, Inc. on 15,000 small enterprises with 20 or less employees in March 2016.

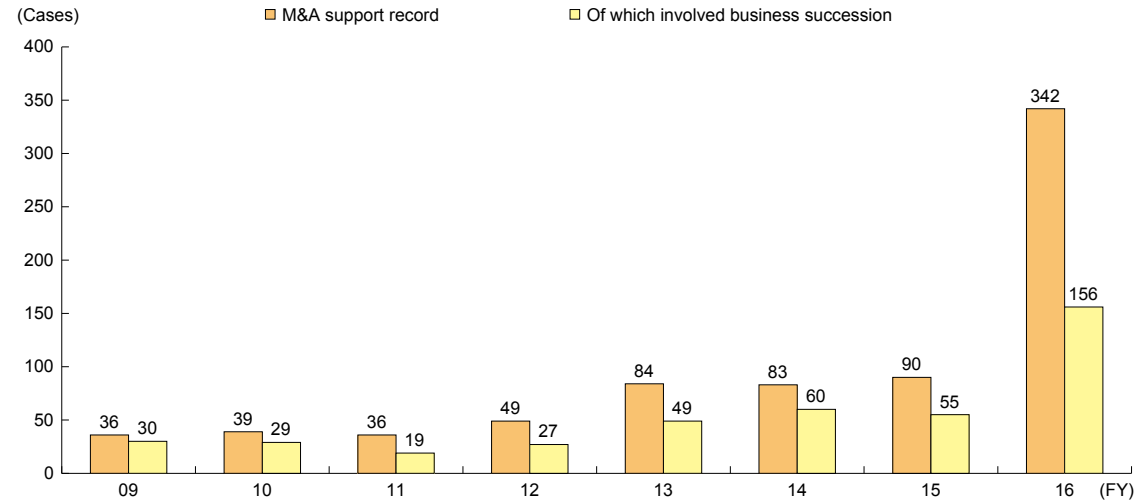
Fig. Column 2-6-5 (2) The number of business succession consultations at regional banks



Source: Regional Banks Association of Japan, *Status of initiatives on "Region-based Relationship Banking" at regional banks* (September 2017).
Note: Shows region-based relationship banking initiatives at 64 regional banks.

Next, when we look at M&A support given by the shinkin banks (regional cooperative banks), fiscal 2016 support is about 10 times more than that given in fiscal 2009 showing that shinkin banks actively support businesses (Fig. Column 2-6-5 (3)).

Fig. Column 2-6-5 (3) Shinkin bank M&A support



Source: Compiled by the SME Agency from The National Association of Shinkin Banks, *Status of initiatives on region-based relationship banking.*
Note: Shows the number of support cases of 264 nationwide shinkin banks that have led to M&A.

Case 2-6-4 Kasai Seiki Mfg. Co., Ltd.

A company which carried on the business of a company that collapsed for the lack of a successor, maintained its supply chain, and expanded its business range

Kasai Seiki Mfg. Co., Ltd. (employees: 70; capital ¥15 million), located in Suwa City, Nagano Prefecture, is a machining company that specializes in detailed, high-precision cutting and grinding of parts with outer diameter of 0.10mm, in hard materials that are difficult to machine. The company began in 1951 as a manufacturer of parts for mechanical music boxes, later changing to make its main line of business the manufacturing and sale of machined parts for electronic devices, for major electronic equipment manufacturers. Having experienced a major drop in orders after the Lehman crisis, it aimed to broaden its base of trading partners beyond electronic devices.

In that context, in 2013, the company heard from a trading partner that the company next door was considering declaring bankruptcy, due to the difficulty of finding a successor and the opacity of future prospects. That trading partner was placing orders for parts with short two-week delivery times from a division of the troubled company, and was worried about the impact on its supply chain because the part concerned was important. It asked Kasai Seiki to step in and save that business.

While the business concerned was not large in revenue terms, the company had proprietary technology in the design and assembly of car parts, and was well regarded for the level of that technology. It was doing business directly with some global car parts manufacturers. Therefore, Kasai Seiki took over five workers, the machining equipment, and the trading relationships of the other company, while drawing on the support of its certified public accountant and consultant. Talks were concluded quickly, and it was possible to meet the delivery time for the trading partner's supplies, maintaining the supply chain. In taking over the trading relationships, Kasai Seiki reviewed the terms of each relationship, and improved the profitability of the business.

The old company now operates as a branch of Kasai Seiki. It used to have only a headquarters, but it developed multiple branches, so profitability management at each branch was strengthened, under the direction of a certified public accountant and consultant well versed in management accountancy. M&A is said to require building a suitable management organization.

President Katsuji Kasai says "In contrast to electronic parts, car parts require expertise and skills in machining, as well as compliance with certification systems, so developing new trading partners from scratch takes a very long time. Taking on personnel with solid skills, and trading accounts with major clients, was a very attractive prospect. With a growing number of local companies were going bust, we want to take on businesses which are small but have superior skills and personnel, if we can get the information about them before they collapse."

Katsuji Kasai, President

Case 2-6-5 Tsuruya Chemical Industries, Ltd.

A company which vertically integrated with a struggling subcontractor

Tsuruya Chemical Industries, Ltd. (employees: 51, capital: ¥80.15 million), headquartered in Nirasaki City, Yamanashi Prefecture, manufactures and sells products such as sweeteners, food additives, health foods, and highly functional foods. It is in a wide range of operations, from manufacturing and selling its own products to OEM production for major food companies.

It used to sell mainly for business use, and as its clients said "we want you to deliver your products in stick-type individual packaging," it was subcontracting that packaging operation to a nearby company. But while that subcontractor was still trading, it was in a harsh management situation, with an excessive debt burden and other problems. Faced by client demand for individual packaging, which was growing year after year, it took time for Tsuruya to search for subcontractors, so it took the step of sounding out the president of the struggling subcontractor about taking over its business.

The result was that Tsuruya took over its subcontractor's individual packaging business about 10 years ago. Taking over the subcontractor's equipment, trade rights, and debts etc., Tsuruya also saved the jobs of all workers who wanted to remain, including part-timers. The subcontractor had not been keeping up with equipment investments, because of its harsh management situation, so its workplace was run down. Tsuruya made additional investments, such as new factory construction. With its fixed costs increased, it needed to win more orders, so it was able to make ambitious moves to go beyond its existing customer base, and develop new customers.

As a result, it expanded its range of operations to downstream subdividing work, which helped to raise its added value. Many companies in that field outsource their subdivision work, but Tsuruya gained the ability to integrate all processes from manufacturing to subdivision, which also enabled it to improve its quality control system. That end-to-end integrated system has become one of the company's greatest strengths. One major food company which was an important trading partner of the subcontractor became a trading partner for Tsuruya, and that relationship became a selling point in the company's sales.

Individual packaging work

President Shigeki Saito says "As the population keeps declining, I think it gets difficult to stay in business without having at least a certain size as a company. Besides the effect of acquiring business and carrying on the counterpart's operations, M&A has the added advantage of gaining workforce without the cost of hiring in an age of labor shortages. We want to practice M&A when opportunities arise, even if the company concerned is small."

Section 3 M&A effects and challenges

In this section we will outline the effects enterprises have seen by actually doing M&A. In addition, we will also look at the challenges of carrying out M&A.

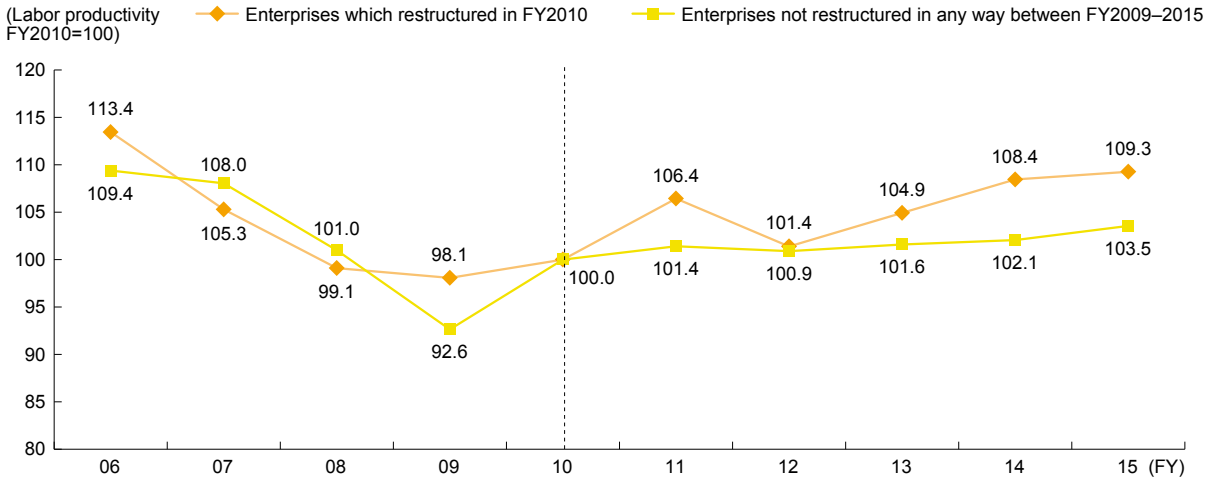
1. M&A effects

First, we will look at the effects of M&A on labor productivity. After which we will look at the concrete effects given to us from questionnaire survey results.

(1) M&A and labor productivity

We will again prepare 10 years of panel data from the METI, *Basic Survey of Japanese Business Structure and Activities* and look at changes in labor productivity before and after various enterprise restructuring over time. Firstly, Fig. 2-6-20 shows us the changes in labor productivity based on whether business restructuring in terms of "business acquisition," "absorption-type merger" and "an increase in subsidiaries by acquisition" has taken place or not in fiscal 2010. Enterprises which have implemented business restructuring are improving their labor productivity.

Fig. 2-6-20 The labor productivity of enterprises which have and have not implemented business restructuring

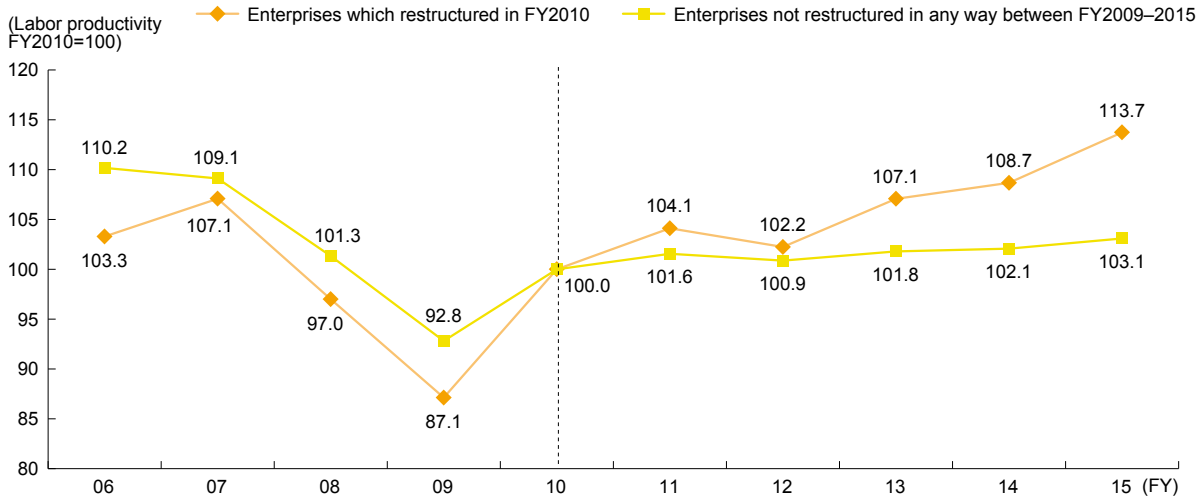


Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*
Notes: 1. Here, business restructuring refers to "business acquisition," "absorption-type merger" and "increase in subsidiaries by acquisition."
2. Data collected only from SMEs.
3. Labor productivity = added value / number of employees

From here let us take a look at the differences in the type of business restructuring that have been implemented.

Firstly, when looking at the trends in labor productivity between enterprises which have acquired businesses and enterprises which haven't, it can be seen that the labor productivity of enterprises which have acquired other businesses is improving compared to those enterprises which haven't acquired other businesses (Fig. 2-6-21).

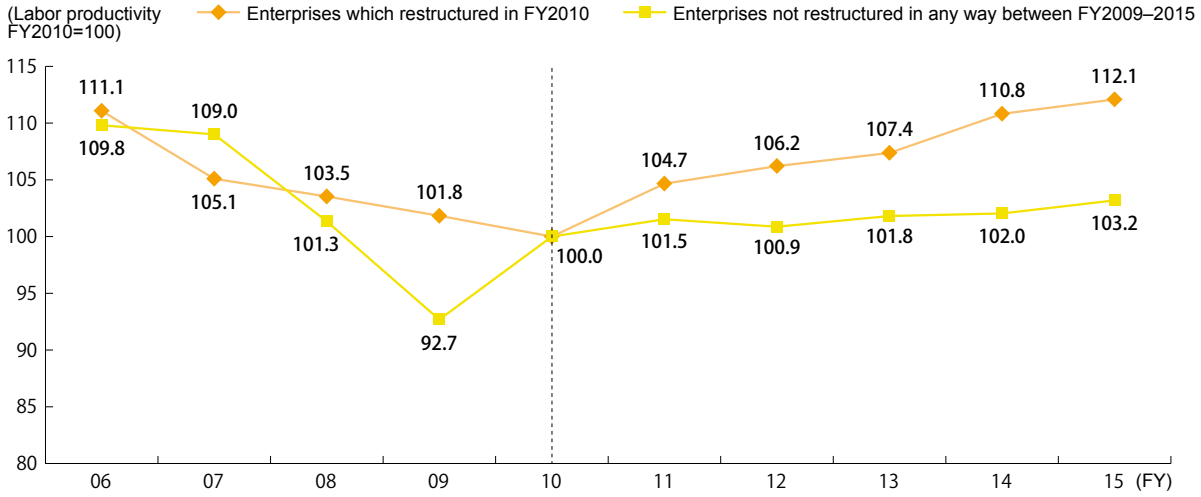
Fig. 2-6-21 The labor productivity of enterprises which have and have not acquired businesses



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*
Notes: 1. Data collected only from SMEs.
2. Labor productivity = added value / number of employees

Next, when looking at the trends in labor productivity between enterprises which have carried out absorption-type mergers and enterprises which haven't, it can be seen that here too the labor productivity of enterprises which have carried out absorption-type mergers is improving compared to those enterprises which haven't (Fig. 2-6-22).

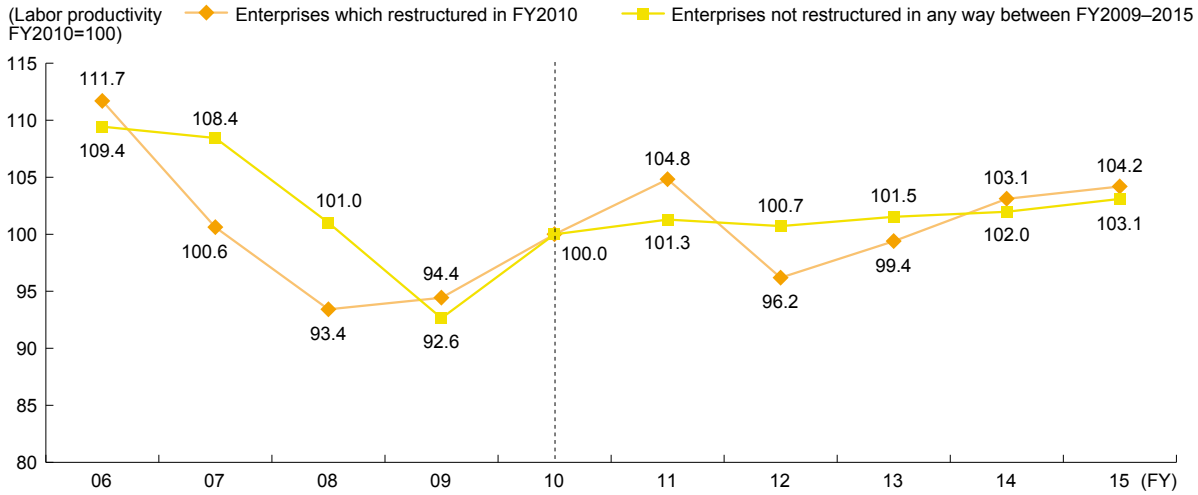
Fig. 2-6-22 The labor productivity of enterprises which have and have not carried out absorption-type mergers



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*
Notes: 1. Data collected only from SMEs.
2. Labor productivity = added value / number of employees

Next, looking at the trends in labor productivity by whether enterprises have increased subsidiaries through acquisition or not, here there is no noticeable improvement in labor productivity due to whether enterprises have increased subsidiaries through acquisition or not (Fig. 2-6-23). However, the impact on the profits of the enterprises themselves as compared with business acquisitions and absorption-type mergers is not direct but instead should be evaluated based on the integrated labor productivity with the originally acquired company.

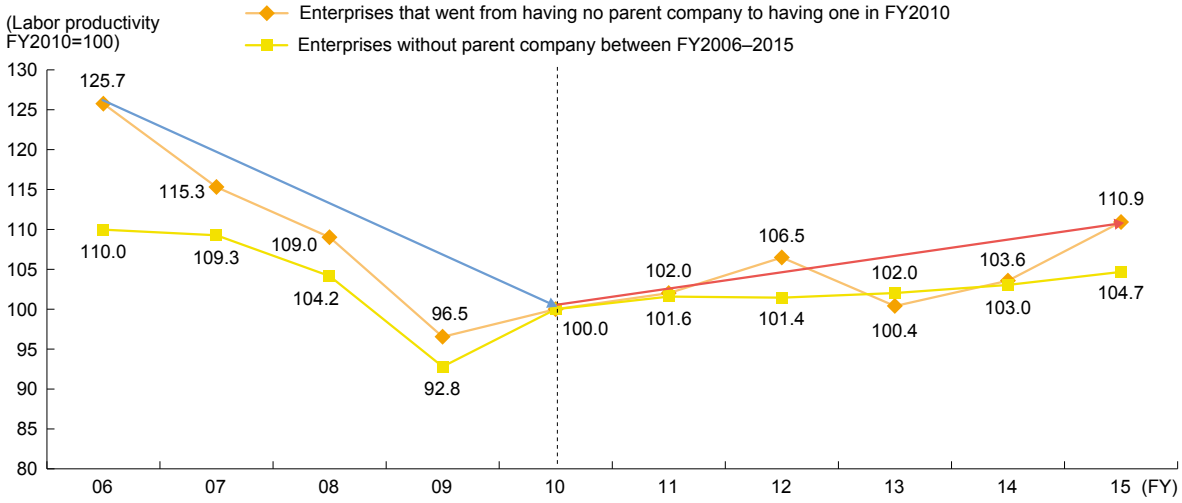
Fig. 2-6-23 Labor productivity in terms of whether or not subsidiaries increased through acquisition



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*
Notes: 1. Data collected only from SMEs.
2. Labor productivity = added value / number of employees

Let us next look at the labor productivity of the enterprises which have been acquired. Based on the panelized data, Fig. 2-6-24 shows the difference in changes of labor productivity of enterprises that went from having no parent company to having one in fiscal 2010 and enterprises without parent company between fiscal 2006 − 2015. Enterprises that became businesses with parent company in fiscal 2010 have improved labor productivity compared to those enterprises that do not have a parent company.

Fig. 2-6-24 The labor productivity of enterprises which went from having no parent company to having one



Source: Recompiled from METI, *Basic Survey of Japanese Business Structure and Activities.*
Notes: 1. Data collected only from SMEs.
2. Labor productivity = added value / number of employees

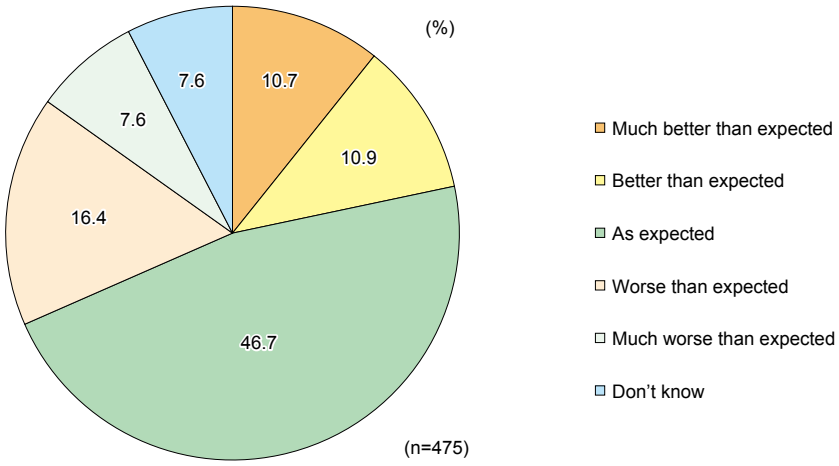
Based on the above, in the case of share transfers when the acquiring and acquired company are seen together, it is inferred that improvements in labor productivity are achieved.

(2) Effects of carrying out M&A

Below we will look at the effects after carrying out M&A using questionnaire survey results.

First of all, looking at how generally satisfied enterprises were after carrying out M&A, the percentage of respondents who answered "much better than expected," "better than expected" and "as expected" totaled 68.3%, indicating that many enterprises regard M&A as a positive undertaking (Fig. 2-6-25).

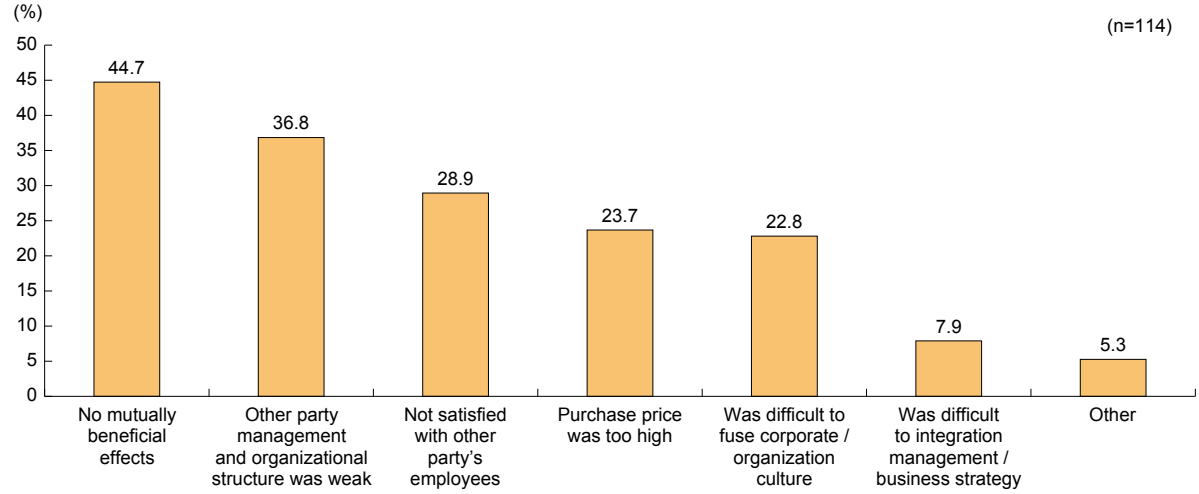
Fig. 2-6-25 General satisfaction after carrying out M&A



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.

On the other hand, for enterprises whose level of satisfaction was below expectations, the most common reason given for their lack of satisfaction, with a percentage of 44.7%, was that there are "no mutually beneficial effects" (Fig. 2-6-26). In order to bring about desired effects it is important to demonstrate synergies between the two businesses.

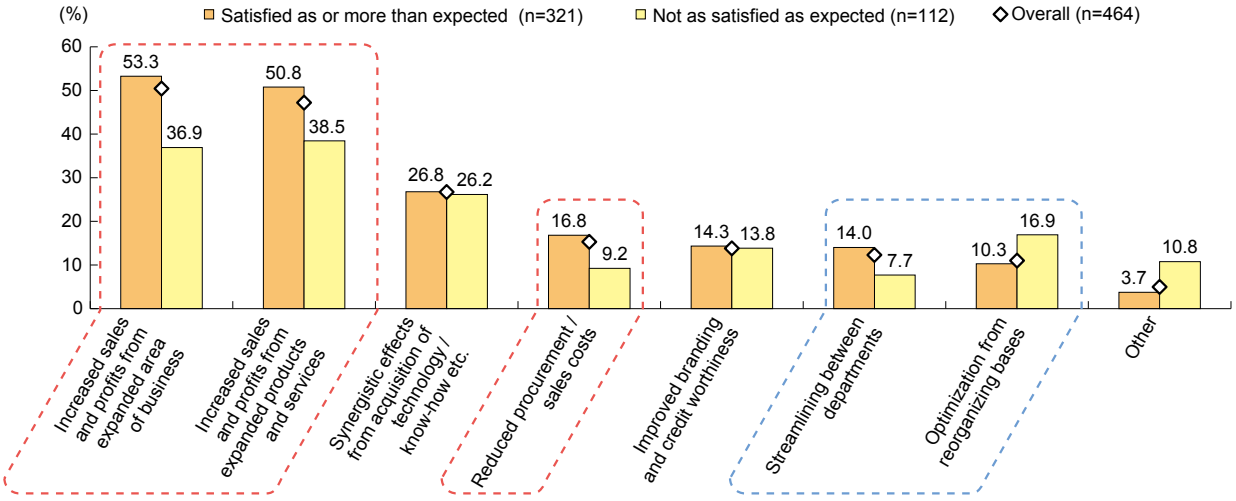
Fig. 2-6-26 Reasons for being dissatisfied with M&A



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Notes: 1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Total does not always equal 100% as multiple responses were possible.

When looking at the concrete effects of M&A based on the levels of satisfaction after carrying out M&A as shown above, enterprises which were "satisfied as or more than expected" showed a higher degree of added value through improved sales and profits such as with "increased sales and profits from expanded area of business" and "increased sales and profits from expanded products and services," as opposed to those enterprises which were "not as satisfied as expected (Fig. 2-6-27). Also, from the viewpoint of efficiency, enterprises that are "satisfied as or more than expected," have achieved "streamlining between departments," while enterprises which are "not as satisfied as expected" rate "optimization from reorganizing bases" more highly as an effect of doing M&A.

Fig. 2-6-27 Concrete effects from doing M&A based on satisfaction levels after M&A



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Notes:
1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Total does not always equal 100% as multiple responses were possible.
3. Here, "satisfied as or more than expected" refers to those who responded to their overall level of satisfaction after carrying out M&A with "much better than expected," "better than expected" or "as expected." Additionally, "not as satisfied as expected" refers to those who responded to their overall level of satisfaction after carrying out M&A with "worse than expected" or "much worse than as expected." Broadly speaking, those who answered "don't know" are included in these.

The following points are raised when we look at the concrete effects of actually carrying out such M&A (Fig. 2-6-28). In addition to improving sales and profit by expanding the scale of business and business area, we see that there are also enterprises which cite the effects of a new awareness brought about from the exchange of human resources.

Fig. 2-6-28 Effects of carrying out M&A (respondents' feedback)

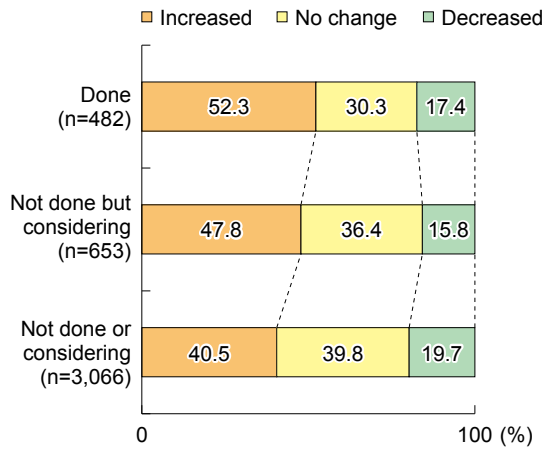
- Could increase market share. Improved power of brand and position in the industry. (Manufacturing industry, Hyogo Prefecture)
- Poor results with government service, but could expand business through merger. (Construction industry, Hokkaido)
- Increased product lineup and the way to acquire advanced technology has opened up by doing M&A. (Manufacturing industry, Tokyo)
- Able to expand business area and develop new types of business. (Food service industry, Fukuoka Prefecture)
- Profit margins improved by shifting from wholesale to direct sales. (Retail industry, Yamaguchi Prefecture)
- People were a big problem when trying to enter the manufacturing industry as a new business from the dispatch / contract industry, but we were able to secure technology and skills. (Other service industry, Nagano Prefecture)
- Improved income and helped with exchange of human resources. (Medical welfare, Hokkaido)
- Employee education is also a big problem as the fact that age = experience is not proportional because of different corporate culture, but there are many possibilities for new discoveries and goals from the exchange of human resources. (Wholesale, Saitama Prefecture)

Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

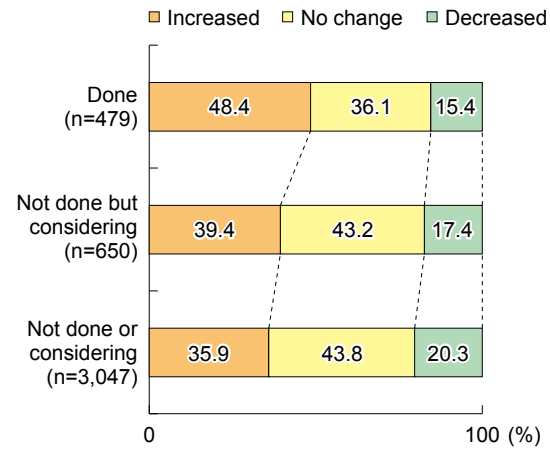
We will look at the relationship between carrying out such M&A and the results (Fig. 2-6-29). Looking at the implementation status of M&A regarding the sales (results) in the most recent three years, the percentage of respondents who answered "increased" is higher for enterprises that have "done" M&A than it is for those enterprises which have not implemented M&A. Looking next at the implementation status of M&A regarding the ordinary profit (results) in the most recent three years, here too the percentage of respondents who answered "increased" is higher for enterprises that have "done" M&A than it is for those enterprises which have not implemented M&A.

Fig. 2-6-29 M&A implementation status and performance trends

(1) Sales (results) in the most recent three years



(2) Ordinary profit (results) in the most recent three years



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Case 2-6-6 Hatsumec Group

A corporate group aiming to expand its business range and raise added value through M&A

The Hatsumec Group, of Kuwana City, Mie Prefecture, is centered on Hatsumec Inc. (employees: 90; capital: ¥10 million), which was founded in 1954 and works on a comprehensive range of surface treatments. The other two members of the three-company group are HME (employees: 100; capital: ¥10 million), which develops and manufactures equipment for electrolytic polishing, measurement, and analysis, and SSC (employees: 6; capital: ¥10 million), which plans and markets infrared sensors.

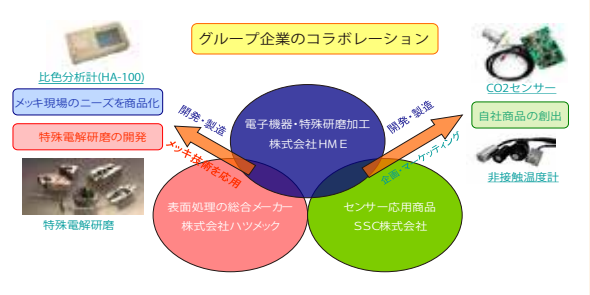
Since its foundation, the Group has mainly focused on plating parts for gas-related equipment, but as that kind of equipment has shifted from castings to stainless steel parts, it was faced with the crisis of its business vanishing. It responded by aiming to change direction, from a subcontracting-type company to an independent company branding its own products. HME was founded in 1991 as the company to handle that new business division, and it has expanded into the design, development, manufacturing, and sale of measurement and analysis instruments, and infrared sensors.

In advancing its corporate branding, the company noticed that when a large company starts a new business, it often fails to gain the anticipated effects, or its market size is too small, so the business is terminated. Learning of an online community in which engineers from large companies worked in an individual capacity to pool their skills to complete terminated business projects, the company suggested putting that effort on a business footing, and created SSC Co., Ltd. in 2000. The company planned and developed products which apply infrared sensors, which are manufactured by affiliated companies, and marketing them online as a new business field for the company.

That was an opportunity to notice that the use of external resources is effective in starting up new businesses, and the company used M&A through HME, taking on a stream of business operations that had become too difficult for large companies to continue, companies which had collapsed, and companies having difficulties finding successors. The company says it prefers business transfers because it values integration with its own corporate culture.

For example, the technology that it gained with the environmental analysis instrument business it took over in 2003 is used in the analysis devices of infrared sensors by SSC, so the M&As generate synergies. In 2007, the infrared sensor element business was transferred from a supplier. That had great advantages for both the counterpart company, which was working on selective consolidation, and for HME, which was able to obtain an element business that was essential for its development of infrared sensors. In 2014, working through an M&A mediator agency, the company took over businesses concerned with non-destructive hardness measurement instruments and acoustic diagnosis instruments, which became the leading instrument-related business in HME's electronics division.

In this way, the combination of technologies acquired through M&A and the company's own technologies generates synergies, leading to the development of new products and raising the added value of the group. In future, the company aims to set medical devices, analysis instruments, and sensors among its business themes, and to use M&A for further business expansion and group growth. President Kazuya Hattori says "If even companies without successors keep looking to the future, invest in equipment, personnel, and R&D, and are engaged in attractive business, there are some companies we would like to get into M&A with. Isn't this kind of polishing of companies important for taking on business through M&A?"



Company profile of Hatsumec Group

Kazuya Hattori, President

Case 2-6-7 Atom Corporation

A company which took M&A as its cue to expand its value chain while making the most of the trust and name recognition it had built up

Atom Corporation (employees: 30; capital ¥43 million), with headquarters located in Tokushima City, Tokushima Prefecture, is engaged in operations such as painting road markings and installing signage. It is the longest-serving company in Tokushima Prefecture in the business of painting road markings, and it has achieved continuous growth from around 1965, buoyed by rising demand for road construction. But after around 1985, public works demand from road construction and similar projects was fading, so the company was looking to develop new demand by expanding into a new business field that would be a good fit with its existing operations.

It was also engaged in road signage installation and other works related to road construction, but it was purchasing the road signs from other companies. Just as the company was getting interested in the business of manufacturing road signs, it was consulted by the owner-manager of Nakamura Koho, one of only two manufacturers of road signs in Shikoku region. Lacking a successor, the owner manager wanted to transfer the company's operations, so Atom acquired the company in 2006.

At the time of the M&A, Nakamura Koho had two divisions, for road sign manufacturing and construction, but its business performance was not good. The construction division was highly similar to Atom's own business, so the workers were transferred to Atom to raise operational efficiency. On the other hand, the road sign manufacturing division was left as a separate company under its original name, to make the most of its accumulated stock of trust and name recognition within the industry. In addition, consolidating management resources improved business performance.

This M&A established a single organization able to handle both the manufacturing and the installation of road signs, which had been Atom's aspiration. Also, Atom was able to gather and absorb information on client needs and methods for meeting those needs. There are few businesses able to offer one-stop arrangements for the manufacturing and installation of road signs, so Atom and Nakamura Koho attract queries from many clients. Sharing this kind of information between employees as a single group raises the ability of the group's companies to serve customers, because the sharing generates new solutions to meet needs, and offers hints for new areas of business.

This M&A was triggered by the owner-manager's lack of a successor, but management is now in the hands of Mr. Hisashi Usaka, as president, who worked at Nakamura Koho from before the M&A. Company president Hisao Azuma says "I think abandoning a business because of the lack of a successor is not a good thing. Rather than abandoning the company because there is no owner, wouldn't it be better to search diligently for a new owner, and make an employee who is already at the company into a manager? I want to carry on choosing the leader to whom I entrust the management of Nakamura Koho from among the company's employees. It is important to choose a leader understands the direction of management, and has a superior sense of the balance between management and the workplace."

Example of road sign installation

Case 2-6-8 Onsendojo Inc.

A company which took over and revived a business in the same field, and then advanced into other regions

Onsendojo Inc. (employees: 202; capital: ¥3.35 million), located in Tokigawa Town, Saitama Prefecture, was established in 2011, and develops and operates bathing facilities. President Toshiki Yamazaki, who was a consultant on spa facilities in a previous job, takes over the operations of bathing facilities that are in difficulties, and regenerates and operates them.

The company started by developing four branches in Saitama Prefecture, but in February 2017, it took over the operation of Tennen Onsen Yulax, a bathing facility in Mie Prefecture, from Yokkaichi Health Center. The president of the company owning Yokkaichi Health Center was connected to the company since before Yamazaki became president, and considering the tough operating position of the facility concerned, he decided it would be better to transfer the operation while it was still viable. The counterpart president carefully formed a consensus among the stakeholders, and so was able to transfer the assets and operating rights of the bathing business, together with around 70 employees, including part-timers. Apparently the facility's employees had high expectations for the merger.

The facility underwent a large-scale refurbishment, and in November 2017, it reopened as "Yokkaichi Onsen Ofuro Café Yumoriza." Taking on the operation of the facility yielded various effects for Onsendojo, besides improving business performance and keeping facility employees in their jobs. During the time the facility was closed for refurbishment, its employees were invited to the company's other branches, to join in with training and learn how they work and familiarize with new methods. That was an opportunity to learn a different corporate culture, and also led to personal growth for employees on both sides. For the company's relatively young employees, it was a chance to learn the attitude of polite and diligent customer service, while for the employees on the other side, many of whom are veteran workers, it was a chance to come into contact with Onsendojo's creative and flexible ideas.

For Onsendojo, this was the first site outside Saitama Prefecture, other than franchises, so it raised the company's name recognition outside the Prefecture. It takes time to open branches in new areas, but this way, it was possible to do so more smoothly through business transfer, including securing the personnel. The company can get a grasp of the common points and the differences between the regions, and is gathering information which will be of reference for future operations. In addition, the company also received the transfer of the Marufuku Kanko tourism business from Yokkaichi Health Center in January 2018, making a new entry into the travel and tourism business. That is expected to be a spur for the company's business diversification.

President Yamazaki says "Receiving a business with an existing track record has the advantage of a lower risk level than starting a new business. It is generally tough to revive a business that is already in difficulties, but we judged that re-branding would be able to bring in customers to some extent. From my previous job, I had seen the situation of the shortage of successors for companies smaller than ¥100 million in revenue, and people still talk to me often about business transfers. We do all we can to take on businesses which match our business vision, which is centered on bathing facilities, and we want to contribute to local value creation."

Yokkaichi Onsen Ofuro Café Yumoriza

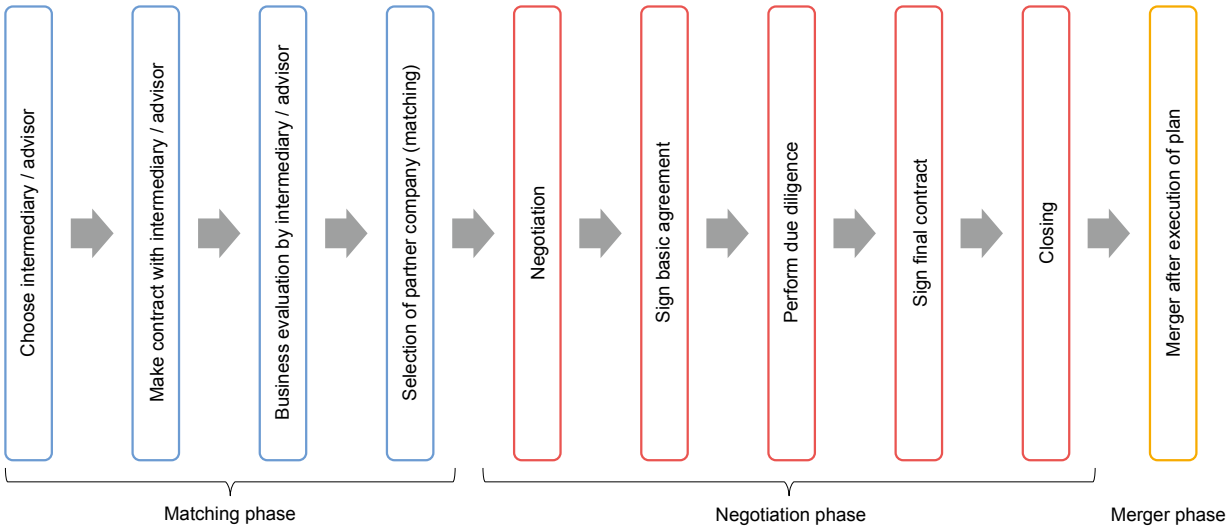
2. Challenges in carrying out M&A

In this section we will look at the challenges faced in each stage of carrying out M&A. Since it is thought that the challenges in implementing M&A differ depending on how the M&A partner was found, we shall focus our attention on these differences.

(1) M&A execution phases

Fig. 2-6-30 shows the flow of a general M&A execution with reference to the Business Succession Guidelines. In this section we will look at each stage of the M&A execution process splitting it into the separate phases of "matching phase," "negotiation phase" and "merger phase."

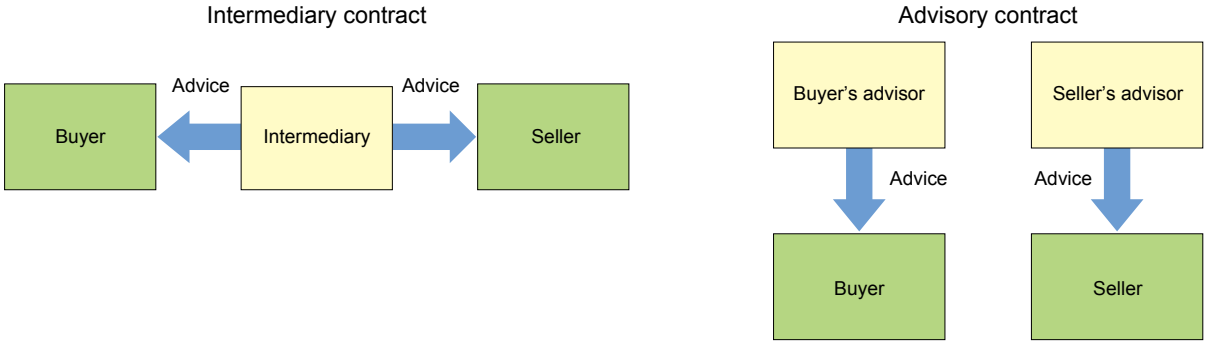
Fig. 2-6-30 The M&A execution process



Intermediaries and advisors are agencies which support SMEs in carrying out M&A. Such agencies include private M&A specialist intermediary agencies, financial institutions, professional experts etc. The type of work these intermediaries and advisors provide varies and can include matching businesses with other businesses, or more specialized work such as carrying out due diligence[11] and concluding agreements, etc. Differences exist between the two types of possible agreement, for instance, an intermediary contract is an agreement between both the buyer and the seller, whereas an advisory contract is an agreement with one of the partners, either the buyer or the seller (Fig. 2-6-31).

11) Due diligence is an appraisal of a business carried out to examine the business' assets, profitability and risk etc. Appraisal items generally consist of a financial assessment of assets, liabilities, etc., a legal survey on the articles of incorporation and details of contracts, and a business survey on the corporate organization, production and sales etc.

Fig. 2-6-31 Intermediary contract and advisory contract schemes



Intermediary contract
The intermediary has a contract between both the buyer and seller.
Negotiations tend to progress well since the intermediary stands between the two parties advising fairly and impartially.

Advisory contract
The advisor has a contract with either the buyer or the seller.
Can sign contract only for procedures required.
The contracted party's intentions can be easily conveyed.

Source: Created from SME Agency, *Business Succession Guidelines*.

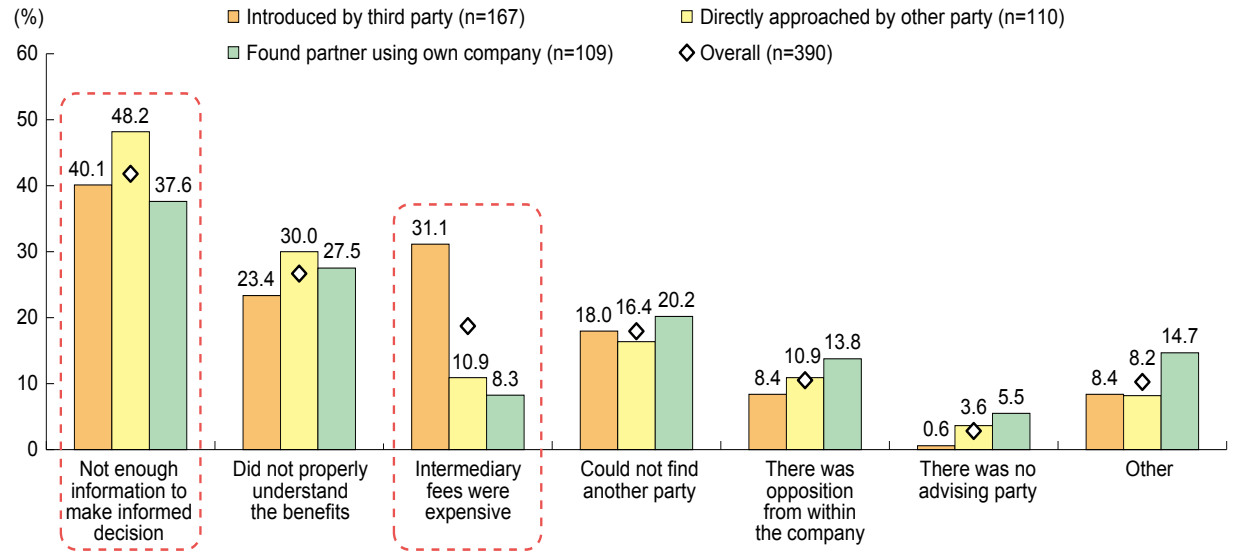
The way we interact with these intermediaries and advisors is also diverse, and the scheme adopted by enterprises differs from case to case, so let us analyze focusing on how M&A partners were found.

(2) M&A challenges in the matching phase

First of all, we will look at the problems of M&A matching. As seen in Fig. 2-6-17, all the parties involved in introducing businesses as in "introduced by a third party" accounts for 42.3% of the total for how businesses found a partner for doing M&A. Although there are many M&As carried out directly without the need for third parties, smooth business matching via a third party is important for promoting M&A in the future.

Fig. 2-6-32 shows the challenges of M&A matching based on how the M&A partner was found. The most common response across the groups was that there was "not enough information to make informed decision" especially for those enterprises which carried out M&A on the basis of being "directly approached by other party." On the other hand, for those who responded that the M&A partner was "introduced by third party," a greater proportion responded that "intermediary fees were expensive" in comparison with the other groups. Matching and negotiation can well be facilitated by third parties however some buyers cite excessive fees as a problem.

Fig. 2-6-32 Challenges in the M&A matching phase based on how the M&A partner was found



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Notes: 1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Total does not always equal 100% as multiple responses were possible.

Regarding the lack of information, many SMEs are unlisted companies and often do not disclose corporate information, unlike large enterprises that are listed companies and whose information is disclosed. Therefore it is difficult for buyers to obtain detailed corporate information on SMEs which are trying to sell their business. In addition, it is conceivable that some enterprises say that decisions cannot be made with just the non-naming information[12] disclosed before the confidentiality agreement is concluded. For these companies it is important that surrounding support organizations such as financial institutions and professional experts advise as appropriate. For which reason also, it can be said that it is necessary for relevant support organizations to deepen their understanding about mergers and acquisitions.

Brokerage fees also depend not only on the contract relationship, such as intermediary or advisory, but also on the scale of the case and the remuneration system (retainer, intermediate fees, completion bonuses, etc.). Additionally, as M&A intermediary work is carried out to the same extent regardless of the size of the project, many specialized intermediary firms also set minimum fees. In recent years M&A business matching has been taking place on the internet creating an environment where M&A can be implemented even by micro businesses with matching done at low cost.

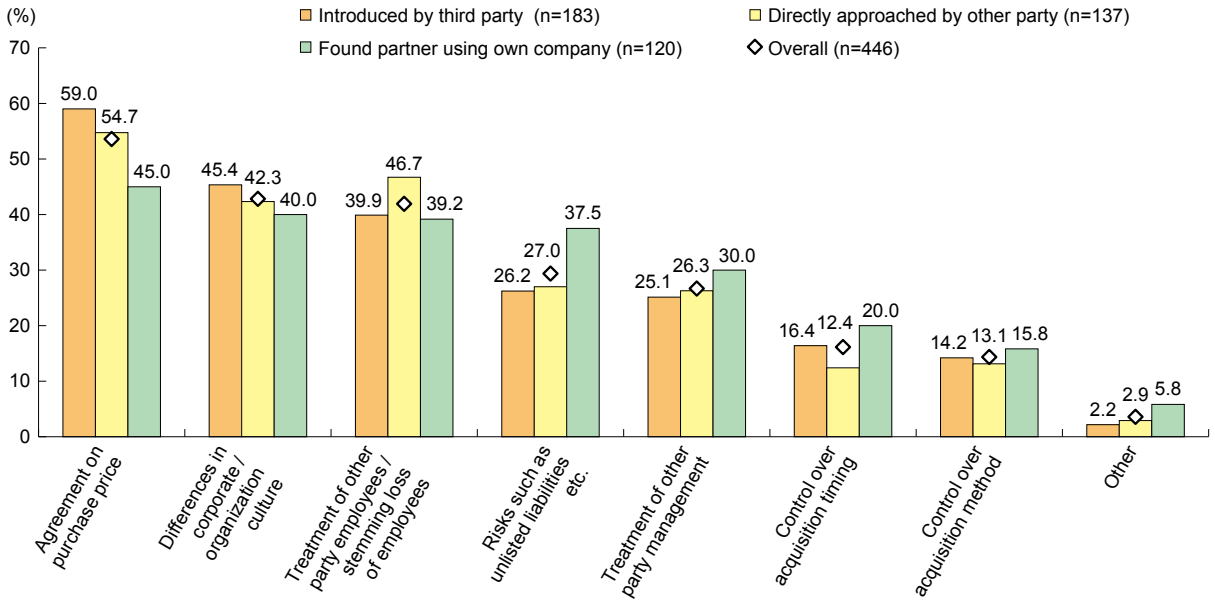
In any case, support from third parties such as financial institutions, specialist intermediary agencies and professional specialists is important in order to promote M&A between businesses. As well as deepening their understanding of M&A it is expected that support agencies will respond to various needs by collaborating with each other to complement their expertise and work towards matching businesses[13].

(3) M&A challenges in the negotiating phase

Next, we will look at the M&A challenges faced in the negotiating phase based on how M&A partners were found (Fig. 2-6-33). The most common response across the groups was that there was “agreement on purchase price” especially for those enterprises which responded that the M&A partner was “introduced by third party” and which carried out M&A on the basis of being “directly approached by other party.” On the other hand, those who responded “found partner using own company ” flagged “risks such as unlisted liabilities etc.” more so than the other groups.

12) Non-naming information is company information that summarizes the business easily without specifying the actual company name.
13) As part of these efforts, the SME Agency has since 2017 created a network (the business succession network) to support regional business succession in collaboration with local government by establishing local support organizations in each prefecture with the intention to strengthen the business succession support system in each region.

Fig. 2-6-33 Challenges in the M&A negotiating phase based on how the M&A partner was found



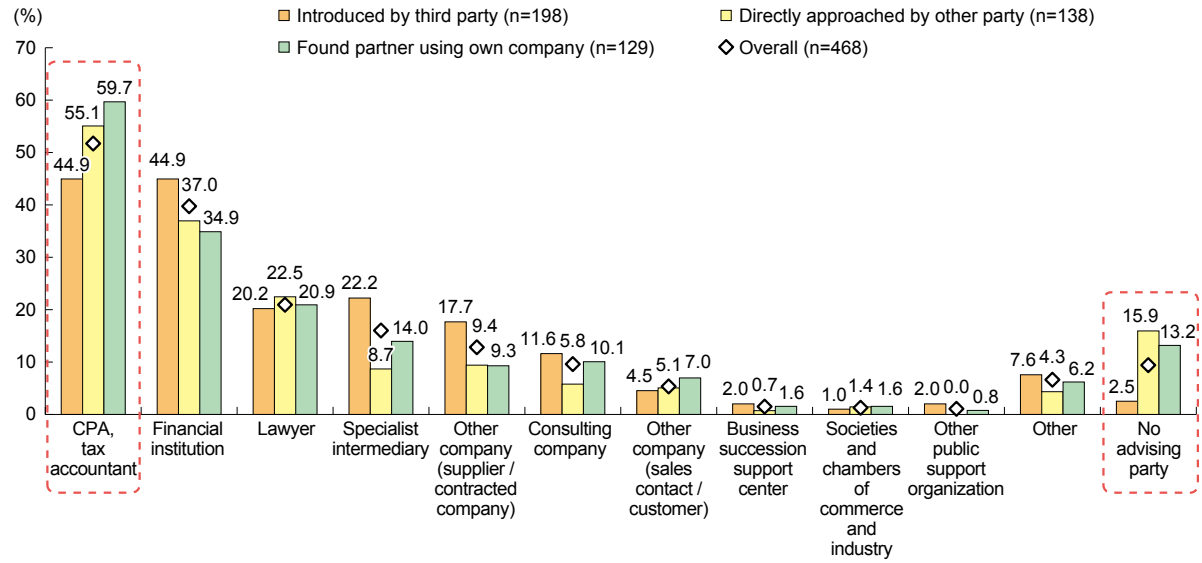
Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Notes: 1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Total does not always equal 100% as multiple responses were possible.

The existence of advising parties is considered important for solving these problems. Fig. 2-6-34 shows the advising parties used in the M&A negotiating phase based on how M&A partners were found. For those who responded "introduced by third party," according to Fig. 2-6-17 the intermediary third parties of "financial institution," "specialist intermediary" and "other company (supplier / contracted company)" ranked highest and tend to be used as advisory partners during the negotiation phase. Furthermore, enterprises that responded that they were "directly approached by other party" and "found partner using own company" tend to consult with "certified public accountants, tax accountants." On the other hand however, the proportion of enterprises that responded "no advising party" is also high. In the case of directly negotiated mergers and acquisitions we can assume that the fact there is no advising party is also a problem.

Even during the negotiation phase, the roles of surrounding support organizations such as professional experts and financial institutions including "certified public accountant, tax accountant" and "lawyer" can be said to be important.

Fig. 2-6-34 Advising parties in the M&A negotiating phase based on how the M&A partner was found

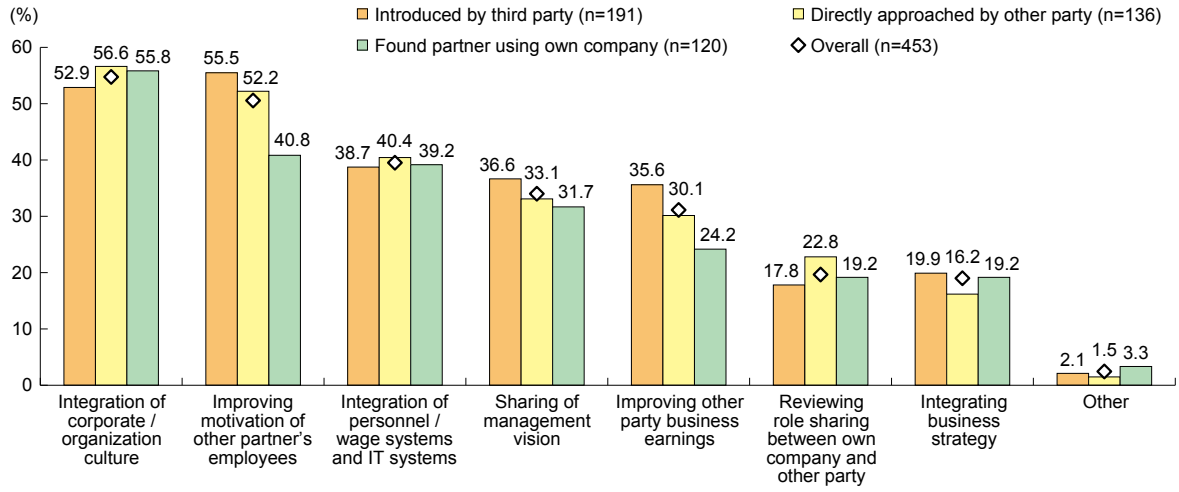


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Notes: 1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Total does not always equal 100% as multiple responses were possible.

(4) Challenges in the integration process after M&A

We will look at the challenges involved with the integration process after M&A based on how M&A partners were found (Fig. 2-6-35). "Integration of corporate / organization culture" is the most common response followed by "improving motivation of other partner's employees." Enterprises which "found partner using own company" however, rated "improving motivation of other partner's employees" lower than the other two groups. For the employees of the other party, it is inferred that any lack of motivation is suppressed from the feeling that the company was sold due to the opportunity that the company was actually bought.

Fig. 2-6-35 Challenges in the integration process after M&A based on how M&A partners were found



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Notes: 1. For those respondents who have carried out M&A more than once they responded with regards to their most recent M&A.
2. Total does not always equal 100% as multiple responses were possible.

With respect to the challenges of the actual implementation of such M&A, looking at concrete feedback, the following points have been raised which suggests that enterprises are struggling to integrate corporate and organizational culture (Fig. 2-6-36). That it takes time to integrate management is a commonly shared view.

Fig. 2-6-36 Challenges after carrying out M&A (respondents' feedback)

- Many acquisitions are relatively small in terms of management. I would like financial institutions to focus more on M&A brokerage. There is a limit to what you can do to find an M&A business by yourself. (Retail industry, Kagoshima Prefecture)
- Although we employed staff to handle accounting it was difficult to maintain motivation because of the gap between employees of the other party which resulted in replacing staff many times. (Other service industry, Osaka Prefecture)
- Changing their way of doing business did not progress well. But after having staff seen over for half a year and making efforts for new employees to fit in, I feel that the working relationships are now going well. (Lifestyle-related services industry, entertainment industry, Aichi Prefecture)
- Integrating corporate culture was more difficult than I had imagined. (Manufacturing industry, Kanagawa Prefecture)
- It takes time for enterprises with different corporate cultures to merge and both parties need to be prepared (e.g. motivation of employees). (Construction industry, Tottori Prefecture)
- It took time to realize the benefits and positive effects, and it took time to change the pay system too. (Manufacturing industry, Tokyo)
- On the whole there are differences in how employees are treated, such as wages, vacation, welfare benefits etc. It also takes time to convey the management philosophy. (Linen supply industry, Gifu Prefecture)

Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

3. Summary

In this section we have looked at the effects and challenges of carrying out M&A.

Regarding the effects of M&A, it is found that labor productivity is improved in enterprises which carry out M&A when looking at the trends in labor productivity before and after the merger or acquisition. In improving labor productivity, it is inferred that more value is added through expanding sales and profits, such as with expanding areas of business and expanding products and services. In order to improve such added value it is important to demonstrate the synergistic effects between the businesses of both the buyer and the seller.

We looked at the challenges in implementing M&A by breaking down the process into three stages: the matching phase, negotiation phase and merger phase. Although issues can be seen throughout any stage of the process it is essential to facilitate the matching of buyers and sellers in order to increase the number of M&A. Challenges involved when matching businesses include the lack of information when making decisions and the cost of brokerage fees.

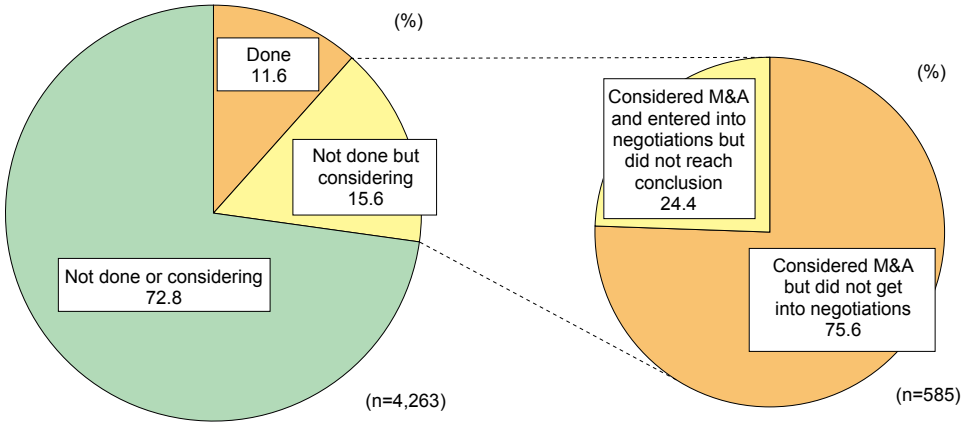
Because of this, support from agencies such as financial institutions, specialist intermediaries and professional experts is important. As well as deepening their understanding of M&A it is expected that these support agencies will respond to various needs by collaborating with each other to complement their expertise and work towards matching businesses.

Column 2-6-6 The state of enterprises that considered but did not do M&A

In this section we have looked at the issues in carrying out M&A for enterprises that have actually done M&A. Below we will look at the state of enterprises that have considered M&A but which have not actually done M&A.

First of all, looking at the consideration and negotiation situation of those enterprises which have considered M&A in the past, the proportion of those who entered into negotiations was only 24.4%, most of whom did not reach serious negotiations (Fig. Column 2-6-6 (1)).

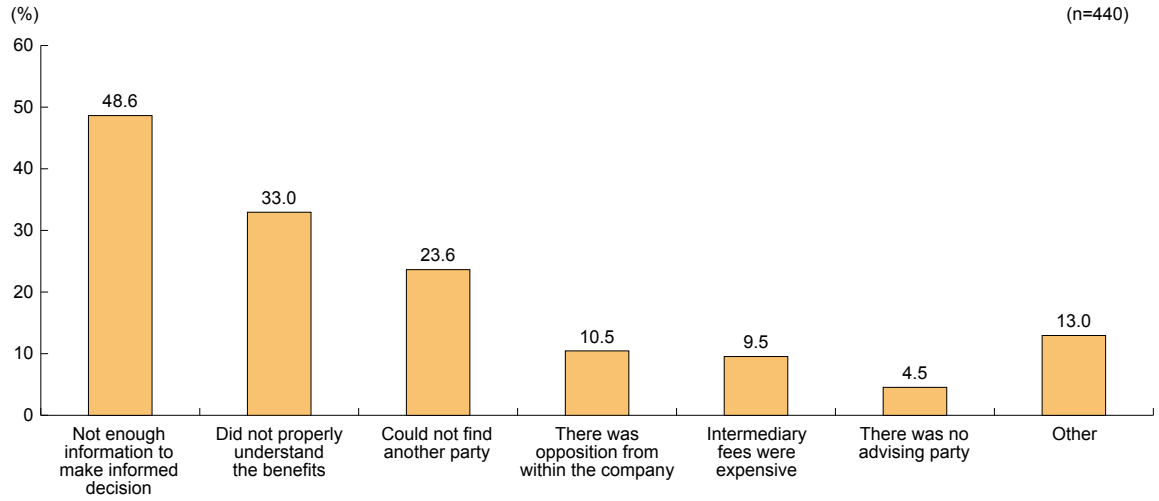
Fig. Column 2-6-6 (1) The M&A consideration and negotiation situation



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

The reasons why enterprises did not get into negotiations even though they had considered M&A were for the most part because there was "not enough information to make informed decision" or that they "did not properly understand the benefits," followed by "could not find another party" (Fig. Column 2-6-6 (2)). The points that there was "not enough information to make informed decision" and "did not properly understand the benefits" are problems shared by enterprises carrying out M&A during the matching phase. This facilitating of data gathering during the matching phase is an important issue for the promotion of doing M&A.

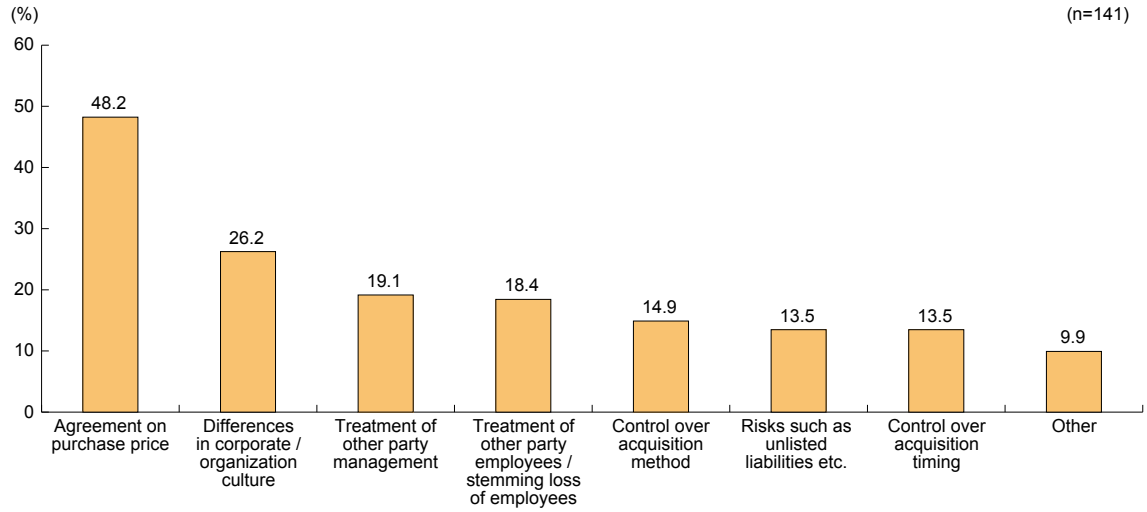
Fig. Column 2-6-6 (2) The reasons why enterprises considered M&A but did not get into negotiations



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

On the other hand, the reasons given why enterprises entered into negotiations but did not reach a conclusion are for the most part "agreement on purchase price" followed by concerns surrounding the integration of the business with "differences in corporate / organization culture." These points are also problems shared with enterprises during the negotiation phase when carrying out M&A.

Fig. Column 2-6-6 (3) The reasons why enterprises entered into negotiations but did not reach a conclusion



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Finally, Fig. Column 2-6-6 (4) shows us some of the responses with regards to the measures necessary for the promotion of M&A for those enterprises that considered but did not do M&A. Points raised include matching information websites and uncovering potential needs, from which we can say that it is important to discover potential sellers and their matching needs.

Fig. Column 2-6-6 (4) The measures necessary for the promotion of M&A for those enterprises that considered but did not do M&A (respondents' feedback)

- It would be good if there were some matching information sites available. (Other service industry, Tokyo)
- I'd like to be able to send information to sell the business without having the business close down because of it. (Manufacturing industry, Ishikawa Prefecture)
- I want the potential needs listed up. (Other service industry, Hiroshima Prefecture)
- Still not enough understanding about M&A for SMEs. I think the challenge is how to convey the idea of M&A. (Recycling industry, Chiba Prefecture)
- Improve fund raising. (Transport industry, Hokkaido)
- Tax breaks when acquiring real estate and/or additional investments at time of M&A and better subsidies for recruitment (during handover) (Accommodations industry, Shizuoka Prefecture)
- Tax breaks on share transfers. (Consulting industry, Tokyo)

Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Case 2-6-9 The Minato Bank, Ltd.

A financial institution which works with a chamber of commerce and industry to support M&A matching

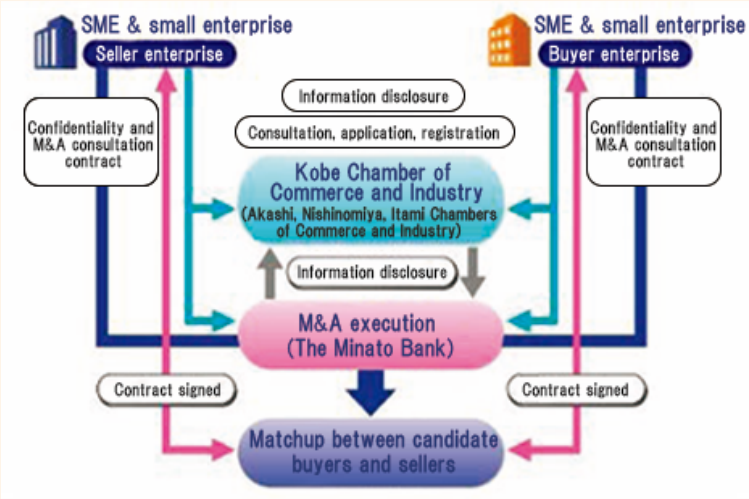
The Minato Bank, Ltd., which has its main branch located in Kobe City, Hyogo Prefecture, is working with Kobe Chamber of Commerce and Industry to build a system to support SMEs and small businesses in M&A activities.

The bank started M&A operations in April 2001, to support customers who are considering M&A for business continuation or expansion. At that time, Kobe Chamber of Commerce and Industry also had its own independent M&A introduction system, but the starting fees etc. paid to intermediary agencies proved to be a bottleneck, and some aspects of the system were rather difficult for small businesses to use.

That situation led the bank and the Kobe Chamber of Commerce and Industry to collaborate to start the Hyogo-style M&A Support System in November 2003. The system consolidates information at the bank about buyer and seller companies which had consulted the Chamber of Commerce and Industry. As some companies felt that it was difficult to consult their main bank, this system allows companies to use the Chamber of Commerce and Industry as their contact point for wide-ranging consultations. The bank matches information gathered from the Chamber of Commerce and Industry in that way against information on counterparts from its own information. In order to be able to support small businesses as well, the bank says that "starting fees are not required, in principle," and the fee on a successful agreement is determined flexibly, to match the size of the project. This is a pioneering example of a support system in Japan that can assist small businesses in M&A through partnership between a chamber of commerce and industry and a bank. By the end of March 2018, the bank had achieved more than 75 M&A agreements since the start, of which 15 were introductions from Kobe Chamber of Commerce and Industry.

Recently, with the rising age of managers becoming a worsening problem, and business continuation getting increasingly challenging, the bank has been expanding its M&A support. In partnership with local chambers of commerce and industry, it has organized seminars on business continuation and M&A around the prefecture, and it is strengthening its efforts to find potential subjects. Given the bank's nature as a financial institution, it is able to carry on its relationships with companies after M&A, so it emphasizes the Post Merger Integration (PMI) process, which raises post-M&A enterprise value, as it strengthens the support system.

Bank deputy director-general Nakagawa says "The difficulty of finding a successor are the trigger for considering M&A in many cases. Even in local Hyogo Prefecture, the number of places of business continues to decline, and I think the businesses being abandoned due to lack of successors are a major factor in the background. As a financial institution with roots in the community, we want to go on carefully looking for potential M&A cases, in partnership with local chambers of commerce and industry, and to diligently pursue sales activities that will lead to solutions for our customers' problems."



Hyogo-style M&A Support System

Case 2-6-10 Tranbi Inc.

The company which manages the Tranbi M&A matching site

Tranbi Inc. (employees: 10; capital: ¥20 million), with headquarters located in Minato City, Tokyo, is the operator of the Tranbi M&A matching service site, which started in 2011.

The inspiration for this service was that the trading partners of ASK Industries Co., Ltd. (located in Nagano City, Nagano Prefecture), which President Satoshi Takahashi inherited from this father, were going out of business at a rate of three or four a year. Some of them were superior companies with unique skills, but they were small, with revenues of ¥100 million or less, so it was difficult for them to get handled by M&A agencies. That prompted the start of the Tranbi M&A matching service on the Internet in 2011, as one division of ASK Industries.

The biggest feature of the service is its low cost. It is entirely free of charge for the seller (conditional on making a report and cooperating with an agreement interview within one month of a sale agreement), and the only fee for the buyer is 3% of the agreement value when the agreement is signed. Some agreements are only valued at ¥1, so there is no fee. Businesses for sale are openly displayed online, so that users can do their own matching, which saves time and cost. After matching through Tranbi, users communicate directly, so the process to reach an agreement makes extraordinarily fast progress. For simple business models, like a restaurant or a Web-based service, it can take as little as three days to reach an agreement in some cases. On the other hand, for cases which require due diligence, such as businesses with tangible fixed assets, Tranbi has a system for introducing experts with proven track records in M&A assistance, and it follows the process to completion.

Many of the cases which reach completion are small scale. Also, many of the sold businesses belonged to individual owner-operators, such as tutoring businesses run by one person as a side business, or web-based app businesses run by individual engineers. Businesses which are overburdened by debt and appear tough to sell from the financial statements may be rated as essential elements of the buyer's growth strategy, or there may be a rush of requests from buyers in different business fields, which would have been difficult buyers for an intermediary to find, so there are many matching cases that would have been hard to imagine from conventional theory. More than financial information and other quantitative data, the information posted on Tranbi emphasizes qualitative information, about the business model, customers, service content, and other content that conveys the seller's ideas. That approach makes it easier for the buyer to get a picture of what synergies the acquisition might generate.

At first, President Takahashi thought it would be difficult for Tranbi to succeed as an independent business, but there was more need than he anticipated, and he spun Tranbi off as an independent company in 2016. Recently, the company has being stepping up collaboration with regional financial institutions, to make a stronger approach in regions where many small businesses are collapsing. Tranbi also has cooperative relationships with M&A agencies, and if those agencies see a case that would be difficult for them to handle, they have started advising sellers to "list on Tranbi and ask the world" in some cases.

President Takahashi says "Besides sellers and buyers, I want to make this a platform for all the players who are involved with SMEs, like financial institutions, credit unions and cooperatives, agency companies, and experts and boost up the whole industry."

Tranbi website

M&A case information page

Case 2-6-11 Taishin Pharmacy, Co., Ltd.

A company which serves as a safety net for small dispensing pharmacies worried about lacking successors

Taishin Pharmacy (employees: 330; capital: ¥35 million), with its headquarters located in Kita-Kyushu City, Fukuoka Prefecture, operates 78 dispensing pharmacies and drugstores mainly in Kita-Kyushu City.

When President Kisuke Yoshimura first took on the management of the company, it was a small operation, with 10 local pharmacies and drugstores, it was losing money, its workforce was aging, and its management position was harsh. While advancing various management reforms, he expanded the company's number of branches through M&A of small dispensing pharmacies, as a growth measure. Having experienced buyouts from drugstore chains, and felt the intensity of cost competition with big companies, he narrowed his targets to small dispensing pharmacies for specialized M&A. Including other than M&A, the company has been adding branches at a double digit pace per year.

Most of the sellers were pharmacists who had started independent businesses around 30 years earlier, when the division of roles in medical care was advancing, and at around age 60, were thinking about business continuation. President Yoshimura has visited the owners of such dispensing pharmacies and other related people, straightforwardly saying "we want to expand our dispensing pharmacy business, centered here in Kita-Kyushu," talking so that the counterpart recognizes his company as a candidate for transferring their business to. As a result, he received introductions through the personal contacts he had diligently built up, and increasingly commonly gets direct inquiries from owners.

M&A counterparts are mainly in Kita-Kyushu, but recent years the company branched out into the capital region and Kagoshima. In expanding into remote areas, the company limits itself to the range that it can reach by public transport before stores open at 9am, thinking of emergency situations in which problems occur at distant stores.

The dispensing pharmacies transferred to the company by M&A are small, with most being just a single branch. After M&A, store operation basically follows the previous practice that has been rooted in the community and the public, but productivity is enhanced by making procurement and administrative operations more efficient. The company has built a system so that each branch is networked via IT, and procurement, inventory, and sales flows are centrally managed at headquarters. Procurement negotiations with wholesalers are also centralized at headquarters, to reduce administrative burdens on each store and focus on customer service.

Recently, the shortage of pharmacists to work in stores has become an increasingly severe problem. Some owners are considering selling though M&A because they can't find pharmacists, and increasing numbers of them have high expectations of Taishin's ability to provide personnel. Therefore, the company is stepping up its hiring of intern and new graduate pharmacists, centering on universities within Fukuoka Prefecture. President Yoshimura says "I want to go on hiring and developing pharmacist personnel, while expanding by returning a fixed proportion of our profits to M&A."

The outside of a dispensing pharmacy

Case 2-6-12 Shimakyu Co., Ltd.

A company that makes ambitious use of M&A to draw out synergy effects and raise added value

Shimakyu Co., Ltd. (employees: 216; capital: ¥100 million), located in Nagaoka City, Niigata Prefecture, is founded in 1936, which manufactures and sells industrial high pressure gas and dry ice, and is a trading company handling welding materials, industrial devices, casting materials, and environmental and medical devices.

Aiming to raise added value as population declines in region and the number of manufacturing and other companies as potential clients falls, the company combines a wide range of goods and business operations, aiming to become a "one-stop service provider for factories," ready to meet the full range of customer needs. It emphasizes M&A as one of the most powerful means to that end. The company's M&A is characterized by its "cross-selling strategy" for the purpose of adding new goods and customers (users), and expanding its sales area. Other than the goods handled, Shimakyu emphasizes the customer segments that each company has. When considering an M&A idea, the company thoroughly investigates the counterpart's trading partners, while also using resources such as credit information. In M&A within the same business field, new customers will be gained, but some will leave by joining a specific group, so it is not a case of 1+1=2. On the other hand, M&A between different business fields leads to acquisition of new customer segments, as well as expanding the products handled.

From the mid-'90s to the present, Shimakyu has acquired 10 companies, including Touyo Screw Co., Ltd. and Harigai Kouzai. Last year, in back-to-back M&A projects, it made Onishi (boiler servicing, etc.) and Niigata Setsubi Co., Ltd. (plant operations) into wholly-owned subsidiaries. These M&As enabled Shimakyu to get involved end-to-end in boilers and plant equipment from sales to maintenance, achieving increased added value.

Shimakyu's business center

To bring out synergies through the integration process after M&A, it is important to raise motivation in the workforce of the acquired company, by raising wages and expanding welfare benefits etc. Management of the state of attainment of set targets runs alongside correction of personnel assessment criteria etc. Also, sales are made directly from each company that has been brought under the Group umbrella, to encourage management efforts by each company.

President Takaaki Shimada says "After M&A, additional investments in equipment and personnel are necessary so often that they are basically inevitable. We have to take those costs and risks into account when deciding the purchase price and other terms. To make M&A succeed, it is essential to visualize the counterpart company's management and raise their management level. We gradually improve management, to gently check and raise the management level in the acquired company, so that the level of management of monthly accounts etc. matches our own. Each company has its own different corporate culture and style, so isn't it important to adapt while changing how it spends time?" He is describing techniques, based on long years of experience, for overcoming M&A challenges.

Takaaki Shimada, President

Section 4 M&A as a future growth strategy

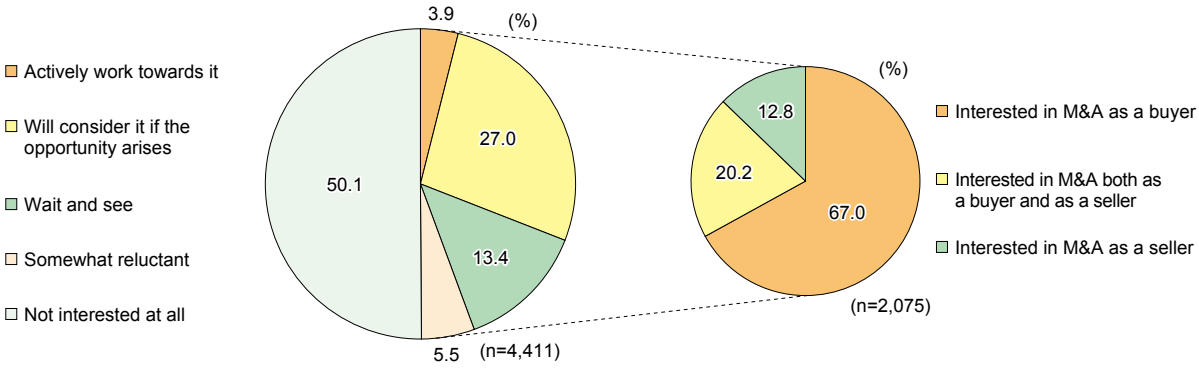
As we have seen in the previous section, although there are still not that many enterprises that have actually carried out M&A, in recent years there has been an increase in enterprises, even SMEs, which do M&A. Furthermore, it was seen that enterprises that do M&A are improving their labor productivity through increased sales etc.

In this section we will look at future intentions to carry out M&A. With regards to M&A as a strategy, it could be as a buyer or as a seller positioning the business within another company or intentionally splitting part of the business. We will outline the situation and issues surrounding M&A both from the buyer's and seller's perspective, and analyze the measures needed to promote M&A in the future.

1. Intentions to carry out M&A as a growth strategy

Looking at the utilization of M&A for the future, although there are some differences it seems that about half of all enterprises surveyed are interested in M&A in some way or another (Fig. 2-6-37). In particular, the percentage of respondents that answered "actively work towards it" or "will consider it if the opportunity arises" accounts for 30% of all responses. Also, in terms of whether they are interested as buyers or sellers, 67.0% are "interested in M&A as a buyer" and 20.2% are "interested in M&A both as a buyer and as a seller." Taken together you can see that many enterprises are interested in M&A as a buyer.

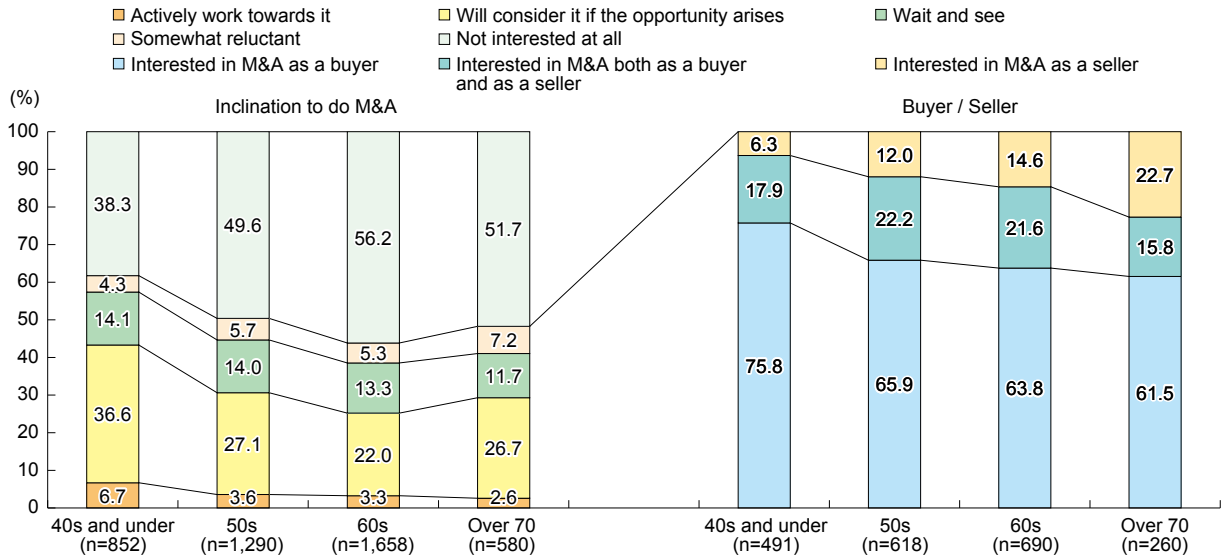
Fig. 2-6-37 Future intentions to carry out M&A



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

Furthermore, looking at the details by age of business owner, it can be seen that younger business owners at their 40s and under are more interested in utilizing M&A in the future (Fig. 2-6-38). In terms of whether business owners are interested as buyers or sellers, the younger business owners tend to be more "interested in M&A as a buyer" while the older business owners tend to be more "interested in M&A as a seller."

Fig. 2-6-38 Future intentions to carry out M&A based on age of business owner

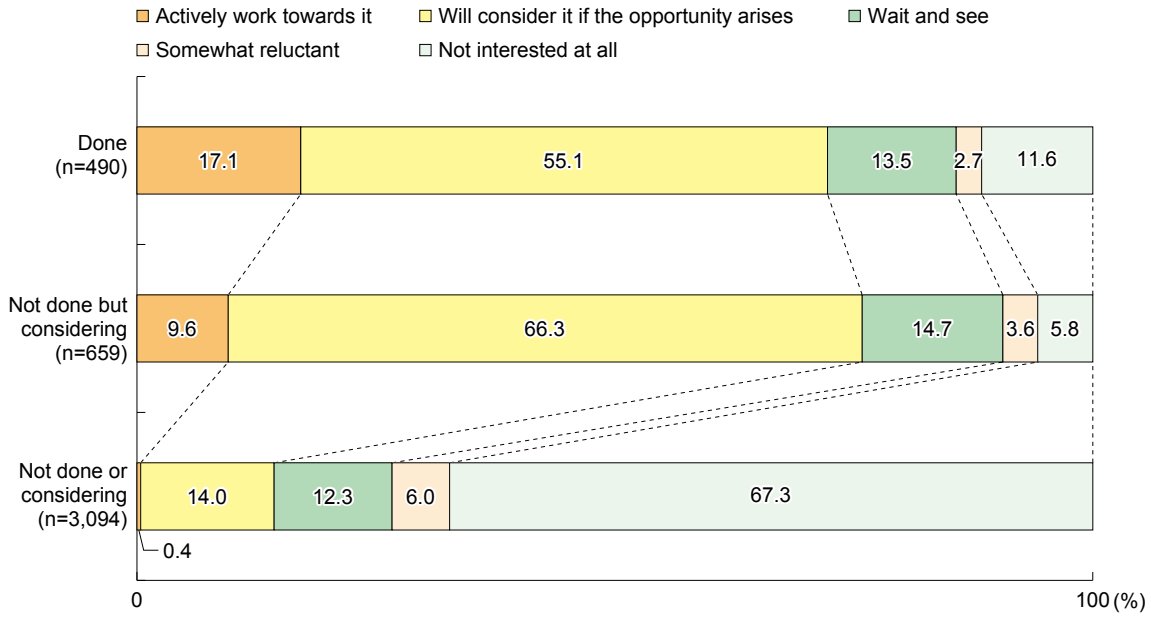


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

2. M&A as a buyer

In the following we will look at the idea of future M&A as a buyer depending on each particular M&A situation. First of all, looking at the future M&A intentions based on past M&A situations, it can be seen that enterprises that have "done" M&A in the past are likely to actively pursue M&A in the future (Fig. 2-6-39).

Fig. 2-6-39 Future intentions to carry out M&A based on past M&A situations

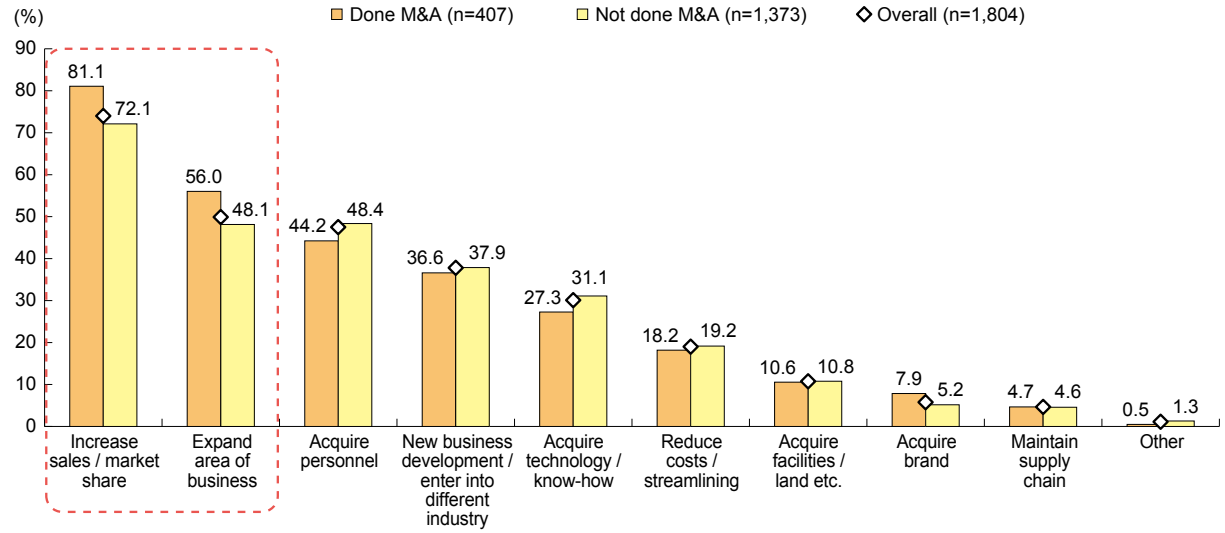


Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).

From here on let's focus our attention on whether mergers and acquisitions have been carried out in the past or not.

Looking at the goals and expected effects of M&A as a buyer, many enterprises point out "increase sales / market share" and "expand area of business" (Fig. 2-6-40). And in terms of whether or not M&A is implemented, it is clear that the enterprises which have done M&A have a strong tendency and inclination to utilize M&A as a means for expanding the scale and areas of business.

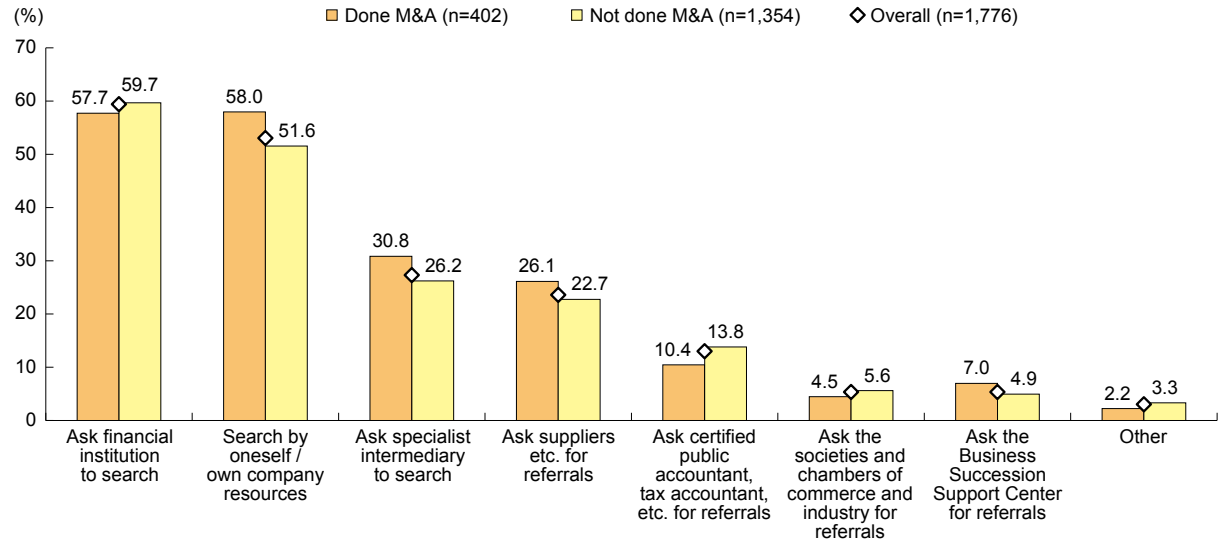
Fig. 2-6-40 The goals and expected effects of M&A as a buyer based on whether M&A has been carried out in past or not



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

When looking at how to search for other party when carrying out M&A as a buyer, many enterprises cite "ask financial institution to search" (Fig. 2-6-41). Additionally, enterprises that do M&A have a high propensity to "search by oneself / own company resources."

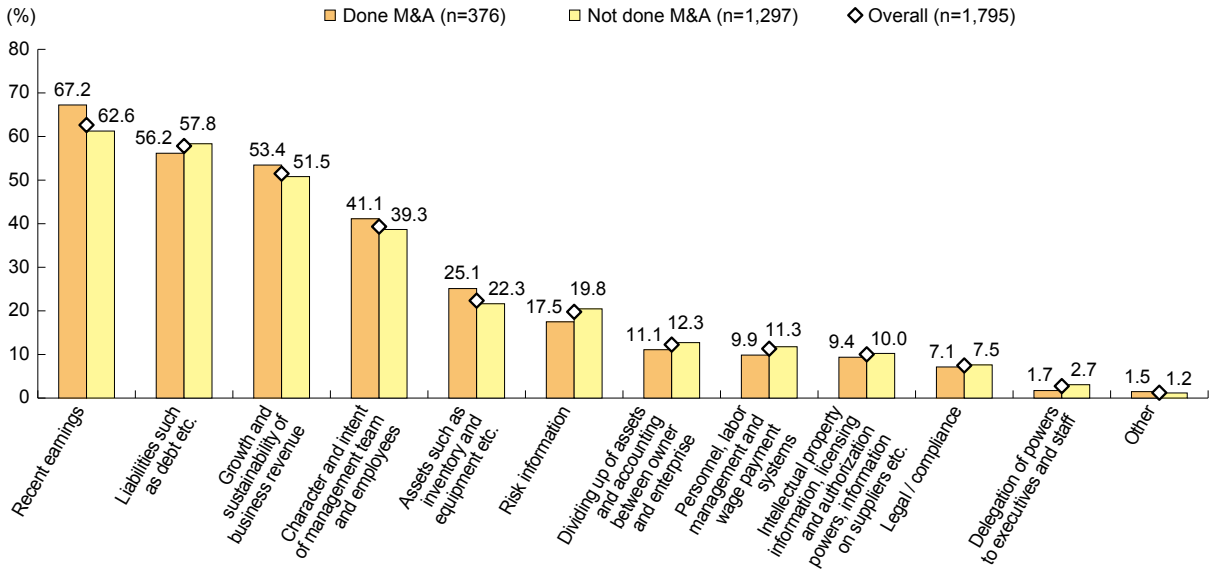
Fig. 2-6-41 How to search for other party when carrying out M&A as a buyer based on whether M&A has been carried out in past or not



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Next, looking at the most important points to consider about the other party when carrying out M&A as a buyer, most enterprises cited "recent earnings" followed by "liabilities such as debt etc." and then "growth and sustainability of business revenue" (Fig. 2-6-42). From this it is clear that enterprises which have done M&A, than have not done, place importance on the earnings of the business.

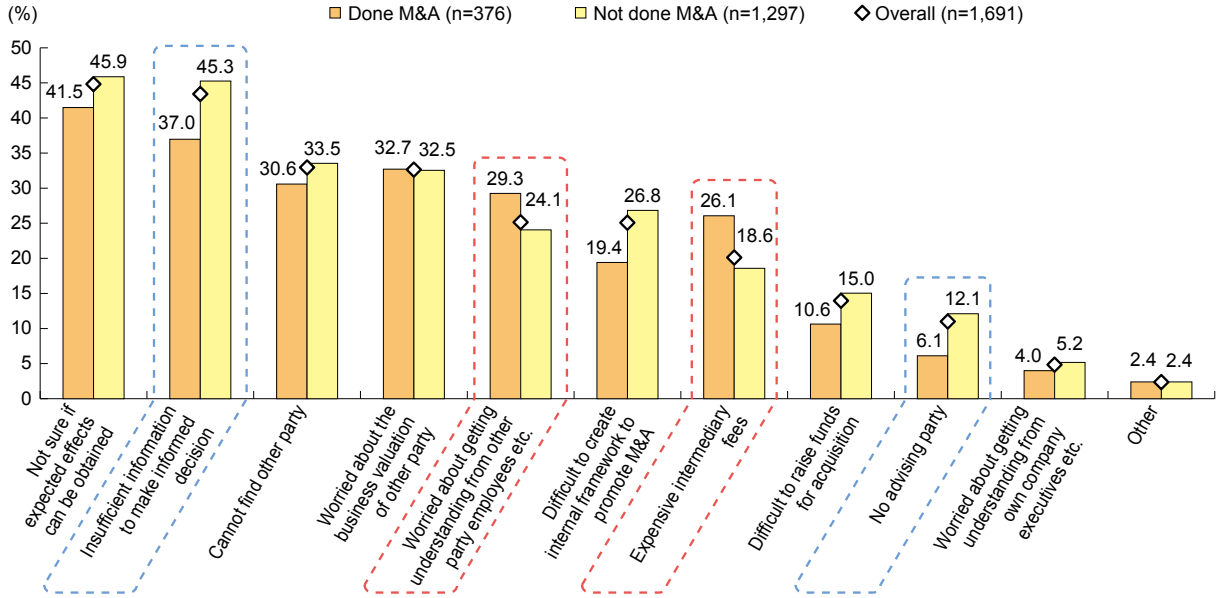
Fig. 2-6-42 The most important points to consider about the other party when carrying out M&A as a buyer based on whether M&A has been carried out in past or not



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Subsequently, as we look at the obstacles to doing M&A as a buyer, the most commonly cited response is "not sure if expected effects can be obtained" followed by "insufficient information to make informed decision" with the proportion of responses from enterprises which have not yet done M&A being higher (Fig. 2-6-43). Additionally, enterprises which have previously done M&A cited "worried about getting understanding from other party employees etc." and "expensive intermediary fees" more strongly. As we saw in the previous section, these points are also of concern for those enterprises which have done M&A.

Fig. 2-6-43 Obstacles to doing M&A as a buyer based on whether M&A has been carried out in past or not



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

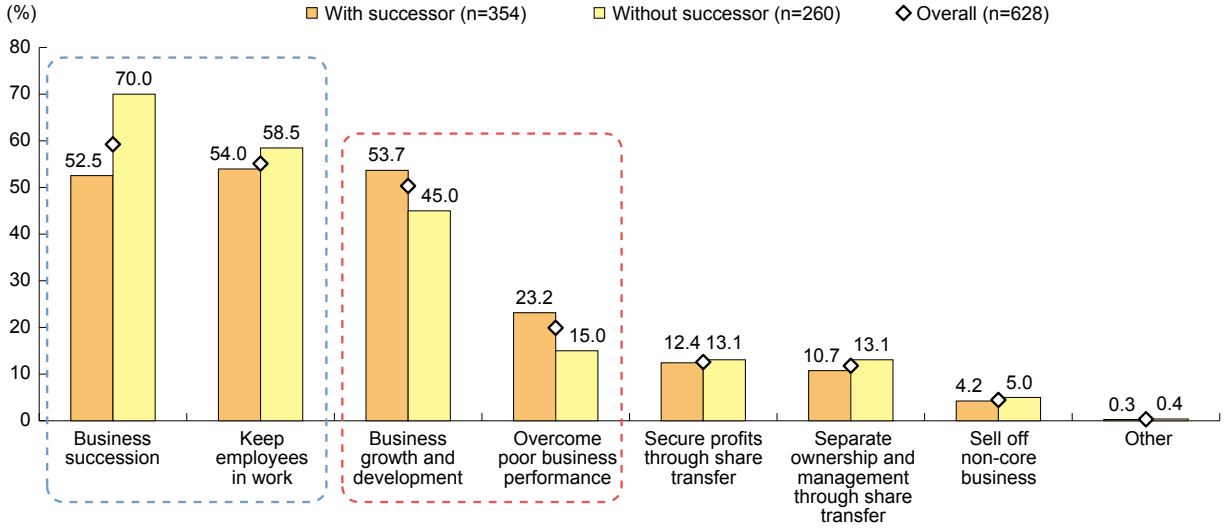
3. M&A as a seller

In this section we will look at the future M&A intentions as a seller based on whether the business is with a successor or not. As we saw in Fig. 2-6-19, the most common goal for finding an M&A partner as seen from the buyer's perspective was "business succession." We shall therefore focus our attention on the relationship between business succession and M&A, analyzing such cases based on whether the business has a successor or not.

Firstly, looking at the goals of M&A as a seller and the expected effects, "business succession" and "keep employees in work" are the most common responses with enterprises without successor showing a greater propensity to respond as such, suggesting that M&A is one option for succeeding the business (Fig. 2-6-44). Conversely, enterprises with successors have a strong tendency to think of M&A as a means to expand and improve performance as seen with such responses as "business growth and development" and "overcome poor business performance."[14)]

14) Reasons why enterprises which have successors are considering M&A as a means for "business succession" include (1) old business owner (2) not such a great desire to carry out M&A, inferring that, for those looking to do M&A as a seller, should they be able to find a more suitable successor than the one already in place they would consider doing M&A.

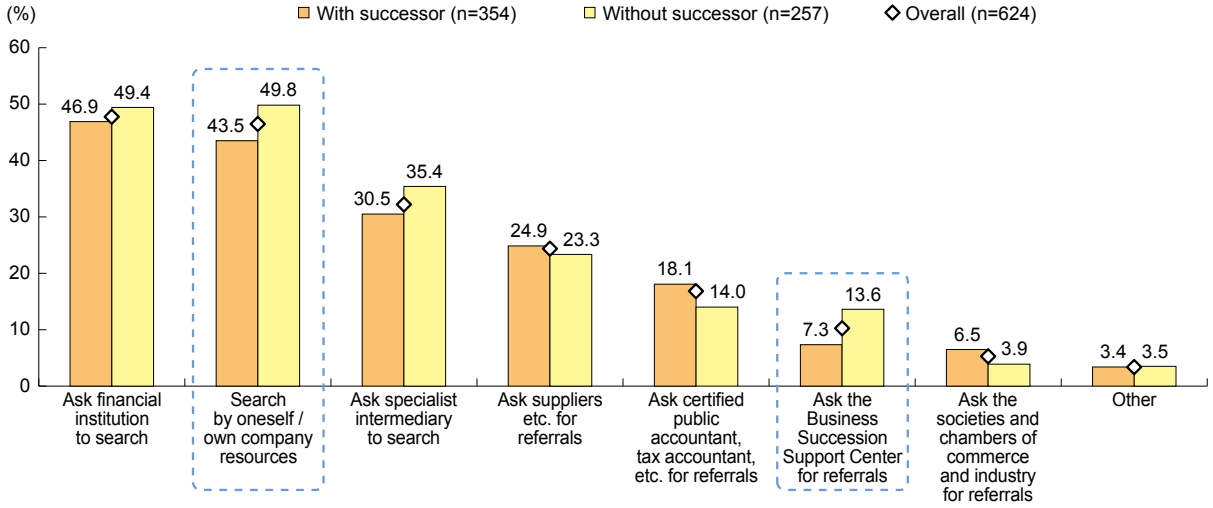
Fig. 2-6-44 The goals and expected effects of M&A as a seller based on with or without successor



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Looking at the ways of finding other party when doing M&A as a seller based on with or without successor, in the case of an enterprise without a successor, the largest number of respondents cited "search by oneself / own company resources" (Fig. 2-6-45). On the other hand, the proportion of respondents that answered "ask the Business Succession Support Center for referrals" is higher for enterprises without successor than those with successor, suggesting that the Business Succession Support Center is becoming widely recognized as an M&A support contact point for enterprises without successor.

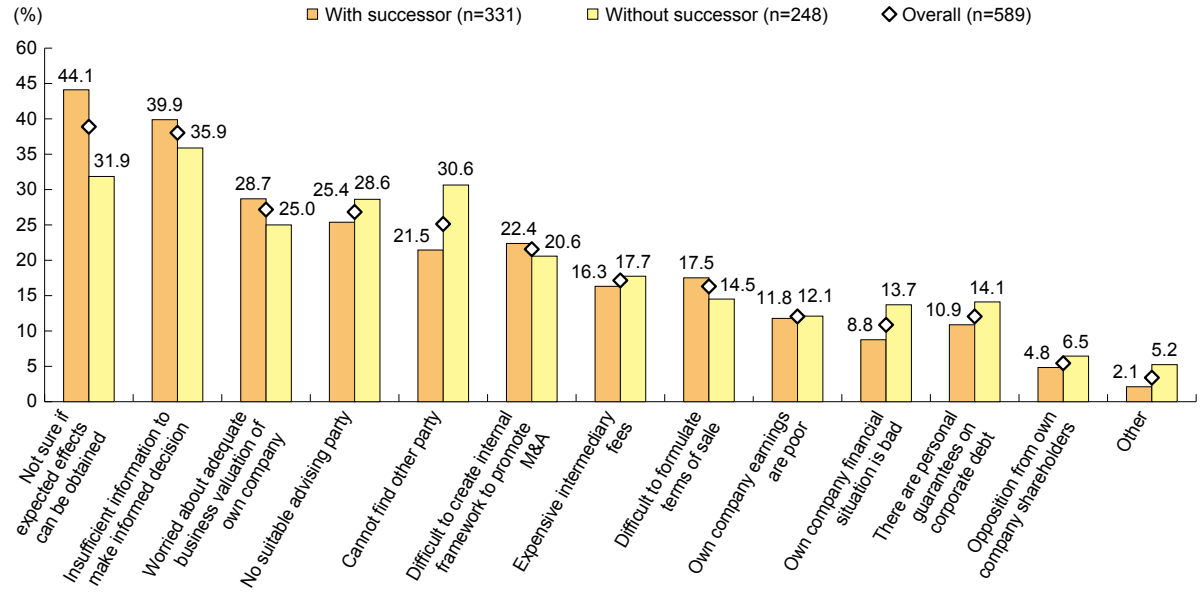
Fig. 2-6-45 How to search for other party when carrying out M&A as a seller based on with or without successor



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Looking at the potential obstacles for when doing M&A as a seller with or without successor, the most commonly cited response from enterprises with successor is "not sure if expected effects can be obtained" where as the most commonly cited response from enterprises without successor is "insufficient information to make informed decision" (Fig. 2-6-46). These points overlap with the challenges faced by enterprises doing M&A and the obstacles for those doing M&A as a buyer as seen in the previous section. Conversely, the percentage of respondents that answered "cannot find other party" is more for those enterprises without successor, so it is important to support such enterprises with respect to matching businesses.

Fig. 2-6-46 Obstacles to doing M&A as a seller based on with or without successor



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

Case 2-6-13 Japan Private Equity Co., Ltd.

A company which manages business continuation funds to support SMEs in raising enterprise value

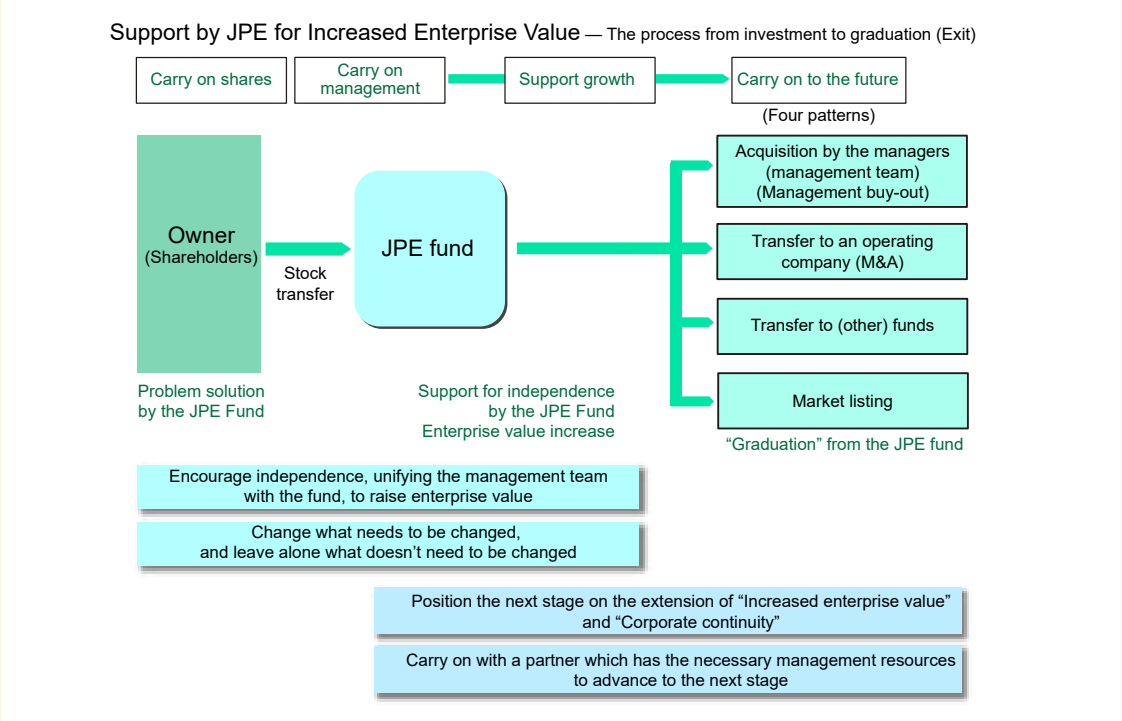
Japan Private Equity Co., Ltd., located in Chiyoda City, Tokyo, operates business continuation funds etc. that support SMEs in raising their enterprise value. Established in 2000, it targets mid-sized companies and SMEs, and has a record of investing in 27 companies over 18 years.

Now that so many companies are struggling over business continuation due to shortages of successors, the level of need is rising still further in a wide range of business fields.

The investment targets of the management fund are SMEs with revenues between a few hundred million yen and ¥5 billion, and between 20 and 200 employees. Recently, the company has been consulted by growing numbers of even smaller SMEs.

The period over which the company acquires shares from owner-managers and holds management rights is around 3-4 years. Over that period it provides instruction in basic development of organization management. In SMEs, it is common for directors and employees to be left completely uninformed by the owner-manager about the company's operating status, so Japan Private Equity works to visualize management, nurture and educate the management team, and support enterprise value growth, to enable the investment recipient company to continue into the future in the form that is most suitable for it.

Recently, it is becoming increasingly common for investment from the fund to be followed by forward-looking management buyouts (MBO), in which successor managers with no family relationships to previous managers buy the shares. Nurturing managers during the investment period, who will be successors later, transitions the investment recipient SMEs from the previous owner-managers to organization managers.



The company's support for increased enterprise value

President Shinichi Hotta says "The most important thing for raising the enterprise value of SMEs is to visualize management and share that with the workers. Having visualized the management, we can identify what should be changed and what should not, add what is lacking, and naturally do what is natural to do. A fund is a leading option as a forward-looking solution for business continuation. We want companies to dig into very possibility, without images and preconceptions, for the sake of the employees."

Case 2-6-13 (1) Watanabe Co., Ltd.

A company which used a continuation fund for SMEs to perform an MBO

Watanabe (employees: 60; capital: ¥30 million), located in Tsubame City, Niigata Prefecture, is a company that processes sheet metal, mainly stainless steel, for use in semiconductor equipment, food and drug-related equipment, car parts manufacturing equipment, and labor-saving devices etc.

Facing the lack of a successor among close family members, owner-manager Eisaku Watanabe was considering retiring and selling the company to an operating company, but he also had plans to develop the company further and build a new factory, so he decided to transfer all shares in the company to a continuation fund operated by Japan Private Equity Co., Ltd. One potential successor to lead the management was current Representative Director Matsui, who had just been promoted from factory manager to managing director.

Japan Private Equity Co., Ltd. dispatched a young financial officer to the company to support the building of a management organization around Matsui, as well as engaging actively in equipment investment, opening up sales routes, and hiring personnel, to build the management foundation for business expansion. Over four years, this process of supporting the independence of managers and building the foundation of organization management led to Mr. Matsui using financing from a regional financial institution to personally purchase the company shares. Independence through MBO further changed employee perceptions, and business performance is expanding steadily.

Case 2-6-13 (2) Healthy Service Corporation

A company which used a continuation fund for SMEs to perform M&A

Healthy Service Corporation (employees: 609; capital: ¥10 million), located in Chiba City, Chiba Prefecture, operates group homes and a nursing business which provides home visits for nursing, bathing, and other services. It has 30 years of operating track record and expertise, mainly centered in Chiba Prefecture, and its highly-experienced personnel are its greatest strength, making it a pioneering presence in the industry.

In 2009 the company's owner-manager, facing the lack of a successor and feeling the limitations on owner-managers in the industry, was considering selling the company. Considering the employees and continuation of the corporate culture, the owner decided to transfer all shares in the company into a continuation fund operated by Japan Private Equity, rather than to an operating company.

Japan Private Equity took steps to strengthen the management and business foundations, through measures such as seconding a representative director and president from outside the company, to carry the company on as a nursing business with close links to the local community. After five years of support for raising enterprise value, the shares were transferred to Sekisui Chemical Co., Ltd., which wanted to enter the nursing care business in anticipation of synergy effects with its housing business. The thinking behind that step was that for the company to make continuous progress in what was expected to be an increasingly harsh industry environment, it would be better to hand the business on to a company in another industry, rather than to another company in the nursing industry.

In 2014, the company became a wholly-owned subsidiary of Sekisui Chemical Co., Ltd. The fusion between its record and expertise in the nursing business and the abundant management resources of the Sekisui Chemical Group created a new business model of "Home + nursing services." Now that the company operates under the Sekisui brand, it is easier to hire personnel, and it can deepen its community-linked services, so it is expanding its nursing business further.

Case 2-6-14 Serendip Consulting Corporation

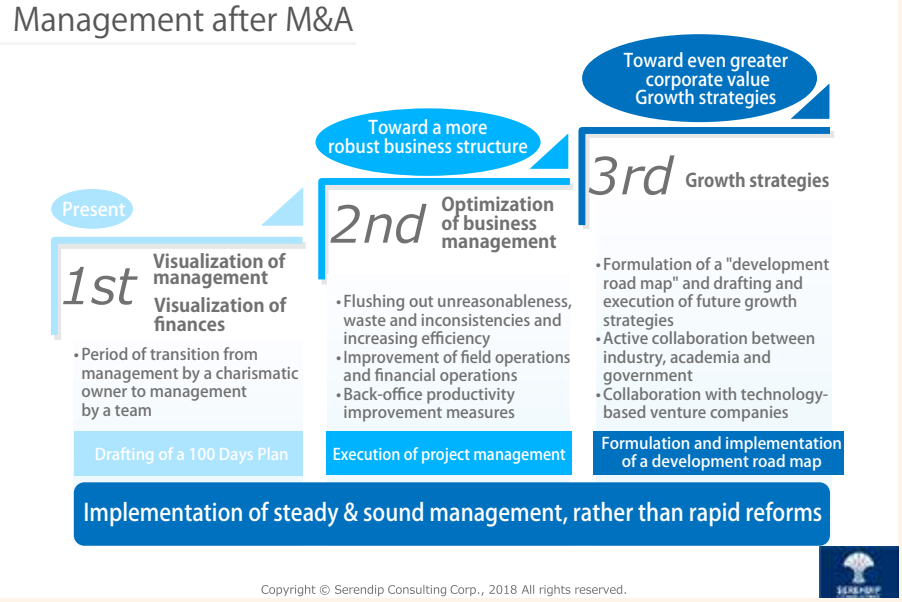
A company which dispatches "pro managers" through M&A-based business continuation, to support productivity improvement

Serendip Consulting, located in Nagoya City, Aichi Prefecture, practices business continuation through share acquisition (M&A) of manufacturing companies producing goods such as car parts and high-tech components, and dispatches "pro managers" who aim to raise enterprise value with a combination of deep expert knowledge and ambition. Through this approach, the company builds a management team within the target company, and directly ensures sustainable growth and management improvement and productivity improvement in SMEs.

In cases where management succession has not been arranged, the company temporarily takes over the company's shares, nurtures the next generation of managers during that period, and promotes business continuation through management buyout (MBO), in which the management team buys the shares back. The transfer of shares to the company has no fixed term, but is assumed to be a long-term holding. The policy is to make ambitious investments in necessary equipment, personnel, and R&D, with a view to continuing growth, so it gains the sympathy of owner-managers.

One characteristic of the company's management improvement is its network of over 3,000 management personnel at the level of directors and department managers at large companies. If there is no suitable successor within a company it invests in, Serendip Consulting forms a clear image of the type of manager that the company needs, and then dispatches a suitable pro manager from within its network. It is common for SMEs to be unaware of figures they need for management control, such as cost rates and operational availability rates.[15] Therefore, personnel (CFOs) to support management, particularly in financial and management planning departments, are dispatched to the company at the same time, to work on management visualization and to assist in forming a support team for the managers.

After the figures needed for management control are developed, a "100 Days Plan" is drawn up, as an action plan to run after the start of management participation. Around 300 management issues are examined



Management improvement process of Serendip Consulting

15) Operational availability rate is an index which indicates what proportion of machinery or other equipment will operate normally when required.

in order to optimize business operations, working steadily to raise efficiency, improve workplace and financial administration, and raise back office productivity. In the execution stage, issues identified by the management tiers of directors and some department managers are ranked for priority, then a project is drawn up which clearly states who has to do what, and by when, to move ahead with management improvement.

One point that is emphasized in the process of management improvement is that able personnel within the company are identified, and personnel exchanges with other companies in the corporate group, and strategic job rotation, are practiced to clarify the career paths of such personnel. After operations have been improved and organization foundations have been built up in this way, a growth strategy is formulated and executed. This strategy includes elements such as drawing up a development road map for new products, and is intended to raise enterprise value. The diligent accumulation of management improvements enables management by a team centered on the pro manager.

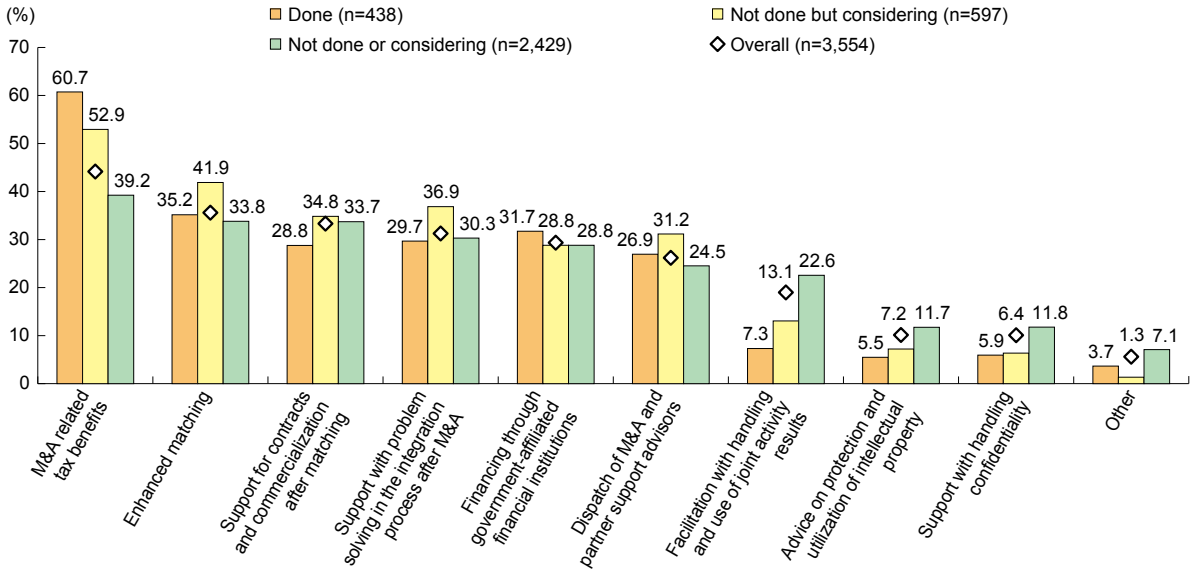
Chairman Noriyasu Takamura says "We produce many pro managers, and we put the modernization of SME management in our management vision. We aim to go on expanding our group of companies, centering on manufacturing, particularly of car parts and high-tech components, aiming to build an organization that can carry on as a hundred-year company. We also want to build a platform for tier 1[16] companies that binds our group companies together."

16) A tier 1 company is a primary supplier which trades directly with automakers and other manufacturers of end products.

4. Policy measures to promote future M&A

Looking at the support measures for future inter-company collaboration and promotion of M&A based on M&A situation, "M&A related tax benefits" garnered the largest response especially for those enterprises which have "done" M&A before (Fig. 2-6-47). "Enhanced matching" follows as the next most commonly cited measure needed for the promotion of future M&A. The direction of support for such measures is explained in the Five-Year Plan for Business Succession created by the SME Agency in July 2017. It is expected that these measures will be implemented and achieved over the course of the five year plan.

Fig. 2-6-47 The support measures for future inter-company collaboration and promotion of M&A based on M&A situation



Source: Mitsubishi UFJ Research & Consulting Co., Ltd., *Survey on Collaboration Among Companies Looking for Growth* (November 2017).
Note: Total does not always equal 100% as multiple responses were possible.

5. Summary

In this section we looked at the intention of future mergers from the viewpoint of buyers and sellers and also looked at the policy measures required.

Although there are some differences, it turns out that about half of enterprises have some kind of interest in M&A, with many enterprises being interested as buyers. Also, we saw that enterprises which have carried out mergers in the past and enterprises with younger business owners tended to be interested in doing M&A at some point in the future.

Enterprises interested in M&A as buyers consider mergers for the purposes of increasing sales, market share and expanding their areas of business, while enterprises that are interested in M&A as sellers mainly considered M&A as a means to succeed the business, most notably for those enterprises without a successor. It can be said that it is important to match the needs of both the buyers and sellers.

Looking at the potential hindrances for those enterprises interested in M&A, the problems raised are shared with the issues of enterprises which have carried out mergers especially with respect to the issues surrounding business matching. We can say that facilitating business matching is important as a measure to support the promotion of M&A.

Column 2-6-7 A review of the tax system concerning business succession

Business owners are continuing to get older and the number of SME and micro business owners with an average retirement age of over 70 in the next decade is expected to reach about 2.45 million people, of which about half, or 1,270,000 people, are thought to have no successor in place to succeed the business.

Of these businesses there are SMEs and micro businesses which have excellent management resources. The changeover to a new generation of business owners should not be a problem just for the enterprise itself but instead should be regarded as a matter which needs to be addressed urgently for the Japanese economy.

For this reason and in order to take action on necessary policy measures the taxation system relating to business succession has recently been greatly enhanced (Fig. Column 2-6-7 (1)).

Fig. Column 2-6-7 (1) Outline of the revision of business succession tax system in FY2018

The establishment and extension of tax measures to support SME business succession to the next generation (business succession tax system)

(Inheritance tax and gift tax) Extension

- Substantial extension for business successors succeeding business within 10 years, submit succession plan within five years to defer gift tax and inheritance tax payable on business succession.
- 1. Extension to the number of eligible shares and deferment period
  2. Wider target group
  3. More flexible employment requirements
  4. Establishment of a new tax reduction and exemption system.

Relaxing the tax entry requirements – Minimizing the impact of business succession –

Present system	Revision
• Upper limit of 2/3 of all shares and 80% inheritance tax eligible for tax deferment. Successors liable to pay large amount of gift tax / inheritance tax at time of business succession. • Tax system applies only to gifts and inheritance from one business owner (predecessor) to one successor.	• Remove upper share limit making all shares applicable. Amount subject to tax deferment increased to 100% ensuring no tax payable at time of succession. • Applicable for succession from multiple shareholders (non-family) to representative successor (max. 3 people). Supporting all kinds of business succession based on the circumstances of SME management.

Reducing risk after tax applications – Easy to use tax system alleviating future worries –

Present system	Revision
• When the successor voluntarily closes or sells the business, even if the stock price drops due to changes in the business environment, an excessive tax burden may arise because gift and inheritance tax is calculated based on the stock price at the time of succession. • Once signed up to tax system deferment is canceled unless an average 80% or more employment rate is maintained for 5 years. Employment requirements are a heavy burden for SMEs amid labor shortage	• Calculate the amount of tax based on amount sold or the value at time of closing and exempt the tax difference based on the share price at the time of succession. Reduces anxiety that may stem from changes in the business environment. • Deferment period can be continued even when more than 80% employment rate on average over 5 years not maintained (guidance from an accredited support agency required in cases of bad management etc.).

* In addition to the above, business succession taxation will be extended and necessary measures taken.

[Business Succession Tax System - FY2018 Tax System Revision Points]

To wholeheartedly support SME business succession, the "business succession taxation system" which reduces the constraints of gift tax / inheritance tax at the time of business succession will be substantially enhanced for the next 10 years. For that purpose, a "special succession plan" is being submitted to all the prefectures in the country in the five years from April 1, 2018 to March 31, 2023, whereby business succession should take place within the ten years from January 1, 2018 to December 31, 2027. The points of this revision are as follows.

(1) Removal of upper share limit

Existing tax deferrals require that only up to 2/3 of the total number of transferred shares and in the case of inheritance tax a proportion of 80% be eligible for deferment. Total deferment is limited to approx. 53% (2/3 x 80%) of the total amount, however with the taxation system revisions the removal of an upper limit to the number of shares transferred as well as 100% of any inheritance ensures that there is no tax burden for business succession.

(2) A radical review of employment requirements

At present, it is required to maintain 80% of employment on average for five years after business succession, and if it this cannot be maintained all deferred gift tax and inheritance tax must be paid. However, should businesses be unable to maintain an average 80% employment rate, as a result of this revision enterprises will be able to continue their tax deferral. However, if it is deemed that any drop in the employment rate is due to bad management or other unjustified reason then it shall be necessary to receive guidance and advice from an accredited support organization.

(3) Increasing the number of eligible benefactors

Currently the tax system applies only to gifts and inheritance from one business owner (predecessor) to one successor but due to the revisions business succession will become possible from multiple shareholders (non-family) to representative successor (max. 3 people).

(4) Exemptions in case of worsening business climate

Currently when the successor voluntarily closes or sells the business, even if the stock price drops due to changes in the business environment, an excessive tax burden may arise because gift and inheritance tax is taxed based on the stock price at the time of succession. Through the revisions the amount of tax is calculated based on the amount sold or the value at the time of closing and the tax difference calculated based on the share price at the time of succession is exempted. This reduces anxiety that may otherwise arise from any future changes in the business environment.

[Tax system support for enterprises without successor]

As well as fundamentally expanding the business succession taxation system, it is necessary to work towards business succession and a handover of technologies by reorganizing and consolidating management resources and business through so-called M&A when there is the problem of being unable to succeed the business due to there being no successor.

Through the revisions in legislature for strengthening SME management being enacted in the Diet and with additional support for business succession by M&A, a boost has been given to support business succession for third parties. Under the same law the plan to improve management has been recognized and with the FY2018 revisions to the taxation system measures are being taken to alleviate registration license tax and property tax liable on cases of company restructuring and integration (Fig. Column 2-6-7 (2)).

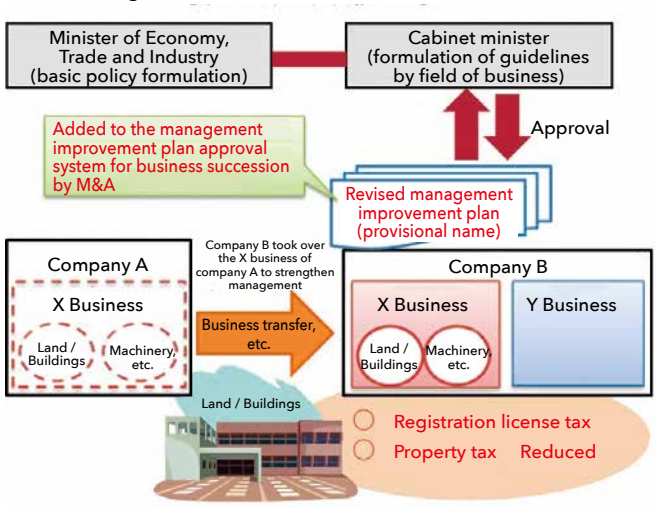
Fig. Column 2-6-7 (2) Measures to alleviate tax payments related to restructuring and integration of SMEs and micro businesses (FY2018 tax reforms)

The establishment of measures to alleviate tax payments related to restructuring and integration of SMEs and micro businesses

(registration license tax and property tax) Establishment

- It is important to work towards business succession and a handover of technologies by reorganizing and consolidating management resources and business through so-called M&A when there is the problem of being unable to succeed the business due to there being no successor. For this reason, the revisions to the SME Management Enhancement Law and additions to support business succession through mergers have helped to encourage enterprises to pass on their businesses to third parties.
- Based on the revised management improvement plan (provisional name), measures have been created to accelerate management succession to the next generation by reducing registration license tax and property tax liable on cases of company restructuring and integration.

Revision Outline [Applies until end of FY2019]
[SME Management Enhancement Law]



<Registration license tax rate>

		Regular tax rate	Plan approved tax rate
Registration of property ownership transfer	Registration of transfer by merger	0.4%	0.2%
	Registration of transfer by split	2.0%	0.4%
	Registration of transfer by other methods	2.0%*	1.6%

* Reduced to 1.5% until March 31, 2019, when buying or selling land.

<Property tax rate>

	Regular tax rate	Tax rate at planning approval (In cases of business transfer*2)
Land/ Houses	3.0%*1	2.5% (1/6) Equivalent reduction
Buildings other than housing	4.0%	3.3% (1/6) Equivalent reduction

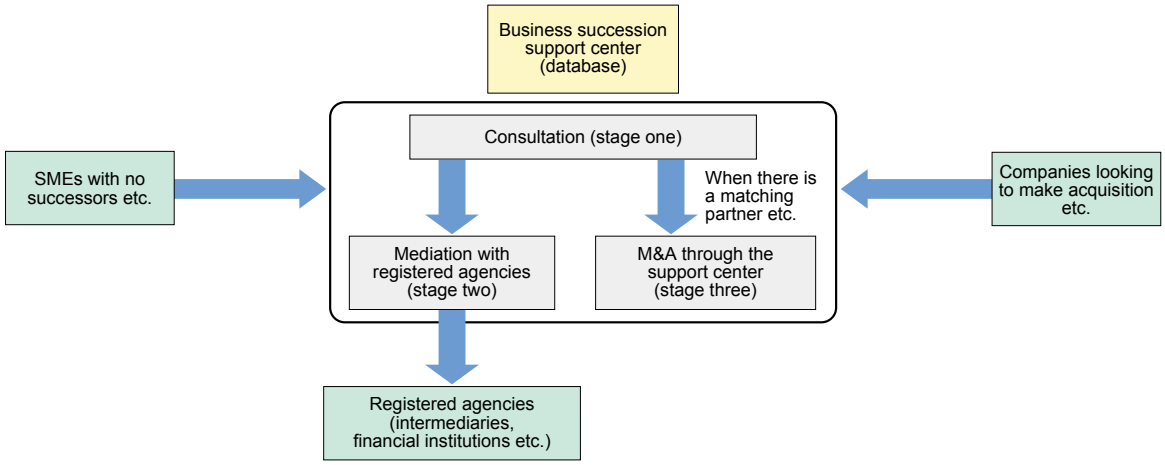
*1 Reduced to 3.0% until March 31, 2021, when buying land or housing.
(4.0% if acquiring a building other than a residential building)
*2 Merger / Tax exempt in cases of corporate split
*3 Excludes certain property such as business premises and lodgings

In addition to taxation measures to enhance the business succession tax system and bolster third party succession, the government is providing continuous support such as with subsidies to assist successors to take on new challenges so that Japan's precious SMEs and micro businesses throughout the country can succeed their businesses on to the next generation.

Column 2-6-8 Support provided by the Business Succession Support Center

In order to facilitate business succession for SMEs the Business Succession Support Center[17] established in each prefecture provides advice, information and business matching support to help businesses overcome some of the challenges they face (Fig. Column 2-6-8 (1)).

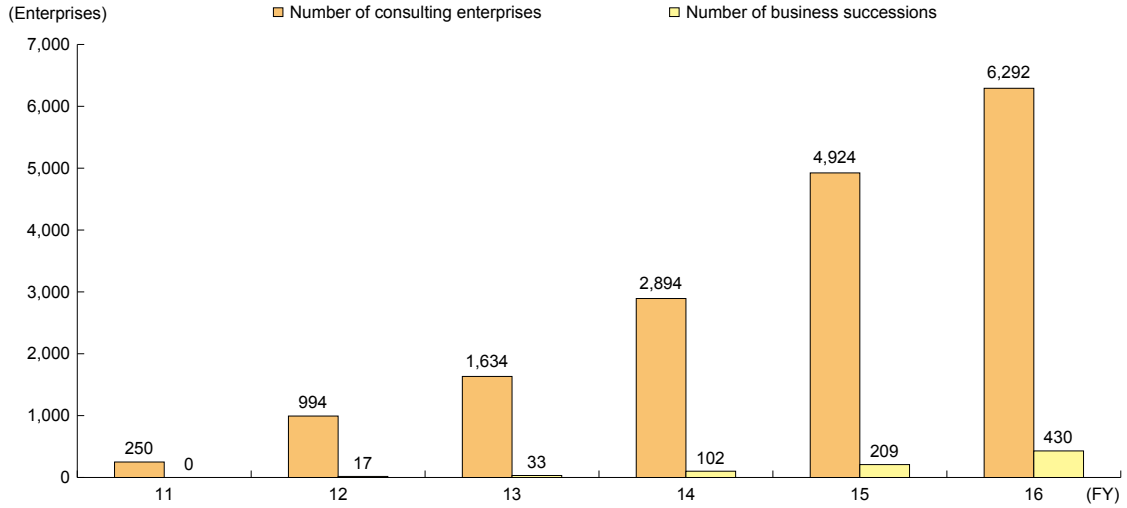
Fig. Column 2-6-8 (1) The Business Succession Support Center Support Scheme



Business Succession Support Centers started with seven centers in fiscal 2011 to ten centers in fiscal 2013, sixteen centers in fiscal 2014, 46 in fiscal 2015, and then 47 centers in fiscal 2016 with support centers now set up in every prefecture. Fig. Column 2-6-8 (2) shows the number of consulting enterprises and the number of business successions concluded by Business Succession Support Centers. The chart clearly shows the number of consulting enterprises and the number of concluded business successions increasing along with the establishment of these business succession support centers. It is expected that further cooperation with other support organizations (local societies and chambers of commerce and industry, financial institutions, professional experts etc.) will further help promote support for business succession.

17) Business succession support centers are specialized institutions established to support SMEs find successors etc. based on the Industrial Competitiveness Enhancement Act.

Fig. Column 2-6-8 (2) Consulting enterprises and concluded business successions by Business Succession Support Centers



Source: Data from SME Business Succession Support national headquarters

Case 2-6-15 Akita Prefecture Business Succession Support Center

A support agency which partners with other support agencies to encourage business continuation

Akita Prefecture Business Succession Support Center started its support for business continuation after it was entrusted with such operations by the national government in April 2014. In FY2016 it handled 304 consultation projects, the third largest number in the country, behind Tokyo and Osaka. Since the center opened, it has handled over 1,000 consultation projects.

In Akita Prefecture, the population is shrinking and aging, a high proportion of managers are aged 60 or older, and many companies have no management successors, so business continuation is a big problem for the prefecture. Based on that situation, it handles a wide range of business continuation consultations, providing information and advice, and giving referrals to other support agencies. Specifically, for its operations in Akita Prefecture, the Center has posted five business continuation counselors to districts within the prefecture, and it collaborates with the Akita Chamber of Commerce and Industry and Akita Prefectural Federation of Societies of Commerce and Industry to identify SMEs and small businesses that need consultation support.

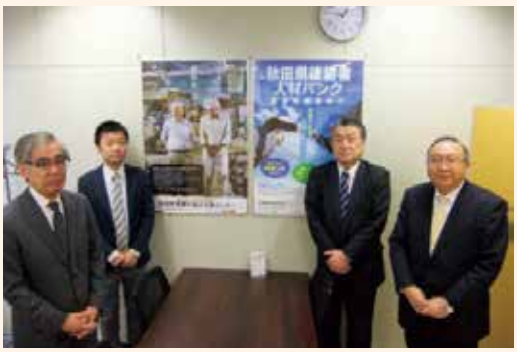
In this way, the support agencies work in close collaboration and the business continuation counselors work to identify the support needs of SMEs and others. This system is highly regarded in all parts of the prefecture as an "Akita Model," and it is attracting attention as a stream of observers visit from Business Succession Support Centers in other prefectures.

The Center provides managers with free and accessible consultation about business continuation and M&A for SMEs, but it also emphasizes detailed follow-up, by Akita Bank and other support agencies, of each company's situation after the M&A is completed. It also makes considerable efforts to disseminate its information through regional newspapers and TV stations.

When the Center first opened, it received absolutely no M&A buying consultations, but over the last year or two, as such efforts have begun to yield effects, it has started receiving consultations from managers from within the prefecture, who are mainly in their 40s and 50s. Young managers, looking 10 or 20 years ahead and considering moving into new fields of business, appear to be considering M&A as buyers, as an element in their growth strategies. In future, such managers can be expected to serve as a safety net, to carry on the business operations of small businesses which lack successors.

General Manager Masato Kawata says "business continuation is a management challenge that any company will inevitably have to face, but smooth business continuation takes as much as five to ten years.

It is important for the government, commercial groups, financial institutions, professional experts, and others related to business support to work together, to raise awareness and encourage preparation from an early stage, and handle a wide range of consultations. We listen to managers' problems, examine the issues, and think of solutions, but if there is no successor, passing the business to a third party for continuation is an option, rather than thinking of giving up and closing the company. That is why we want managers to consult us as early as possible."



The staff of Akita Prefecture Business Succession Support Center

Case 2-6-16 Kazuno Meishu Co., Ltd.

A company founded in the Meiji era that moved from difficulty finding a management successor, through using M&A, to advancing traditional *sake* brewing

Kazuno Meishu (employees: 6; capital ¥10 million), located in Kazuno City, Akita Prefecture, is a *sake* brewery that was founded in 1872 (year 5 of the Meiji era). Founded as a personal business, its main business was the *Chitosezakari* brand, which was named in 1922 in the hope of a flourishing society and long lives, and has deep-rooted local popularity in Kazuno City. In 1944 it was placed under the control of another company by administrative order, and continued in production as that company's No.7 factory, but when that company's manufacturing was consolidated in Odate City, it was no longer possible to carry on brewing in Kazuno. Local people talk of it as a time when it was not a local *sake*. After being spun off as a separate company, it resumed *sake* brewing in Kazuno City in 1991, as Kazuno Meishu.

Most of the brewery's customers were within Kazuno City, and while it managed to make some sales to tourists, the market continued to shrink along with the local population. With that background, the company is now the only one left of the five *sake* brewers that used to operate in the city, and the previous president, Kiyoshi Tamura, was left wondering what to do to keep on brewing *sake*. When President Tamura reached the age of 66, the company was still training its own master brewers and maintaining the infrastructure for sake brewing, so he was looking for a successor from within and outside the company who would be able to carry on its business.

At that time, he saw a direct mailing from the SME Agency in 2016, and went to consult the Akita Prefecture Business Succession Support Center. In the course of the consultation, he learned that M&A was one option for business continuation, and was referred upwards from the Business Succession Support Center to Akita Bank for secondary consultation. There, he signed an advisory contract and started considering M&A in earnest. He had thought that another brewery would be a good M&A counterpart to transfer operations to, but he came to realize that even another brewery took that role, it would still not be possible to pass on Kazuno's *sake* to later generations if the *sake* could not be sold more widely.

In that way, based on advice from Akita Bank, Tamura started considering a company from a different industry, with its own sales network. Ultimately, he succeeded in transferring the business through M&A and transfer of shares to Dreamlink Co., Ltd. (employees: 1,434; capital: ¥50 million), a company with its headquarters in Akita City, Akita Prefecture and 106 stores nationwide. In future, the brewery's sake will be sold in bars and restaurants developed by Dreamlink, and it will work on developing new products to reflect comments from consumers in those restaurants.

Former president Tamura of Kazuno Meishu says "I very much hope that preserving a *sake* brewery that is loved in the community, and further extending it as a brand, will not just lead to the survival of a venerable brewery with over 100 years in operation, but will also protect local companies and culture."

From the left, President Masahiko Murakami of Dreamlink Co., Ltd. (the current president of Kazuno Meishu) and former president Kiyoshi Tamura of Kazuno Meishu

Section 5 Summary

In this chapter we have reviewed the restructuring and integration of SMEs with a focus on M&A.

Due to the structural change of the economy it is becoming increasingly difficult for SMEs to continue the scale of sales growth. In addition, M&A is an effective option as a means of business succession for enterprises with aging business owners and no apparent successor. Against this backdrop, SME mergers have steadily increased in recent years.

We have seen that enterprises which carry out mergers as buyers are trying to add more value and improve their labor productivity through increased sales and profits by expanding their areas of business, products and services. In order to improve such added value it is important to demonstrate the synergistic effects between the businesses of both the buyer and the seller. Even when we look at the goals of the other party in mergers we see that there are many cases of M&A and we can say that it is being utilized as an option for business succession for enterprises which find it difficult to succeed their businesses.

Challenges are faced at each stage of the M&A implementation process but in order to promote M&A it is important to facilitate business matching. Because of this, support from agencies such as financial institutions, specialist intermediaries and professional experts is important and it is expected that these support agencies will respond to various needs by collaborating with each other to complement their expertise and work towards matching businesses.

Looking at the utilization of M&A for the future, although there are some differences it seems that about half of all enterprises surveyed are interested in M&A in some way or another. Even SMEs consider mergers and acquisitions as a strategy for growth and it is expected that this use of M&A will progress in the future. While buyers consider utilizing M&A as means for expanding market share and increasing the size of their business area, sellers consider M&A as a means for business succession. Linking these needs between SMEs is expected not only to improve productivity for the SMEs themselves but also improve productivity for the whole Japanese economy as well.

With SMEs and support organizations becoming more aware about mergers and acquisitions, we would like to conclude this chapter with the expectation that the needs of more enterprises will be suitably matched and that M&A will lead to improved productivity for SMEs.

SME policies implemented in fiscal 2017

Contents

SME policies implemented in fiscal 2017

Chapter 1 Initiatives to strengthen management and increase productivity

Section 1 Enhancement of productivity improvement and technological capacity

1. **Strategic Core Technology Advancement Program and support program for collaborative efforts**
[Fiscal 2017 budget: ¥13 billion]
Support was provided for R&D initiatives that SMEs and micro businesses having an approved R&D plan under the SME Technological Advancement Act implement in cooperation with universities, public research organizations, and other such R&D institutions. Support was also provided to SMEs and micro businesses in their effort to develop a new service model based on industry-academia-government collaboration, in line with a cross-field collaboration plan for cultivation of a new business field that has been approved under the Act on Strengthening the Management of SMEs, etc. (Ongoing)

2. **Support program for enhancement of management capacities in the manufacturing, trade and services industries**
[Fiscal 2017 supplementary budget: ¥100 billion]
To build a robust economy, support was provided to cover part of the capital investments made by SMEs and micro businesses for the development of innovative services that could contribute to productivity increases, the development of trial products, and the improvement of productivity processes. (Ongoing)

3. **The National Institute of Advanced Industrial Science and Technology (AIST)'s bridgebuilding initiatives for medium enterprises and SMEs**
AIST supported the R&D initiatives of medium enterprises and SMEs by establishing a nationwide framework of cooperation such as through the appointment of an AIST innovation coordinator in public research organizations that possess knowledge of the needs of regional medium enterprises and SMEs, and by strengthening capacities to "bridge" innovative technology seeds of regional enterprises with commercialization initiatives. (Ongoing)

4. **Comprehensive support for enhancement of core manufacturing technologies among SMEs**
Comprehensive support was provided through the Strategic Core Technology Advancement Program and special loans and guarantees to SMEs and micro businesses with approved specific R&D plans that had been formulated in accordance with the advancement guidelines under the SME Technological Advancement Law. Furthermore, advancement policies were reviewed to promote SME initiatives to convert their strengths to added value through the use of IoT, AI and other such new technologies. (Ongoing)

5. **Joint infrastructure programs for productivity improvement of regional SMEs**
[Fiscal 2017 supplementary budget: ¥1.0 billion]
To improve productivity in regional SMEs, support was provided to programs that aim to introduce IoT-compatible devices, high-precision 3D printers and other such advanced facilities to public reseach organizations, etc. so that could be jointly utilized by multiple SMEs in the regions and to promote the utilization of such facilities by SMEs. (Ongoing)

6. **R&D promotion tax system (for strengthening the technological bases of SMEs)**
[Taxation scheme]
Under the fiscal 2017 tax reform, the scheme that provided a tax credit to SMEs , etc. in accordance with the total cost of testing and research expenses was revised to a scheme that provides a tax credit (12% - 17%) in accordance with the amount of increase in testing and research expenses (6% - 14% for large enterprises), and a measure was also taken to increase the upper limit of the tax credit 10% in cases where the amount of increase in testing research expenses exceeds 5%. Meanwhile, "service development" that corresponds to the Fourth Industrial Revolution was added to the business areas whose testing and research expenses are eligible for a tax credit. Furthermore, the scheme that provides a tax credit in accordance with the total cost of special testing and research expenses (cost of testing and research performed jointly or entrusted to a university, national research institution, private company, etc.) and the tax scheme that deducts an amount calculated by multiplying a fixed rate to the excess amount in cases where the amount of testing and research expenditure exceeds 10% of average sales were continued to be offered. (Ongoing)

7. **Support under the Small Business Innovation Research (SBIR) Program**
The provision of central government-allocated R&D spending for SMEs and micro businesses was expanded and the commercialization of the results of technological development activities was promoted, such as by designating specific subsidies for the development of new technologies leading to the creation of new industries, setting targets for expenditures, and formulating policies for measures to

support the commercialization of development results achieved using specified subsidies. Additionally, to promote the commercialization of technology development outcomes, SMEs and micro businesses were informed and encouraged to take advantage of the available commercialization support, such as the database of the technological capabilities of enterprises granted specific subsidies, and the low interest loans offered by the JFC. At the same time, the multistage selection process for the allocation of special subsidies was introduced and expanded. (Ongoing)

8. **Cross-field collaboration for new business development**
Pursuant to the Act for Strengthening the Management of SMEs, authorization and subsidies were provided for business plans that aim to develop and market new products and services by effectively combining the management resources (technology, markets, etc.) of SMEs in different sectors, in addition to providing wide-ranging support through special loans and guarantees. (Ongoing)

9. **Program to promote business creation through medical-engineering collaborations**
[Fiscal 2017 budget: ¥3.45 billion]
To promote the network for supporting the development of medical equipment and to provide seamless support from the initial stages of development to commercialization, accompanying-style consultation was provided to approximately 100 collaboration initiatives (cumulative total of approx. 500 initiatives since commencement of the program). Support was also provided for the commercialization of 39 items of medical equipment through a development and commercialization program, to promote the development of medical equipment through collaborations between manufacturing SMEs and medical institutions. (Ongoing)

10. **Act for Strengthening the Management of SMEs, etc.**
Measures were taken to provide taxation and financial support to SMEs that have formulated an approved management capability enhancement plan based on the Act for Strengthening the Management of SMEs, etc., such as through the scheme for reducing the fixed assets tax (reduction by one-half over a period of three years) and the loan system of the Japan Finance Corporation (a 0.9% cut from the base interest rate for equipment funds). Additionally, under the FY2017 tax reform, the scope of the scheme for reducing fixed assets tax, for specified regions and industries was expanded to include equipment, fixtures and building accessories. As of the end of December 2017, the scheme has been applied to 44,602 SMEs. (Ongoing)

11. **Taxation scheme for strengthening the management of SMEs [Taxation scheme]**
A measure was taken to provide SMEs that have an approved plan under the Act for Strengthening the Management of SMEs, etc. an immediate depreciation deduction or a 10% tax credit (7% for enterprises with a capital of more than ¥30 million) for their acquisition of facilities needed to strengthen their management capabilities. (Ongoing)

Section 2 Promotion of IT

1. **Investment and loan program for computerizing governmental financial institutions (IT utilization promotion fund)**
[Fiscal investment and loan program]
The JFC provided loans to SMEs to promote the utilization of IT that would contribute to increasing their productivity. Particularly in light of slow investments in security, a measure was taken to reduce the interest rate on loans to enterprises that implement information security measures accompanying IT investments, beginning in fiscal 2017. (In fiscal 2017, loans worth ¥5.13 billion were provided to 391 SMEs (as of the end of December 2017).) (Ongoing)

2. **Support program for introducing IT to increase productivity of services, etc.**
[Fiscal 2017 supplementary budget: ¥50 billion]
To increase SME productivity, support was provided for the introduction of IT that contribute to increasing efficiency in back-office operations and enhancing added-values toward acquiring new customers (increasing sales) (amount of subsidy: ¥150,000 –¥500,000; subsidy rate: 1/2). Additionally, to correct the asymmetric information between IT businesses and SMEs/micro businesses, competition among IT businesses was promoted by disclosing IT tools that also ensure safety and the achievements of businesses that provide those tools. Through the visualization of effective tools and the establishment of schemes for the collection and lateral application of know-how, SMEs and micro businesses were encouraged to accelerate IT investments toward increasing Japan's productivity as a whole. (Ongoing)

3. **Support program for management of SME and micro business settlement information**
[Fiscal 2017 supplementary budget: ¥0.4 billion]
Discussions were begun regarding a framework for demonstrating the efficiency of using IT in settlement operations, from the receiving of orders to making payments, and for disseminating the use of IT to nationwide SMEs. (New)

Section 3 Support for sustainable development of micro businesses

1. **Program for promotion of micro business support [Fiscal 2017 budget: ¥4.94 billion]**
Support for micro businesses was promoted through the "accompaniment" style of support provided by societies and chambers of commerce and industry in line with management development support plans that are certified based on the Revised Small Business Support Act, and support was provided for the formulation of business plans and market development in consideration of demand by micro businesses (no. of undertakings selected: 908).
To encourage business expansion by regional micro businesses aiming to target nationwide markets, societies and chambers of commerce and industry cooperated with businesses to provide wide-ranging support for programs that develop special regional products and tourism and to develop those markets (survey & research businesses: 67; production businesses: 40 (first year) and 28 (second year)). (Ongoing)

2. **Managerial Improvement Loans for micro businesses [Fiscal investment and loan program]**
To provide financial support to micro businesses, the JFC provided unsecured and unguaranteed low-interest loans to micro businesses that receive management guidance from societies and chambers of commerce and industry and prefectural federations of societies of commerce and industry. (In fiscal 2017, a total of 35,514 loans were provided with a total value of ¥216.87 billion (as of the end of December 2017)). (Ongoing)

3. **Micro business management development support loans [Fiscal investment and loan program]**
To support sustainable business development by micro businesses, JFC offered low-interest loans to micro businesses that receive management guidance from societies and chambers of commerce and industry certified under a management development support plan. (In fiscal 2017, a total of 353 loans were provided with a total value of ¥3.68 billion (as of the end of December 2017)). (Ongoing)

4. **Certification of management development support plans based on the Small Business Support Act**
For the nationwide development of a framework for community-based support of micro businesses by nationwide societies and chambers of commerce and industry in cooperation with local governments and financial institutions based on the Small Business Support Act, a cumulative total of 1,127 management development support plans formulated by societies and chambers of commerce and industry have been certified (1,303 societies and chambers of commerce and industry). (Ongoing)

Section 4 Support for overseas expansion by SMEs

1. **Program for supporting overseas expansion by SMEs and micro businesses**
[Fiscal 2017 budget: ¥2.39 billion]
To support overseas expansion by SMEs and micro businesses, the SMRJ and JETRO collaborated in providing strategic support through measures that respond to their needs at various stages of overseas expansion. They included support for the cultivation of overseas companies through the provision of information on overseas market trends and regulations, implementation of feasibility studies, and establishment of an export framework, as well as support for participation in trade fairs in Japan and overseas, support for the cultivation of overseas markets by inviting overseas buyers to Japan, dissemination of the certificate of origin system based on economic partnership agreements, local support once companies advance overseas and support for the formulation of business restructuring plans. (Ongoing)

2. **JAPAN Brand Development Assistance Program [Fiscal 2017 budget: Included in ¥1.35 billion]**
To facilitate overseas expansion by SMEs, support was provided under this program such as for the formulation of strategies built on collaboration among multiple SMEs and the strengths of those SMEs (raw materials, technologies, etc.), product development based on those strategies and participation in overseas trade fairs. (Ongoing)

Section 5 Other support policies for overseas expansion

1. **Global alliance support with medium enterprises and SMEs in Japan**
To support investment tie-ups between medium enterprises and SMEs in Japan and foreign enterprises, a framework was established in which JETRO acts as an intermediary in conveying the requests of foreign enterprises to relevant institutions such as the SMRJ, matching medium enterprises and SMEs in Japan with foreign enterprises, and promoting the utilization of public and private funds. (Ongoing)

2. **Funding for overseas expansion and business restructuring operations**
[Fiscal investment and loan program]

Loans were provided by the JFC to assist with the funding of SMEs that for business reasons need to expand overseas or restructure their overseas business to adapt to structural economic changes. (Ongoing)

3. **Support for overseas subsidiaries to obtain capital, etc.**
Where overseas subsidiaries of SMEs whose management plan was approved under the Act for Strengthening the Management of SMEs, etc. have loans from local financial institutions, the JFC provided guarantees (issued standby credits) for those loans and also provided support for the procurement of funds by those overseas subsidiaries. (Ongoing)

4. **Global Niche Market Top Support Lending Facility [Fiscal investment and loan program]**
To support strategic overseas expansion by medium enterprises and SMEs who are aiming to make a global impact by excelling in a specific field (global niche leader enterprises) and such candidate companies and SMEs, the Shoko Chukin Bank provided long-term, lump-sum repayment and successful interest payment-type loans under the Global Niche Market Top Support Lending Facility. Loans worth a total of ¥580 million were provided to 7 enterprises in fiscal 2017 (as of the end of December 2017). (Ongoing)

5. **Program for cultivation of emerging markets based on technical cooperation**
[Fiscal 2017 budget: Included in ¥4.17 billion]
The following three initiatives were implemented to support Japanese companies acquire emerging markets. (Ongoing)

(1) Support was provided to managers and engineers in developing countries who engage in management, manufacturing, operations, etc., by offering training programs in Japan and guidance by dispatched experts. In fiscal 2017, a training program was held for 995 managers and engineers, and 55 experts were dispatched (as of the end of January 2017).

(2) To resolve the lack of "global human resources" who will play central roles in overseas expansion initiatives, which is an issue among medium enterprises and SMEs, young Japanese workers were given opportunities for overseas internships, and foreign workers were given opportunities for internships in Japanese companies. In fiscal 2017, 62 young Japanese workers were sent overseas, and 120 foreign workers were received by Japanese companies.

(3) Support was provided to Japanese companies engaging in the development of products and services that resolve social issues in developing countries in collaboration with universities, research institutes, NGOs or other companies in developing countries. Subsidies were provided to 7 projects in fiscal 2017.

6. **Utilization of the private-sector collaborative volunteer program and matchups with returned JICA volunteers**
[Fiscal 2017 budget: ¥160 million]
The Japan International Cooperation Agency (JICA) worked toward developing personnel capable of active involvement in the global community by utilizing the private-sector collaborative volunteer program to dispatch employees of private-sector enterprises to developing countries as Japan Overseas Cooperation Volunteers (JOCV) and JOCV Senior Overseas Volunteers in response to the needs of each enterprise. Additionally, to support the employment of returned JICA volunteers, match-ups were promoted between personnel with expert knowledge of a certain developing country and enterprises seeking such personnel. (Ongoing)

7. **Reduction and waiver of fees for credit checks on SMEs using trade insurance**
To support the use of trade insurance by exporting SMEs, Nippon Export and Investment Insurance (NEXI) continued arrangements to acquire and bear the cost of acquiring credit information on business partners that is required for rating SMEs that wish to use trade insurance. Up to three credit checks had been provided for free since 2008, but the number was increased to eight in fiscal 2015. (Ongoing)

8. **Activities to expand and publicize use of trade insurance by SMEs (seminars, consultation events, etc.)**
To promote the use of trade insurance by SMEs, the NEXI website for SMEs was renewed. Instructors from NEXI were sent to lecture in seminars hosted by JETRO and other such organizations and study meetings of affiliated regional banks to raise awareness and encourage wider use of trade insurance. These information sessions aimed to promote greater understanding and dissemination of trade insurance mainly by introducing the exports payment insurance for SMEs and the agriculture, forestry and fisheries industry using videos and manga pamphlets to facilitate better understanding. (Ongoing)

9. **Improvement of access to trade insurance**
In December 2011, NEXI launched the "SME Overseas Business Support Network" in collaboration with 11 regional banks to provide support for overseas business expansion by SMEs. The numbers of cooperating institutions have increased yearly, and in fiscal 2016, a Credit Union Network was established with the participation of credit unions. In fiscal 2017, the addition of a total of 3 new banks and credit unions led to the creation of a network of 117 nationwide financial institutions (as of February 2018). (Ongoing)

10. **Support for security export control**
To ensure effective security trade control based on the Foreign Exchange and Foreign Trade Act, information sessions for companies were held in approximately 100 locations throughout Japan. Additionally, support was provided for the development of voluntary administration structures for security trade control at SMEs that engage in export and the provision of technology, through schemes such as the one-stop general support program for SMEs and micro businesses and the dispatch of specialists in collaboration with the SMRJ and JETRO. (Ongoing)

11. **Promotion of BOP business**
To promote "base of the pyramid" (BOP) business and volume zone business, JETRO provided support to individual enterprises as appropriate to their business phase, by using local coordinators. Additionally, buyers from South Africa, Kenya, Cote d'Ivoire, Bangladesh and Uzbekistan were invited to Japan to hold consultation/business meetings, and subsequently, missions were dispatched to Myanmar and local test marketing was implemented in India. In Africa, an acceptability survey was carried out in Nigeria. (Ongoing)

12. **Program for basic studies, feasibility studies, dissemination and demonstration (ODA matchup program for SME products and technologies)**
[Fiscal 2017 budget: Included in ¥150.5 billion]
This program aims to apply the outstanding products and technologies of Japanese SMEs to the growth of developing countries via ODA, and thereby achieve a balance between the growth of developing countries and economic revitalization in Japan. (Ongoing)

13. **Support for overseas expansion by SMEs (provision of equipment that use SME products)**
[Fiscal 2017 budget: Included in ¥163.1 billion]
Products from Japanese SMEs are donated to developing countries based on request from their governments and development needs, not only to support the development of developing countries, but also to increase recognition of such products. (Ongoing)

14. **New Export Nation Consortium**
[Fiscal 2017 supplementary budget: Included in ¥4.01 billion]
Support organizations such as chambers and societies of commerce and industry, local governments, financial institutions and JETRO were brought together and 473 experts in various fields were assembled (as of March 9, 2018) to provide comprehensive support to medium enterprises and SMEs aiming to expand overseas, including support for the formulation of business plans to support for market cultivation and local business meetings. (Ongoing)

Section 6 Utilization of local resources

1. **Program for supporting hometown specialty products [Fiscal 2017 budget: ¥1.35 billion]**
Support was provided to SMEs and micro businesses that engage in the development of new products and services and the development of new markets by utilizing regional resources and collaborating with agriculture, forestry and fishery businesses. Support was also provided to businesses that pursue product development by utilizing regional resources and collaborating with agriculture, forestry and fishery businesses in the form of information provision concerning consumer preferences surveyed by general incorporated associations and matching services. (Ongoing)

2. **JAPAN Brand Development Assistance Program [Fiscal 2017 budget: Included in ¥1.35 billion]**
To facilitate overseas expansion by SMEs, support was provided under this program such as for the formulation of strategies built on collaboration among multiple SMEs and the strengths of those SMEs (raw materials, technologies, etc.), product development based on those strategies and participation in overseas trade fairs. (Cited earlier) (Ongoing)

3. **Program for promotion of micro business support [Fiscal 2017 budget: ¥4.94 billion]**
Support for micro businesses was promoted through the "accompaniment" style of support provided by societies and chambers of commerce and industry in line with management development support plans that are certified based on the Revised Small Business Support Act, and support was provided for the formulation of business plans and market development in consideration of demand by micro businesses (no. of undertakings selected: 908).
To encourage business expansion by regional micro businesses aiming to target nationwide markets, societies and chambers of commerce and industry cooperated with businesses to provide wide-ranging support for programs that develop special regional products and tourism and to develop those markets (survey & research businesses: 67; production businesses: 40 (first year) and 28 (second year)). (Ongoing)

4. **Designation of traditional crafts**
Under the Act on the Promotion of Traditional Craft Industries (referred to hereinafter as the Traditional Craft Industries Act), the five traditional craft products listed below were designated following surveys and investigations of craft products for which traditional

craft product status has been requested, subject to the views of the Industrial Structure Council.
- "Okuaizu-showa Karamushi Textiles" of Fukushima Prefecture, "Chiba artisan tools" of Chiba Prefecture, "Tokyo Plain Dyeing" of Tokyo, "Etchu-fukuoka Sedge Hats" of Toyama Prefecture and "Sanshu Onigawara Crafts" of Aichi Prefecture were designated on November 30, 2017. (Ongoing)

5. Traditional Craft Product Subsidy Program [Fiscal 2017 budget: ¥1.11 billion]

Based on the Traditional Craft Industries Act, the following support was provided to promote the traditional crafts industries below. (Ongoing)

(1) Subsidization of the following programs undertaken by local manufacturing cooperatives and associations:
- Successor training programs
- Raw materials sourcing programs
- Design development programs
- Partnership development programs
- Local producer programs, etc.

(2) Subsidization of the following programs undertaken by general incorporated associations and incorporated foundations under Article 23 of the Traditional Craft Industries Act:
- Programs to secure human resources and ensure transmission of skills and techniques
- Production district guidance programs
- Promotional programs
- Demand development programs, etc.

6. Promotion of local brands

To promote the use of local brands of traditional crafts to attract tourists to the production regions of traditional crafts and to cultivate markets overseas, support was provided for initiatives to invite designers and other outside talent to production regions of traditional crafts. (Ongoing)

7. Program to promote the spread of traditional crafts

To promote public awareness of traditional crafts, November every year has been designated Traditional Crafts Month, and activities such as the national convention of the Traditional Crafts Month National Assembly are held to spread and increase awareness of traditional crafts. In fiscal 2017, the national convention was held in Tokyo. (Ongoing)

8. Local 10,000 Project (subsidies for business generating regional economic activity [Fiscal 2017 budget: Included in ¥1.87 billion]

To support the startup of region-based enterprises with large employment absorption capacity by making use of regional assets and funding (drawn from regional financial institutions, etc.) through the collaboration of industry, academia, financial institutions and government, subsidies were granted to cover part of the cost of subsidies provided by local public organizations for expenditure required by private sector businesses at the business establishment phase. (Ongoing)

Section 7 Support for market and demand cultivation

1. Program for promotion of micro business support [Fiscal 2017 budget: ¥4.94 billion]

Support for micro businesses was promoted through the "accompaniment" style of support provided by societies and chambers of commerce and industry in line with management development support plans that are certified based on the Revised Small Business Support Act, and support was provided for the formulation of business plans and market development in consideration of demand by micro businesses (no. of undertakings selected: 908).

To encourage business expansion by regional micro businesses aiming to target nationwide markets, societies and chambers of commerce and industry cooperated with businesses to provide wide-ranging support for programs that develop special regional products and tourism and to develop those markets (survey & research businesses: 67; production businesses: 40 (first year) and 28 (second year)). (Ongoing)

2. Support package programs for micro businesses [Fiscal 2017 supplementary budget: ¥12 billion]

Support was provided to micro businesses for the cost of creating a management plan and cultivating markets in concert with societies and chambers of commerce and industry (micro business sustainability subsidy).

Micro businesses were also supported in their initiatives to create a management plan through the use of locally-based societies and chambers of commerce and industry that possess a nationwide network, and subsidies were provided to cover the costs of cultivating markets based on the management plan (micro business sustainability subsidy). Support was also provided to help micro businesses cultivate wide-area markets beyond their existing trade area by organizing specialty product fairs and business meetings and promoting sales via antenna shops and online sales. Furthermore, to strengthen the management capabilities of micro businesses, support was provided to an initiative to dispatch supervisors from nationwide organizations to provide guidance and education toward raising the supporting abilities of management advisors. (Ongoing)

3. Support for cultivation of markets through exhibitions, business meeting events, and other events

The SMRJ provided support for the development and expansion of markets for products and services developed by SMEs and micro businesses through agricultural-commercial-industrial collaborations or by using local resources, by organizing exhibitions, business fairs, and other such events. (Ongoing)

4. **Market Development Coordination Program**
Market development experts with experience of working at trading companies, manufacturers, etc. ("market development coordinators") assigned to the SMRJ helped SMEs with newly developed products, technologies, and services gain a foothold in new markets and acquire the capacity for market cultivation through the implementation of test marketing activities in the wider Tokyo and Kinki regions. (Ongoing)

5. **Support program for market cultivation**
The SMRJ supported the market cultivation initiatives of SMEs and venture enterprises by promoting business match-ups between enterprises participating in SMRJ-sponsored trade fairs or concurrent events and buyers, and providing advice. (Ongoing)

6. **Support for creation of new businesses**
Close, integrated support was provided to SMEs and other entities engaging in new business by stationing experts in marketing and other areas of business in the 10 nationwide branches and offices of the SMRJ to help formulate business plans based on the Act for Strengthening the Management of SMEs, etc., the Regional Resource Utilization Promotion Act, and the Agricultural-Commercial-Industrial Collaboration Promotion Act. (Ongoing)

7. **J-GoodTech**
The SMRJ provided support to SMEs seeking to cultivate markets in and outside of Japan, by connecting them to major domestic manufacturers and overseas enterprises via a website that posts information about Japanese SMEs boasting top-niche and only-one technologies and products. (Ongoing)

Section 8 Revitalization of shopping districts and city centers

1. **Comprehensive support for the revitalization of local shopping districts**
Pursuant to the Local Shopping District Revitalization Act, support measures were established for shopping districts with a government-approved revitalization project plan. (Ongoing)

2. **Development of human resources by the Japan Shopping District Support Center**
Support was provided in the form of personnel training and transfer of expertise by the Japan Shopping District Support Center, an organization established jointly by four SME associations. (Ongoing)

3. **Program to support the operation of Councils for the Revitalization of City Centers**
Support was provided for the provision of advisory services, provision of information via websites and e-mail newsletters, and development of networks through organization of exchange events led by councils for the revitalization of city centers support center established in the SMRJ to assist the establishment and operation of such councils for the revitalization of city centers. In fiscal 2017 (as of the end of January 2018), the councils received 103 cases of consultation. (Ongoing)

4. **Program to dispatch advisers for city center and shopping district revitalization**
Experts in a range of fields related to commercial revitalization registered with the SMRJ were dispatched to help tackle various challenges faced by councils for the revitalization of city centers and shopping districts. In fiscal 2017 (as of the end of January 2018), experts were dispatched to 31 regions. (Ongoing)

5. **Consultation and support for commercial revitalization in city centers**
In order to assist commercial revitalization initiatives being undertaken in city centers by councils for the revitalization of city centers and similar organizations, seminar planning support and instructors was supplied and advice, analyses, assistance with identification of issues, and information, etc. were provided to raise the efficacy of individual projects using the SMRJ. In fiscal 2017 (as of the end of January 2018), seminars were held in 11 regions, and expert advice was provided in 19 regions. (Ongoing)

6. **Funding for enhancing the vitality of enterprises (for the distribution and service industries) [Fiscal investment and loan program]**
Japan Finance Corporation (JFC) provided loans for funds needed to modernize management and rationalize the distribution systems of SME commercial businesses and service businesses, and to address the issue of vacant stores. In fiscal 2017 (as of the end of December 2017), loans worth ¥87.21 billion were provided to 10,286 undertakings. (Ongoing)

7. **Support for increasing the ability of shopping districts and town centers to attract customers [Fiscal 2016 supplementary budget: ¥1.5 billion]**
Support was provided to projects that lead to the development of a medium to long-term growth foundation in shopping districts and city centers,

such as projects for developing facilities that capture foreign tourist demand and projects for introducing high-security IC point cards to stimulate consumer spending in shopping districts. 70 projects were adopted by the support program for attracting more customers to shopping districts, and 4 projects were adopted by the support program for attracting more customers to town centers. (Ongoing)

8. **Program to support commercial revitalization in local communities and town centers**
[Fiscal 2017 budget: ¥1.78 billion]
Support was provided to initiatives such as for providing childcare and elderly care services in shopping districts, attracting businesses to vacant stores, and developing commercial complex in city centers. In fiscal 2017, 23 survey and analysis projects and 28 support projects were adopted by the program for promoting commercial independence in local communities; 10 projects were adopted by the support program for model cooperation among individual stores; 12 survey projects and 6 pioneering demonstration projects were adopted by the program for strategic reconstruction of city centers; and 26 projects were adopted by the program for supporting the utilization of specialist personnel. (Ongoing)

9. **Program for creating spaces for the utilization of local cultural resources**
[Fiscal 2017 supplementary budget: Included in ¥5.85 billion]
Support was provided for the initiatives of shopping districts and city centers to promote consumption by foreign tourists by utilizing local cultural resources. (Ongoing)

10. **Taxation measures to revitalize central urban districts [Taxation scheme]**
For immovable property acquired under the "Certified specific private sector central urban district economic activity improvement program plan" set up under the revisions to the Act on the Vitalization of City Centers, a measure was implemented that halves the registration and license tax payable when registering the preservation of ownership of that immovable property. (Ongoing)

Section 9 Strengthening management support frameworks

1. **Programs promoting measures to support cooperative SME organizations**
[Fiscal 2017 budget: ¥680 million]
Where partnerships or other associations work on management innovation and/or reforms through the National Federation of Small Business Associations, which is a dedicated agency assisting cooperative SME organizations, support was provided that includes partial subsidies for the costs of implementing those innovations or reforms, along with training for instructors. Support was also provided for optimizing the activities of associations (supervision organizations) that engage in the training of foreign intern trainees. (Ongoing)

2. **Support for capital investment through advancement programs integrated with business support**
Where SMEs work jointly to establish business cooperatives in order to shore up their administrative platforms and improve their business environment, the SMRJ and prefectural governments collaborated to provide diagnoses and advice on business plans together with long-term, low-interest (or interest-free) loans to fund the required capital expenditure. (Ongoing)

3. **One-stop comprehensive support programs for SMEs and micro businesses [Fiscal 2017 budget: ¥5.48 billion]**
"Yorozu support centers" have been set up in each prefecture as one-stop consultation centers for SMEs and micro businesses facing various management issues, to provide professional detailed advice and to dispatch specialist advisors to deal with particularly advanced and specific management issues. (From the commencement of the program to January 2018, the centers have responded to some 690,000 consultations.) (Ongoing)

4. **Local benchmarks**
To promote the utilization of local benchmarks, the Local Benchmark Utilization Strategy Conference introduced case studies on the use of local benchmarks that have led to management improvement, productivity increases and smooth business succession in companies that have introduced IT, and discussed measures for the further enhancement of relevant tools. Additionally, the effectiveness of using local benchmarks when holding dialogues between supporting organizations and local economy driving businesses was set forth in the guidelines of the basic plan based on the Regional Future Investment Promotion Act (August 2017), and seminars were held at commerce and industry organizations featuring case studies on the use of local benchmarks by corporate managers. (Ongoing)

Section 10 Other regional revitalization measures

1. **Promotion of regional future investment**
To revitalize regional economies, companies expected to play a central role in the regions were selected for support as "driving companies for the regional future," and projects that have a large ripple effect on regional economies were selectively supported by fully applying the budgetary, taxation and deregulation measures of the Regional Future Investment Promotion Act. (Ongoing)

2. **Taxation scheme to strengthen the regional location of enterprises [Taxation scheme]**
In order to revitalize the regions, it is necessary to correct the over-concentration of population and industry in Tokyo and create good quality employment in the regions. Toward this end, enterprises were encouraged to relocate their head office functions (offices, research institutions, training centers) from Tokyo to the regions or to expand their business in the regions, by giving certified enterprises a choice of either a 15% special depreciation deduction on the cost of acquisition of an office building (25% in the case of relocation) or a 4% tax credit on the cost of acquisition (7% in the case of relocation), and offering enterprises that create employment in the region a special measure under the taxation scheme to promote employment and a local tax grant related to strengthening regional corporate centers. Under the fiscal 2017 tax reform, the measure to raise the tax credit rate for office taxes was extended, the taxation system to promote employment was enhanced, the requirements for business relocations were relaxed, and the measure to cover revenue decreases using the local allocation tax was strengthened. (Ongoing)

3. **Program for creation and support of regional core enterprises**
[Fiscal 2017 budget: ¥2.5 billion]
To support the initiatives of potential regional core enterprises to foray into new sectors or businesses and promote their growth, support was provided for the creation of nationwide networks with external resources (universities, cooperating enterprises, financial institutions, etc.) using support personnel. Additionally, for further growth of regional core enterprises, support personnel provided hands-on support for formulating business strategies, cultivating markets, and other such business activities. Furthermore, support was provided for the formulation of business strategies and the cultivation of markets with an eye to the global market, through the Global Network Council composed of global coordinators who are experts in businesses that are suitable for the global market. (Ongoing)

4. **Promotion of initiatives for the creation of regional core city spheres**
[Fiscal 2017 budget: Included in ¥130 million]
Projects to support the creation of regional core city spheres were commissioned under national expenditure, and regional fiscal measures were applied to core cities and municipalities that have formulated a regional core city sphere vision, to support initiatives that contribute to driving economic growth in the sphere as a whole, consolidating and strengthening high-level city functions, and improving lifestyle-related functions and services. As of the end of January 2018, regional core city spheres have been created in 24 regions. (Ongoing)

5. **Fund for productivity improvement in the tourism industry, etc.**
[Fiscal investment and loan program]
To revitalize the Japanese economy by improving productivity in the tourism industry, etc. and increasing tourism consumption, JFC provided loans to SMEs that provide high-quality services, etc. Loans worth ¥97 million were provided to six SMEs in fiscal 2017 (as of the end of December 2017). (Ongoing)

6. **Loan program for supporting regional core enterprises**
[Fiscal investment and loan program]
Medium enterprises and SMEs that are core regional presences having a certain influence on their regional economy were supported in their initiatives to achieve innovation such as by advancing into a new sector or making strategic initiatives for management improvement. Under a loan program for supporting regional core enterprises, the Shoko Chukin Bank provided long-term, lump-sum repayment and successful interest payment-type loans to such enterprises. In fiscal 2017, loans were provided to 6 enterprises, worth a total of ¥500 million (as of the end of December 2017). (Ongoing)

7. **Loan system for supporting regional collaborations**
[Fiscal investment and loan program]
Business cooperative associations and enterprise partnerships that utilize local resources were provided loans to develop a new business, utilize local resources, form a business tie-up or restructure their organization, through a loan system that provides long-term, lump-sum repayment and successful interest payment-type loans via the Shoko Chukin Bank. In fiscal 2017, 3 loans were provided, worth ¥180 million (as of the end of December 2017). (Ongoing)

Chapter 2 Increasing the numbers of vibrant leaders

Section 1 Support for business startups

1. **Subsidy for businesses that support business startups**
[Fiscal 2017 budget: Included in ¥1.1 billion]
Support was provided to startup support businesses that engage in business to support startups of designated businesses under the Industrial Competitiveness Enhancement Act, where they provide startup support services based on an approved business startup support plan (also in response to startup needs stemming from dual occupations and side businesses) or undertake initiatives to enhance the quality of their startup support services. (Ongoing)

2. **New Startup Loan Program [Fiscal investment and loan program]**
JFC provided unsecured, unguaranteed loans to persons starting a new business and persons who have just started up in business. (Ongoing)

3. **Funding for supporting renewed startups (lending-support schemes for renewed startups) [Fiscal investment and loan program]**
By assessing the managerial qualifications of entrepreneurs who have failed in business and their business prospects, the JFC offered loans to candidates who faced difficult circumstances in relaunching their businesses. (Ongoing)

4. **Guarantees for founders**
To boost lending to startup entrepreneurs by private financial institutions, a guarantee program was implemented, which specifically encourages credit guarantee corporations to provide guarantees to individuals who are starting up in business or who started up in business less than five years ago. (Ongoing)

5. **Fund Investment Program (Startup Support Fund, SME Growth Support Fund)**
The creation of investment funds operated by private sector investment companies to stimulate private funds was promoted through investment by the SMRJ (up to one half of the total value of the fund concerned) with the aim of expanding the range of opportunities for investment in ventures (SMEs) at the startup or early growth stage and in SMEs pursuing growth through the development of new business. The Startup Support Fund now consists of 100 cumulative funds with a total cumulative investment of ¥182.4 billion invested in 2,532 enterprises (as of the end of March 2017). The SME Growth Support Fund now consists of 94 cumulative funds with a total cumulative investment of ¥611.8 billion invested in 1,174 enterprises (as of the end of March 2017). (Ongoing)

6. **Program for strengthening cooperation in the global venture ecosystem**
[Fiscal 2017 budget: ¥350 million]
Intended for entrepreneurs and potential in-house entrepreneurs who are in charge of cultivating new businesses in large enterprises, this program aimed to develop human resources who could create new businesses from a high perspective, such as with an eye to advancing into global markets or resolving social issues, and create networks with local parties, by sending them to Silicon Valley and other such locations that lead the world as advanced innovation regions. In addition, through the Venture Business Creation Council, composed mainly of entrepreneurs, venture support personnel and large enterprises, the program promoted business matchings and provided forums for creating broad networks, awarded the Prime Minister's Award to venture enterprises that have made a significant contribution to creating innovation, and established a foundation for the creation of new businesses. (Ongoing)

7. **Program for discovery of potential entrepreneurs**
[Fiscal 2017 budget: Included in ¥1.1 billion]
Under this program, business startup schools that offer a certain level of curriculum specified by the government were granted official recognition, and support was provided for the acquisition of basic entrepreneur knowledge.
Additionally, a nationwide business plan contest was held from the perspective of discovering potential entrepreneurs and increasing the number of entrepreneurs throughout the regions in Japan in the future. (Ongoing)

8. **Angel tax system [Taxation scheme]**
This system assists in the financing of newly founded venture enterprises by individual investors ("angels") by allowing individual investors who invest in an SME that satisfies certain requirements to receive a preferential treatment on income tax when the individual investor makes such an investment and when shares in that enterprise are transferred. (Ongoing)

9. **Taxation measures to promote venture investment in enterprises [Taxation scheme]**
This initiative allows companies that invest in a

venture enterprise through a venture fund certified by the Minister for Economy, Trade and Industry under the Industrial Competitiveness Enhancement Act (restricted to cases in which more than 50% of the amount invested is invested in venture enterprises located in the regions) to accumulate provisional funding for losses of up to 50% of the amount invested and write off that fund as expenses.
From the establishment of the system in fiscal 2013 through to the end of January 2018, nine investment plans based on the venture fund have been approved. (Ongoing)

10. Management Innovation Support Program
Support was provided for new business activities undertaken by SMEs through mechanisms such as low-interest loan programs and special credit guarantees for the implementation of approved management innovation plans prepared by SMEs planning to engage in new business activities to improve their business performance under the Act on Strengthening the Management of SMEs, etc. (Ongoing)

11. Construction of startup support system in the regions
To promote business startups in the regions, entrepreneurs receiving startup support based on a startup support business plan that has been created in cooperation between a municipality and private startup support business under the Industrial Competitiveness Enhancement Act and approved by the central government were supported in the form of expanded credit guarantees and taxation measures (reduction of registration and license tax by one-half). Startup support businesses were also supported in the form of credit guarantees. (Ongoing)

12. Local 10,000 Projects (Subsidies for business generating regional economic activity)
[Fiscal 2017 budget: Included in ¥1.87 billion]
To support the startup of region-based enterprises with large employment absorption capacity by making use of regional assets and funding (drawn from regional financial institutions, etc.) through the collaboration of industry, academia, financial institutions and government, subsidies were granted to cover part of the cost of subsidies provided by local public organizations for expenditure required by private sector businesses at the business establishment phase. (Ongoing)

13. Construction of support networks among female entrepreneurs
[Fiscal 2017 budget: Included in ¥190 million]
To support business startups by women, best practices of support were disseminated through a female entrepreneur support contest, events for spreading the knowledge of entrepreneurship to potential entrepreneurs were held, and a support environment that responds to the wide variety of needs of women was developed, through female entrepreneur support networks that have been created in ten nationwide locations as of fiscal 2016, composed mainly of local financial institutions, industrial support organizations, and startup support organizations. (Ongoing)

14. Lifelong startup support subsidy
[Fiscal 2017 budget: ¥350 million]
To create employment opportunities for middle-aged and older people and promote the realization of a society where people can remain active throughout their lives, a subsidy was provided to middle-aged and older entrepreneurs to cover part of the expenses required to start a business, including the costs of recruiting and employing workers and providing education and training. (Ongoing)

15. Subsidy for business startups and succession (Startup)
[Fiscal 2017 budget: Included in ¥1.1 billion]
A subsidy was provided to entrepreneurs for the cost of starting a business that provides new products or services and creates new demand in the regions. A subsidy was also provided to SMEs attempting to innovate or transform a business on the occasion of inheriting a business, by funding part of the cost needed for capital investment, market expansion or for the closing of an existing business. The startup subsidy required such businesses to create employment for at least one worker during the program implementing period. (Ongoing)

16. SME and micro business management enhancement loan/guarantee program
[Fiscal investment and loan program]
JFC provided loans for funds needed to strengthen the management and fund procurement capabilities of SMEs that engage in business innovation or the cultivation of new fields in cooperation with SMEs in other sectors based on the guidance and advice of a certified business innovation support organization. (Ongoing)

Section 2 Support for business succession

1. Support program for SME revitalization and business succession (Business succession support)
[Fiscal 2017 budget: Included in ¥6.11 billion]
Business Succession Support Centers established within an approved support organization in each prefecture provided information and advice on business succession to SMEs and micro businesses

facing the problem of lack of successor, and also provided support for business match-ups through M&A and other such schemes. Between April and December 2017, the centers responded to 6,340 consultations and successfully resolved 489 cases. (Ongoing)

2. **System of deferral and exemption of payment of inheritance tax and gift tax on non-listed shares (business succession taxation scheme)**
[Taxation scheme]
The business succession taxation scheme is designed to help successors acquire shares and other assets in non-listed companies from their predecessors, whether through inheritance, gift, or testamentary gift. The scheme works by allowing the deferral of payment of inheritance tax and gift tax on the premise that the successor who is approved by the prefectural government will continue the business and, in certain circumstances (e.g., the death of the successor), exemption from payment of the tax for a grace period. Approvals to qualify for this scheme commenced in fiscal 2009, and as of the end of December 2017, 1,183 approvals had been granted for inheritance tax and 864 approvals had been made for gift tax. (Ongoing)

3. **Small Enterprise Mutual Relief System**
The Small Enterprise Mutual Relief System is a system in which small enterprise owners and corporate officers pay installments that are put aside and paid out as mutual relief money when they enter the market or retire from business. It is essentially a retirement allowance system for managers of small enterprises. As of the end of December 2017, the system had a membership of 1.371 million, and as many as 81,000 new members from April to December 2017. (Ongoing)

4. **Comprehensive support under the Management Succession Facilitation Act**
The Act on Facilitation of Succession of Management of Small and Medium Sized Enterprises incorporates comprehensive support for business successions, involving special treatment under the Civil Code to resolve the constraints on legally secured portions of successions. By the end of December 2017, 166 confirmations of qualification for this special treatment had been granted by the Minister of Economy, Trade, and Industry. (Ongoing)

5. **Support to facilitate business successions**
For wide-ranging and in-depth support for SME business successions throughout Japan, various events were held to provide training for SME support providers and raise SME proprietors' awareness through business succession forums. (Ongoing)

6. **Support program for business startups and succession (Program for the creation of business succession networks)**
[Fiscal 2017 budget: Included in ¥1.1 billion]
By creating business succession networks in the regions through support organizations based in each prefecture in cooperation with local government bodies, business succession support was provided to 19 regional prefectures. (Ongoing)

7. **Support program for business startups and succession (Subsidy for business succession)**
[Fiscal 2017 budget: Included in ¥1.1 billion]
To revitalize regional economies from the perspective of promoting generational changes and revitalization of SMEs that face such issues as the aging of their managers, a subsidy was provided to SMEs to fund the cost of new initiatives to innovate or transform their business on occasion of inheriting the business (including the inheritance of business accompanying revitalization). (Ongoing)

Section 3 Human resource and employment measures

1. **Program to support regional SMEs acquire human resources**
[Fiscal 2017 budget: Included in ¥1.67 billion]
To help SMEs and micro businesses with few management resources acquire human resources, support was provided for the acquisition of human resources, namely in excavating, introducing and retaining human resources that are sought by local SMEs and micro businesses, from within and outside the region. (Ongoing)

2. **Support program for development of core human resources in SME service industries**
[Fiscal 2017 budget: ¥95 million]
To develop and secure next-generation managers, the program matched up next-generation management personnel in SME services industries with outstanding enterprises and organized hands-on training (intensive training) to provide an opportunity for them to experience the key to business success. Up to fiscal 2016, the program placed a certain amount of burden on both SME service industries and outstanding enterprises, as it required a full two weeks of training, which also included prior learning and a results presentation, but in fiscal 2017, the program offered greater flexibility by providing training over a minimum of three days (excluding prior learning and results presentation). Efforts were also made to present a clear picture what the intensive training entails and the results that can be expected, by introducing scenes and the results of training. (Ongoing)

3. **Smart manufacturing support program**
[Fiscal 2017 budget: Included in ¥1.67 billion]
The program aimed to promote productivity improvement and new business cultivation by SMEs and micro businesses in manufacturing industries by implementing training that provides versatile leadership skills to human resources having rich experience in the production field and those possessing knowledge of IoT and robots, and by dispatching these trained leaders to SMEs and micro businesses. In fiscal 2017, the program was implemented in 25 nationwide locations. (Ongoing)

4. **Program for development of core human resources in manufacturing industries**
[Fiscal 2017 budget: ¥27 million]
With the aim of promoting the handing down of technologies and skills, the program provided a subsidy to cover part of the expenses that core human resources in SME and micro business manufacturing industries require to attend training programs for enhancement of their skills and technology. (Ongoing)

5. **Support for human resource development in SMEs and micro businesses (Program for development of Kaizen leaders)**
[Fiscal 2017 budget: Included in ¥19.5 million]
The program aimed to develop a foundation for enabling human resources in the service industries to acquire the knowledge, language and other service skills that they need to demonstrate advanced hospitality to customers. Toward this end, a school for service skills acquisition was established and operated, and a curriculum for teaching skills needed in the services industry was created, including the formulation of a standard for hospitality skills.
In fiscal 2017, the subsidy rate was changed from 2/3 (fiscal 2016) to 1/2. (Ongoing)

6. **Program for development of human resources to support micro businesses**
[Fiscal 2017 budget: ¥1.67 billion]
Training for improving business guidance skills was provided nationwide by business leaders in societies and chambers of commerce and industry. (Ongoing)

7. **Program for development of human resources to support SMEs**
[Fiscal 2017 budget: ¥115 million]
Town managers who drive community development initiatives were developed by providing classroom training and practical internship training on business startup and management skills and skills that are particularly required for community development, such as vacant store countermeasures and consensus building methods. (Ongoing)

8. **Human resource development program at the Institute for Small Business Management and Technology**
At the Institute for Small Business Management and Technology located in nine nationwide locations, training was provided that leads directly to the solution of business challenges faced by corporate managers and operations managers of SMEs. Additionally, training programs were increased to improve the attendance of local businesses, and advanced practical programs were introduced on a trial basis. (Ongoing)

9. **Support program for development of hometown producers**
[Fiscal 2017 budget: Included in ¥1.35 billion]
Support was provided to initiatives that aim to develop attractive products that involve local people and local resources into local brands and initiatives for developing human resources who could become central players in the cultivation of markets with a focus on overseas markets. (Ongoing)

10. **Measures to maintain workers' employment**
[Fiscal 2017 budget: ¥7.95 billion]
Employment Adjustment Subsidies were provided to assist employers who were forced to downsize due to fluctuations in business conditions or other economic reasons but who have kept workers on by allowing workers to take temporary leave from work or enter training, or by transferring workers. Active steps were also taken to prevent fraudulent receipt of these subsidies, and efforts were made to ensure more appropriate disbursement by such means as actively carrying out on-site checks and publishing the names of employers who have committed fraud. (Ongoing)

11. **Support for improvement of employment management toward the creation of attractive employment**
[Fiscal 2017 budget: ¥10.8 billion]
To support corporate initiatives to improve their employment management and create attractive employment, the subsidy for supporting workplace retention was provided to SME organizations (business cooperatives, etc.) having improvement plans certified by the relevant prefectural governor pursuant to the Act on the Promotion of Improvement of Employment Management in Small and Medium-Sized Enterprises for Securing Manpower and Creating Quality Jobs, where they have implemented projects to improve their working environment. Additionally, the subsidy was provided to SMEs and micro businesses that introduced and implemented a new employment management system by changing their labor agreements and workplace regulations or lowered the job separation rate of their employees. Similarly, it was applied to businesses that introduced

assistive nursing care devices and lowered the job separation rate of their employees, and to business owners of nursing care or childcare services who lowered the job separation rate of their employees by developing a proper wage system. (Ongoing)

12. Project for promoting the improvement of employment management plans to secure human resources in sectors that lack personnel [Fiscal 2017 budget: ¥540 million]

Support was provided for the creation of attractive workplaces, such as by supporting the introduction of employment management systems, in cases where business owners in sectors that lack personnel improve employee benefits and working environment or otherwise take measures to improve employment management and secure human resources. (Ongoing)

(1) Model survey course

In sectors where employment management issues that need to be addressed by business owners are not yet clear, fine-tuned consultation was provided to business owners facing an employment management issue, to help them introduce and operate various models of employment management systems that contribute to resolving their issue. Case examples of model initiatives obtained in this process of consultation were examined and analyzed in terms of their introduction effect and knowhow, and effective employment management improvement policies were explored based on the characteristics of each sector and widely disseminated for awareness-raising.

(2) Practical awareness-raising course

Among sectors that lack sufficient personnel, business owners in the construction sector who face an issue in implementing improvement measures for employment management were offered consultation support by advisors for employment management improvement, with the aim of promoting practical employment management improvement within the entire industry.

13. Regional employment development subsidy (regional employment development course) [Fiscal 2017 budget: ¥3.39 billion]

To create and provide stable regional employment, employers who build or establish an office in regions, etc. where employment opportunities are particularly lacking and who also employ regional job seekers were offered a regional employment development subsidy (regional employment development course) in accordance with the cost of their establishment and the number of workers they employ. (Ongoing)

14. Employment creation project for regional revitalization [Fiscal 2017 budget: ¥5.12 billion]

To promote initiatives aimed at creating favorable and stable employment opportunities, an employment creation project for regional revitalization was launched in support of prefectures that endeavor to create employment for regular employees in conjunction with industrial policies. (Ongoing)

15. Tax system to promote employment [Taxation scheme]

Where business owners satisfy certain requirements and create high-quality employment (fulltime, non-fixed term employment) in regions that lack employment opportunities (Employment Development Promotion Regions based on the Act on Promotion of Job Opportunities in Certain Regions) in each fiscal year starting between 1 April 2016 and 31 March 2018, a tax measure was implemented that provides a tax credit of ¥400,000 for each increase in employee. (Ongoing)

16. Promotion of employment shifts with no loss of employment [Fiscal 2017 budget: ¥9.67 billion]

Under the subsidy for supporting employment shifts (re-employment assistance payment), funds were provided to business owners who employ the services of a private-sector employment agency to support the re-employment of employees who unavoidably lose their jobs due to business downsizing, etc. (workers who fall under a re-employment support plan).

Additionally, funds that are provided to growth enterprises that build capacities and increase the wages of workers who fall under a re-employment support plan or workers who have transferred from a different company were expanded, and funds were also provided to growth enterprises that expand their employment of mid-career recruits upon developing an ability assessment, wage and treatment system for mid-career recruits. (Ongoing)

17. Welfare Worker Recruitment Project [Fiscal 2017 budget: ¥1.63 billion]

To ensure a stable supply of high-quality personnel capable of supporting services in the welfare sector (nursing, healthcare and day care), support was provided through services such as in-depth vocational counseling, job placements and counseling and advice for employers, to be provided mainly at a "Welfare Worker Corner" set up in key "Hello Work" centers throughout the country. (Ongoing)

18. Promotion of the Youth Support Project [Fiscal 2017 budget: Included in ¥720 million]

SMEs that display a positive attitude toward recruiting and developing young workers and actively publicize information about their company were designated as "youth support companies" and encouraged in their effort to disseminate information. (Ongoing)

19. "Youth Yell" certification system based on the Act on Promotion of Youth Employment [Fiscal

2017 budget: Included in ¥720 million]
Based on the Act on Promotion of Youth Employment (1970 Act no. 98), the Minister of Health, Labour and Welfare certifies SMEs that display outstanding employment and management of youths as "youth yell" certification enterprises. By encouraging the information dissemination efforts of SMEs, the system supports the smooth employment of human resources sought by certified enterprises. (Ongoing)

20. Subsidy for employment and development of designated job seekers (course for employment and development of long-term unstable workers)
[Fiscal 2017 budget: ¥530 million]
A subsidy for employment and development of designated job seekers (course for employment and development of long-term unstable workers) was provided to business owners who employ workers who have repeatedly changed jobs as freeters after having missed the opportunity to find employment as regular employees (long-term unstable workers) during the "employment ice age," as regularly employed workers by introduction from an employment agency. (Ongoing)

21. Subsidy for employment and development of designated job seekers (course for employment and retention of non-new graduates within three years after graduation, etc.)
[Fiscal 2017 budget: ¥1.83 billion]
To expand, establish and promote employment application opportunities among non-new graduates and dropouts as new graduates, a subsidy for employment and development of designated job seekers (course for employment and retention of non-new graduates within three years after graduation, etc.) was provided to business owners who put a call out for new graduate job seekers to which non-new graduates, etc. can apply, employ a non-new graduate, etc. as a new graduate for the first time, and retain them for a certain period of time. (Ongoing)

22. Support for SMEs and micro businesses in raising the minimum wage
[Fiscal 2017 budget: ¥1.2 billion]
The following support measures were provided to increase the productivity of SMEs and micro businesses, toward raising the minimum wage.
(1) "Comprehensive Minimum Wage Advice and Assistance Centers" were established throughout Japan (47 locations) as a one-stop portal for consultation on management reforms and work condition management, and provided consultation and dispatched experts free of charge.
(2) Subsidies were provided to national and prefectural industry-specific SME organizations to cover the cost they required to implement initiatives for increasing productivity, such as by conducting market surveys and developing new business models for expanding their market with an eye to increasing wages.
(3) Subsidies were provided to SMEs and micro businesses in 47 nationwide prefectures, to cover part of the capital investment they made to increase labor productivity and increase the wages of workers who work for less than ¥1,000 an hour in their business establishments by more than a certain amount (subsidy rate of 7/10 (3/4 for micro businesses with a workforce of 30 or less)). (Ongoing)

23. Dissemination and promotion of career consulting services
The utilization of career consulting (offering advice and guidance in response to consultations concerning occupational selection by workers, occupational life planning, or the development and improvement of occupational capacities) was disseminated and promoted in private employment agencies, employment support organizations, personnel management and human resource development departments in companies, and career education in schools. In April 2016, career consultants who engage in career consulting as a specialty were designated as a national qualification, so efforts were made to disseminate the qualification. Additionally, the introduction of a "self-career examination" was promoted among enterprises as a scheme for offering regular career consultation opportunities at certain junctions of their employees, such as age, number of years in employment, promotion to a post, etc., to support employee awareness of career development. (Ongoing)

24. Taxation scheme to promote income expansion
A scheme was applied that provides enterprises whose (1) total amount of salaries and other amounts paid have increased from fiscal 2012 at a certain rate or more, (2) total amount of salaries and other amounts paid exceed that of the previous business year, and (3) average salary and other amounts paid exceed that of the previous business year a 10% tax credit on the amount of increase in salary and other amounts paid from fiscal 2012 (up to 10% of corporate tax (20% for SMEs)). Additionally, under the fiscal 2017 tax reform, SMEs became eligible to receive an additional 12% tax credit on the amount of increase in salary and other amounts paid from the fiscal year in cases where average salary and other amounts paid have increased by more than 2% from the previous fiscal year. (Ongoing)

Chapter 3 Development of a stable business environment

Section 1 Improvement of transaction conditions

1. Improvement of the transaction conditions of SME subcontractors

Based on the "Basic Policies for Future-oriented Trade Practices" (Seko Plan) that was released in September 2016 as a package of measures for improving transaction conditions, 21 organizations in 8 industries including the automobile, electronic equipment and information and communication equipment industries, formulated and announced voluntary actions plans for promoting fair trade and enhancing added values by the end of March 2017. In May 2017, the organizations conducted a follow-up survey based on the guidelines on conducting a follow-up of the voluntary action plans issued by the SME Agency. Meanwhile, in April 2017, some 80 "subcontract G-men" were assigned nationwide and interviewed more than 2,000 subcontractor SMEs over a year. The results of the follow-up survey conducted by industrial organizations and the results of the interviews undertaken by subcontract G-men were compiled and announced in December 2017. Upon a comparison of the results of the two surveys, industries in which improvements appeared to lag were urged to promote further initiatives after January 2018. At the same time, initiatives were also launched to expand the scope of industries with voluntary action plans (machinery manufacturing, distribution, security, and broadcast contents industries).

The Liaison Council of Ministries and Agencies Concerned with the Improvement of the Transaction Conditions of SME Subcontractors, which was established in December 2015, convened twice in fiscal 2017 (total of 13 times). The decisions it made were taken over by the Liaison Council of Ministries and Agencies Concerned with Improving the Vitality of SMEs and Micro Businesses that was established in September 2017 to examine issues for promoting workstyle reforms (correction of long working hours, productivity increase, etc.), and were continued to be addressed by ministries and agencies concerned under the framework of this liaison council. (Ongoing)

2. Stricter enforcement of the Subcontractor Payment Act

[Fiscal 2017 budget: Included in ¥1.39 billion]

To ensure fair treatment of subcontractors and protect their incomes, the Fair Trade Commission (FTC) and SME Agency collaborated closely in enforcing the Subcontractor Payment Act. The FTC and SME Agency encouraged rigorous compliance with the Act, by carrying out a written survey of principal contractors, and by collecting information on violations of the Act through an office set up specifically to receive such information and reports. In April 2017, one request for measures was made to the FTC pursuant to Article 6 of the Subcontractor Payment Act. (Ongoing)

3. Strengthening consultation systems and fair subcontracting transactions

[Fiscal 2017 budget: Included in ¥1.39 billion]

Consultation services concerning SME transactions were provided by the 48 Subcontracting Help Centers set up throughout Japan, and individual guidance and seminars were held on price negotiating know-how that managers and sales representatives in subcontracting SMEs require in holding price negotiations with the procurement department in the parent company. To prevent the occurrence of violations of the Subcontractor Payment Act, seminars were held targeting the procurement managers at principal contractors to further raise awareness of the Subcontractor Payment Act etc., while examples of initiatives by principal contractors were presented around the country and symposiums and other events were held to promote broader adherence to the Subcontractor Payment Act. Furthermore, information sessions were held nationwide to disseminate the guidelines for establishing a favorable relationship between parent companies and subcontracting businesses (guidelines for promoting proper subcontracting transactions in 18 industries under the jurisdiction of the Ministry of Economy, Trade and Industry, the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Internal Affairs and Communications and the Ministry of Agriculture, Forestry and Fisheries). (Ongoing)

4. Self-reliance support for SME and micro subcontractors

[Fiscal 2017 budget: Included in ¥1.39 billion]

Under the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises (Act on the Promotion of Subcontracting), business plans designed to solve issues in collaborations between subcontracting SMEs and micro businesses that are highly transaction-dependent on principal contractors were certified and supported in the form of subsidies, loans and special exemptions for guarantees. In regions where production centers of principal contractors have closed or downsized (or are slated to close), support in the form of subsidies was provided to subcontracting SMEs and micro businesses seeking to advance into new fields. (Ongoing)

5. **Support for market expansion through subcontracting business mediation and business fairs**
[Fiscal 2017 budget: Included in ¥1.39 billion]
Using Business Matching Stations (BMS), subcontracting SMEs and micro businesses looking to solicit new clients were provided with information on orders for contract manufacturing issued and received between enterprises for business such as outsourced manufacturing in the SME's preferred industry and where the SME can provide the required equipment or technology. Broad-area information sessions were also held at 8 venues to support new market development. (Ongoing)

6. **Request to parent companies for consideration toward subcontractors**
[Fiscal 2017 budget: Included in ¥1.39 billion]
In November 2017, the Minister of Economy, Trade and Industry and Fair Trade Commission jointly issued a request for proper subcontracting transactions to approximately 210,000 parent companies and 660 industrial organizations. Additionally, the Minister of Economy, Trade and Industry also issued a request (jointly with the relevant minister in the case of industries under the jurisdiction of other ministries and agencies) for compliance with the promotion standards (revised Dec. 14, 2016) as defined in the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises, to 892 industrial organizations. (Ongoing)

Section 2 Measures concerning public demand

1. **Formulation and dissemination of the "FY2017 Policy on State Contracts with Small and Medium Enterprises"**
On July 25, 2017, Cabinet approval was given on the Basic Policy on State Contracts with Small and Medium Enterprises, which sets 55.1% as the target contract ratio of among SMEs and micro businesses and calls for roughly doubling the ratio of state contracts with new SMEs over the three years from fiscal 2015 to 2017, compared fiscal 2014 (estimated at around 1%). Measures for increasing opportunities for SMEs to receive orders were also incorporated in the Basic Policy, including measures for regulating the handling of intellectual property rights, for giving due consideration to the financial status of SMEs and micro businesses, and for reviewing contract amounts accompanying a revision of the minimum wage.
The following initiatives were implemented to fully disseminate the Basic Policy.
(1) The Minister for Economy, Trade and Industry explained the purport of the Basic Policy in writing to the heads of each agency and ministry, prefectural governors, all municipal mayors, and mayors of the Tokyo special wards (1,805 organizations), and also requested that they make efforts to increase opportunities for SMEs and micro businesses to receive orders.
(2) From August to September, 50 information sessions (Councils to Promote Local Access to Public Sector Demand) were held throughout Japan to actively raise awareness of the Basic Policy in regional areas.
(3) A conference (Councils to Promote Procurement from new SMEs) was organized to discuss policies for information sharing and cooperation regarding initiatives for promoting procurement from new SMEs in regional areas.
(4) A "Guide to Contracts in the Public Sector" was produced and distributed to central and local government agencies and other commerce and industry-related organizations. (Ongoing)

2. **Operation of the "Public Demand Information Portal Site" to expand opportunities for SMEs and micro businesses to receive orders from the public sector**
[Fiscal 2017 budget: Included in ¥1.39 billion]
A Public Demand Information Portal Site has been operated that provides SMEs and micro businesses with one-stop access to order information posted on national government and other local public websites in order to improve access by SMEs and micro businesses to information on public sector orders. (Ongoing)

Section 3 Measures for pass-throughs of consumption tax

1. **Programs to enhance monitoring and inspection regimes for consumption tax imputation**
[Fiscal 2017 budget: ¥2.85 billion]
To ensure that consumption tax is passed through appropriately, "cost pass-through inspectors" were assigned throughout Japan. At the same time, to collect information such as on refusals to pass through the consumption tax, a large-scale written survey was carried out in conjunction with the Fair Trade Commission (FTC) in the effort to monitor and regulate acts of refusal to pass through the consumption tax. (Ongoing)

Section 4 Measures for reduced consumption tax rate system

1. **Support for the introduction of cash registers and system renovations among SMEs in the retail trade industry**
Support was provided to help businesses prepare for the introduction and operation of the reduced consumption tax rate system. More specifically,

(1) support for introducing cash registers that are compatible with multiple tax rates was provided to SMEs in the retail trade industry, and (2) support for renovating electronic ordering systems that are not compatible with multiple tax rates was provided to SMEs in the retail trade and wholesale trade industries. (Ongoing)

2. **Consultation desks for inquiries regarding the reduced consumption tax rate system**
[Fiscal 2017 budget: ¥1.94 billion]
Toward the smooth implementation of the reduced consumption tax rate system, detailed support was provided in cooperation with SME organizations, etc. Seminars and forums were held, consultation desks were established, specialists were dispatched to provide itinerary guidance, and such support measures were disseminated via pamphlets and other such media. Support was also provided through the operation of cost pass-through consultation desks. (Ongoing)

Section 5 Cash-flow assistance and business generation support

1. **Safety net loans (funds in response to changes in the business environment)**
[Fiscal investment and loan program]
JFC provided financial support to SMEs and micro businesses that have suffered a downturn in business conditions, such as a temporary decline in sales caused by changes in the social or economic environment or other such external factors. In fiscal 2017, approx. 100,000 loans were made with worth a total value of ¥1.5 trillion (as of the end of December 2017). (Ongoing)

2. **Managerial Improvement Loans for micro businesses [Fiscal investment and loan program]**
In order to provide financial support to micro businesses, JFC provided unsecured and unguaranteed low-interest loans to micro businesses that receive management guidance from societies and chambers of commerce and industry and prefectural federations of societies of commerce and industry. (In fiscal 2017, a total of 35,514 loans were provided with a total value of ¥216.87 billion (as of the end of December 2017)). (Cited earlier) (Ongoing)

3. **Micro business management development support loans**
[Fiscal investment and loan program]
To support sustainable business development by micro businesses, JFC offered low-interest loans to micro businesses that receive management guidance from societies and chambers of commerce and industry certified under a management development support plan. (In fiscal 2017, a total of 353 loans were provided with a total value of ¥3.68 billion (as of the end of December 2017)). (Cited earlier) (Ongoing)

4. **Promotion of subordinated lending [Fiscal investment and loan program]**
To enhance the financial underpinnings of SMEs and micro businesses endeavoring to expand into new businesses or improve their management and facilitate their smooth procurement of funds from private financial institutions, JFC provided cash-flow support to SMEs and micro businesses in the form of "bullet loans" (capital funds) that could be taken to be equity in financial inspections. In fiscal 2017, approx. 870 subordinated loans were provided, worth a total value of approx. ¥49 billion (as of the end of December 2017). (Ongoing)

5. **SME and micro business management enhancement loan/guarantee program**
[Fiscal investment and loan program]
JFC provided the necessary loans for strengthening the management and fund procurement capacity of SMEs aiming to achieve management innovation or cultivate new markets in cooperation with SMEs in other sectors based on guidance and advice from approved management innovation support agencies. (Ongoing)

6. **Encouragement of refinancing guarantees**
Refinancing guarantees are promoted with the aim of encouraging credit guarantee corporations to consolidate multiple outstanding debts and relieve the repayment burdens at hand. In fiscal 2017 (up to the end of December 2017), 130,058 refinancing guarantees were approved, worth a total value of ¥2.4517 trillion.
Additionally, a refinancing guarantee program that allows changes and improvements in loan conditions was created in 2016 to support SMEs and micro businesses facing difficulty in receiving forward-looking loan support even though their managers have the motivation to improve business, through a relaxation of repayment conditions. In fiscal 2017 (up to the end of December 2017), 310 refinancing guarantees were approved, worth a total value of ¥10.6 billion. (Ongoing)

7. **Safety-net Guarantees**
Credit guarantee corporations provided guarantees separate from ordinary guarantees to SMEs and micro businesses experiencing a management instability due to a bankruptcy of their business partner, a natural disaster, or the streamlining of operations by their main financial institution (100% guaranteed for up to ¥80 million for unsecured loans, and up to ¥280 million for other loans).

In fiscal 2017, the guarantee was applied in the wake of the heavy rain disaster in northern Kyushu (Safety-net Guarantee No. 4) and the disaster caused by Typhoon No. 21 (Safety-net Guarantee No. 4).
Safety-net Guarantee No. 5 was continued to be provided to SMEs in designated industries that satisfy the criteria for the guarantee, such as a certain rate of decrease or more in average monthly sales on a year-on-year basis over the latest three months.
In fiscal 2017 (up to the end of December 2017), 10,792 safety-net guarantees were approved, totaling ¥266.5 billion. (Ongoing)

8. **Management support by credit guarantee corporations [Fiscal 2017 budget: ¥1.3 billion]**
The scope of management support by credit guarantee corporations was expanded in fiscal 2017 to include not only users of credit guarantee corporations, (potential) entrepreneurs planning to utilize a credit guarantee corporation, and SMEs and micro businesses that engage in management improvement, but also SMEs and micro businesses planning a business succession or aiming to increase productivity.
Credit guarantee corporations provided management support such as through the dispatch of experts, to such SMEs and micro businesses in cooperation with regional financial institutions, in combination with cash-flow support. In fiscal 2017 (as of the end of December 2017), experts have been dispatched in approximately 16,000 cases. (Ongoing)

9. **Program to assist with formulating management reform plans by approved support agencies [Fiscal 2017 supplementary budget: ¥3 billion]**
For SMEs and micro businesses that have a financial problem such as regarding the repayment burden of loans and require full-fledged management improvement that includes financial support, approved support agencies (certified public tax accountants, CPAs, financial institutions, etc.) provided assistance in formulating management reform plans, as well as follow-up for those plans. Under the Act on Strengthening the Management of SMEs, etc., the program defrayed part (two-thirds) of the costs incurred by those activities. As of the end of December 2017, 4,983 consultations were received, including 1,511 cases that were taken up by the program. This brought the total number of consultations received between the inception of the program (March 2013) to the end of December 2017 to 45,463, including 14,812 cases in which the formulation of reform plans has been completed. From May 2017, support was provided to SMEs and micro businesses that need to promptly formulate a management improvement plan for cash-flow management and profitability management by defraying part (two-thirds) of the costs of receiving support for the prompt formulation of a management improvement plan by approved support agencies. As of the end of December 2017, 5,126 consultations were received, including 4,598 new cases. (Ongoing)

10. **SME Revitalization Support Councils [Fiscal 2017 budget: Included in ¥6.11 billion]**
The SME Revitalization Support Councils established at the chambers of commerce and industry and similar entities in each prefecture provided SMEs and micro businesses whose businesses were profitable but faced financial problems such as excess of debts, with advice on solving their problems through consultation services, and assisted with the drafting of revitalization plans that also included coordination with relevant financial institutions and similar entities. Between April 2017 and the end of December 2017, the councils received 1,315 consultations and formulated 589 revitalization plans, for a total of 39,877 consultations and the formulation of 12,687 revitalization plans from their inception to the end of December 2017. (Ongoing)

11. **SME Rehabilitation Plan through Succession (secondary companies)**
Where an SME rehabilitation plan through succession is authorized under the Industrial Competitiveness Enhancement Act and business succession occurs as set out in that plan, measures were implemented to support financing, along with special provisions for permissible succession. To the end of December 2017, two such cases were approved, for a total of 41 cases since the system was established based on the Act on Special Measures concerning Industrial Revitalization (June 2009). (Ongoing)

12. **SME revitalization funds**
To deliver management support and the funds needed by SMEs engaging in revitalization initiatives, the SMRJ, regional financial institutions, and credit guarantee corporations in unison promoted the establishment and utilization of regional funds that support the revitalization of SMEs within the region and national funds that provide wide-area support. Up to the end of September 2017, 51 funds have been established, amounting to approximately ¥168.1 billion in total. By the end of September 2017, the funds have invested approximately ¥89.4 billion in 445 companies. (Ongoing)

13. **Promotion of the use of "Guidelines for Personal Guarantees Provided by Business Owners" [Fiscal 2017 budget: ¥100 million]**
To promote the further dissemination and utilization of the "Guidelines for Personal Guarantees Provided by Business Owners" published on 5 December 2013, help desks were operated in the regional headquarters of the SMRJ, specialist advisors were dispatched to

businesses that wish to use the guidelines, and the guidelines were disseminated to SMEs and micro businesses via direct mail and government public relations. (Ongoing)

14. **Enhanced management support for financial administration among SMEs and micro businesses**
Based on the financial monitoring policy, financial institutions were encouraged to provide helpful advice and financing to enterprises by ensuring proper assessment of the business performance and growth potential of borrower companies (business assessment) without relying excessively on security and guarantees. (Ongoing)

15. **Support for SMEs in Okinawa**
[Fiscal investment and loan program]
[Fiscal 2017 budget: Included in ¥68.5 billion]
Regarding support for SMEs in Okinawa delivered via the Okinawa Development Finance Corporation (ODFC), the operations and initiatives undertaken by JFC were performed as usual, while ODFC's own system of lending was expanded to meet the specific needs of businesses in Okinawa. (Ongoing)

Section 6 Measures for business stabilization

1. **Mutual Relief System for the Prevention of Bankruptcies of SMEs (Mutual Safety-net Relief System)**
The Mutual Relief System for the Prevention of Bankruptcies of SMEs is a system that provides unsecured, unguaranteed, low-interest loans to prevent a chain reaction of bankruptcies when the bankruptcy of a supplier or customer has made it difficult for an enterprise to recover moneys due on account. (Ongoing)

2. **Special Business Stability Consultation Centers**
[Fiscal 2017 budget: Included in ¥4.94 billion]
To assist in the resolution of the many and diverse administrative problems of SMEs facing management risks, special business stability advice centers have been established in key chambers of commerce and industry and prefectural federations of societies of commerce and industry across the country. To facilitate management consultations related to business stability in a wide range of business sectors at these centers, support was provided to initiatives such as guidance programs run by the Japan Chamber of Commerce and Industry and the Central Federation of Societies of Commerce and Industry. (Ongoing)

3. **Promotion of wider adoption of BCPs by SMEs**
[Fiscal investment and loan program]
Experts were dispatched to assist SMEs and micro businesses in the formulation of BCPs (business continuity plans) for strengthening their disaster response and in implementing initiatives for ensuring proper action in ordinary times and business continuation in times of emergency (review of supply chains and operational frameworks, formulation of fund procurement plans, identification of priority products, etc.). Additionally, low-interest loans were provided by JFC for the establishment of disaster prevention facilities in accordance with BCPs formulated by SMEs and micro businesses themselves. (Ongoing)

4. **Relief for damage caused by dumped imports**
[Fiscal 2017 budget: ¥65 million]
Trade remedy measures include anti-dumping (AD) programs to provide relief to domestic industries impacted by dumped imports to Japan from foreign enterprises, including measures to ensure equitable market competition such as by imposing extra customs duties based on a petition by a Japanese industry and an investigation by the government. The AD investigation into Chinese manufactured polyethylene terephthalate that was begun in September 2016 was completed in December 2017, and the AD program was implemented. Additionally, the AD investigation into South Korean and Chinese manufactured carbon steel butt welding joints that was begun in March 2016 was compiled into an interim report and presented in December 2017, and a provisional AD program was implemented. Furthermore, information sessions were held for enterprises and studies were conducted to ensure that investigations are consistent with WTO conventions. (Ongoing)

Section 7 Enhancing financial capacity

1. **Lowering of corparate tax rates**
[Taxation scheme]
A measure was taken to lower the rate of corporate tax (19%) incurred on annual income amounts up to ¥8 million to 15%. (Ongoing)

2. **SME investment promotion tax system [Taxation scheme]**
Under this system, a 30% special depreciation or a 7% tax credit (the tax credit is not offered to corporate entities with a capital of more than ¥30 million) was offered for the price of acquiring machinery or equipment. (Ongoing)

3. **Special scheme for inclusion of petty sum depreciable assets in expenses [Taxation scheme]**
Under this scheme, the entire cost of acquiring depreciable assets worth less than ¥300,000 in acquisition cost was allowed to be included in

expenses, up to a total of ¥3 million a year (with the exception of enterprises with more than 1,000 employees). (Ongoing)

4. **Carryover and refund carryback of loss [Taxation scheme]**
The carryover of loss is a scheme that allows loss arising in the current business year to be deducted as a loss carried over from the amount of income in the following and subsequent business years (carry-over period: 9 years). The one-year carryback refund allowed losses arising in the current business year to be carried back a year, and a return on corporate tax to be filed. (Ongoing)

5. **Taxation system for the revitalization of the commercial, service and agriculture/forestry/fishery industries [Taxation scheme]**
The tax measure that allows SMEs in the commercial and service industries that acquire facilities based on advice on business improvement from a chamber of commerce and industry or other such institution to receive a 30% special depreciation deduction from the cost of acquisition or a 7% tax credit was continued (the tax credit is offered only to corporate entities with a capital of no more than ¥30 million). (Ongoing)

6. **Special exemption from inclusion in charges against revenue of entertainment and social expenses, etc. [Taxation scheme]**
The selective application of (1) the measure that permits entertainment and social expenses to be included in charges against revenue up to the fixed deduction amount (¥8 million) or (2) the measure that allows 50% of food and drink expenses to be included in charges against revenue was offered. (Ongoing)

7. **Investment by Small and Medium Business Investment and Consultation Co., Ltd.**
In order to help enhance SMEs' capital adequacy and contribute to their sound growth and development, the Small and Medium Business Investment and Consultation Co., Ltd. operated a number of programs to assist in SME development. These include business consultations, assistance with business successions and investment programs involving the underwriting of shares, share warrants and corporate bonds with subscription warrants. (Ongoing)

Section 8 Promotion of human rights awareness

1. **Human rights awareness**
[Fiscal 2017 budget: ¥190 million]
In order to widely propagate respect for human rights and cultivate awareness of human rights among SMEs and micro businesses, seminars and other awareness-raising activities were organized. Traveling consultation services and training programs were also offered to revitalize micro businesses in regions or industries where there are particularly large numbers of micro businesses that require concentrated support. (Ongoing)

Chapter 4 Post-disaster restoration and reconstruction

Section 1 Cash-flow assistance

1. **Cash-flow assistance for disaster-affected SMEs (finance policy)**
[Fiscal 2017 budget: Included in ¥13.9 billion]
There has been ongoing provision of the Great East Japan Earthquake Recovery Special Loan Program and the 2016 Kumamoto Earthquake Special Loan Program (commenced in June 2016) by the Japan Finance Corporation (JFC) (SME Unit and Micro Business and Individual Unit) and the Shoko Chukin Bank to assist SMEs and micro businesses affected by the Great East Japan Earthquake and Kumamoto Earthquake with their cash-flow issues. Between the start of the program's operation and the end of December 2017, the Great East Japan Earthquake Recovery Special Loan provided a total of approx. 301,000 loans with a total value of approx. ¥6.0916 trillion, and the 2016 Kumamoto Special Loan Program provided a total of approx. 17,000 loans with a total value of approx. ¥226 billion. The measure that was created in the wake of the Great East Japan Earthquake for implementation by prefectural level foundations and similar institutions to effectively eliminate the burden of interest payments on loans received by SMEs and micro businesses with business establishments located in restricted areas or similar zones when they were imposed following the nuclear accident in Fukushima, and for SMEs and micro businesses with business establishments and other assets that were completely destroyed or swept away by the earthquake or tsunami, were continued. (Ongoing)

2. **Loan ceilings and lowering of interest rates on Managerial Improvement Loans (Marukei loans) and Managerial Improvement Loans for Environmental Health Business Loans (Eikei loans)**
The loan ceilings for unsecured, unguaranteed and low-interest Marukei and Eikei loans provided by JFC to micro businesses affected directly or indirectly by the Great East Japan Earthquake or the 2016 Kumamoto Earthquake were raised continually and interest rates were lowered. A total of 506 Marukei loans worth ¥1.84827 billion and 5 Eikei loans worth ¥15.1 million were provided to businesses affected by the Great East Japan Earthquake for fiscal 2017 (as of the end of December 2017), and a total of 23 Marukei loans worth ¥100 million were provided to businesses affected by the Kumamoto Earthquake for fiscal 2017 (there was no provision of Eikei loans) (as of the end of December 2017). (Ongoing)

3. **Cash-flow assistance for disaster-affected SMEs (credit guarantee)**
To assist SMEs and micro businesses affected by the Great East Japan Earthquake, the "Great East Japan Earthquake emergency reconstruction guarantee" was continued to be implemented in fiscal 2017 in specific disaster affected areas as a new guarantee system separate from existing ordinary guarantees, disaster-related guarantees and safety net guarantees (100% guaranteed for up to ¥80 million for unsecured loans, and up to ¥280 million for other loans). Between the start of this program's operation on 23 May 2011 and the end of December 2017, a total of approx. 135,301 loans were made with a total value of approx. ¥2.7380 trillion.
In the wake of the heavy rain disaster that occurred in northern Kyushu in July 2017, Safety-net Guarantee No. 4 was applied to Fukuoka Prefecture and parts of Oita Prefecture, and disaster-related guarantees were also applied to parts of Fukuoka Prefecture. As of the end of December 2017, the two programs made guarantee commitments on 59 loans with a total value of approx. ¥900 million. (Ongoing)

4. **"Special Finance for Small and Medium Enterprises in the Specified Area" affected by the nuclear disaster**
In order to assist SMEs and other businesses that have offices in regions affected by the nuclear power plant accident, long-term, interest-free, unsecured loans were offered to provide business funds (working capital and capital expenditure) required to continue or resume business in Fukushima Prefecture. (Ongoing)

Section 2 Countermeasures for the overlapping debt problem

1. **Business revival assistance from Industrial Recovery Consultation Centers and Industry Reconstruction Corporations**
[Fiscal 2017 budget: ¥1.39 billion*]
Continued support was provided for the revival of SMEs damaged by the Great East Japan Earthquake through Industrial Recovery Consultation Centers that provide comprehensive consultation and Industry Reconstruction Corporations that engage in buying receivables. These consultation centers and reconstruction corporations were established in fiscal 2011 to strengthen the framework of SME Revitalization Support Councils in prefectures

affected by the Great East Japan Earthquake. The Industrial Recovery Consultation Centers in each prefecture handled 6,139 consultations from business owners as of 28 February 2018. Organizations such as financial institutions agreed to provide financial support in 1,153 cases, including 337 cases that were carried through to completion. (*) Special account for reconstruction from the Great East Japan Earthquake. Of the six disaster-affected prefectures, budgets for SME Revitalization Support Councils and Industrial Recovery Consultation Centers in Aomori, Ibaraki and Chiba prefectures were transferred to the general account in the fiscal 2017 budget. (Ongoing)

2. **Revival assistance from the Incorporated Organization for Supporting the Turnaround of Businesses Damaged by the Great East Japan Earthquake**
To cope with the overlapping debt problems of earthquake-affected businesses, the Incorporated Organization for Supporting the Turnaround of Businesses Damaged by the Great East Japan Earthquake provided assistance such as helping to relieve the repayment burdens for existing debts. Since it began operating on 5 March 2012, the Incorporated Organization for Supporting the Turnaround of Businesses Damaged by the Great East Japan Earthquake has so far received 2,733 consultations and in 736 of those cases has decided to support business owners to revive their businesses through measures such as debt-factoring (as of the end of February 2018). Furthermore, the revised Act on the Incorporated Organization for Supporting the Turnaround of Businesses Damaged by the Great East Japan Earthquake was enacted on 1 February 2018 to allow the Incorporated Organization for Supporting the Turnaround of Businesses Damaged by the Great East Japan Earthquake to extend the decision-making term for providing assistance, and decision-making term was extended until 31 March 2021. (Ongoing)

3. **Reduction of interest burden during assessment of the potential for business regeneration**
This program supported the early business revival of SMEs, etc. that have suffered damage in the Great East Japan Earthquake or the nuclear power plant accident in Fukushima, by defraying the cost of interest that such businesses incur during the period they receive assistance from an Industrial Recovery Consultation Center to formulate a regeneration plan. (Ongoing)

4. **Implementation of the lease subsidy program to support SMEs in disaster-affected areas**
In order to reduce the burden of overlapping debt borne by disaster-affected SMEs, SMEs burdened with lease obligations due to leased equipment that was lost during the Great East Japan Earthquake are provided with subsidies equivalent to 10% of the cost of the new leases to re-install the equipment. (Ongoing)

Section 3 Support for restoration of plants, etc.

1. **Post-disaster recovery project on joint facilities of small and medium business associations, etc. (The Great East Japan Earthquake)**
[Fiscal 2017 budget: ¥21 billion]
In order to promote the restoration and reconstruction of areas affected by the Great East Japan Earthquake, support was provided through the following subsidies:
(1) Subsidization by the national government (one half) and prefectural governments (one quarter) of the cost of restoration work on facilities and equipment required for implementation of restoration work planned by groups of SMEs and approved by the prefecture as making an important contribution to the regional economy and maintaining employment
(2) Subsidization by the national government of (one half) the cost of disaster recovery projects such as for societies of commerce and industry and other such instruction and consultation facilities for SMEs
Through the above, support was provided for the recovery of facilities held by groups of disaster-affected SMEs and others. (Ongoing)

2. **Post-disaster recovery project on joint facilities of small and medium business associations, etc. (The 2016 Kumamoto Earthquake)**
[Fiscal 2017 supplementary budget: ¥4.69 billion]
To promote the restoration and reconstruction of areas affected by the 2016 Kumamoto Earthquake, support was provided for the recovery of facilities held by groups of disaster-affected SMEs and others through a subsidization by the national government (one half) and prefectural governments (one quarter) of the cost of restoration work on facilities and equipment required for implementation of restoration work planned by groups of SMEs and approved by the prefecture as making an important contribution to the regional economy and maintaining employment. (Ongoing)

3. **Loans for restoration and development of facilities and equipment (The Great East Japan Earthquake)**
Loans were provided by the SMRJ in cooperation with the prefectures to provide funds needed for the repair and development of the facilities and equipment required for the implementation of prefecture approved restoration plans by SMEs that suffered damage caused by the Great East Japan Earthquake. (Ongoing)

4. **Loans for restoration and development of facilities and equipment (The 2016 Kumamoto Earthquake)**
Loans were provided by the SMRJ in cooperation with the prefectures to provide funds needed for the repair and development of the facilities and equipment required for the implementation of prefecture approved restoration plans by SMEs that suffered damage caused by the 2016 Kumamoto Earthquake. (Ongoing)

5. **Projects for maintenance of temporary facilities and subsidies for the effective utilization of temporary facilities**
[Fiscal 2017 budget: Included in ¥650 million]
So that SMEs affected by the Great East Japan Earthquake can resume business as quickly as possible, the SMRJ provided temporary factories and storefronts and essentially cost-free loans were provided to business owners via local governments. As of the end of January 2018, the construction of facilities has been completed at 590 locations in 53 municipalities in six prefectures. Additionally, from April 2014, subsidies have begun to be provided for costs required for the construction, relocation and removal of temporary facilities, and 75 projects have been subsidized under this program as of the end of January 2018. (Ongoing)

6. **Program to secure employment for business recovery**
To address the employment mismatch caused by a serious shortage of workers in disaster-affected areas, support was provided in the area of employment in accord with industrial policies. (Ongoing)

Section 4 Other measures

1. **Establishment of special help desks**
Special help desks were set up at offices of JFC, the Shoko Chukin Bank, credit guarantee corporations, chambers of commerce and industry, federations of societies of commerce and industry, federations of small business associations, branches of the SMRJ, and bureaus of economy, trade and industry nationwide to provide business and financial advice to SMEs and other enterprises affected by the Great East Japan Earthquake. (Ongoing)

2. **Navigation dial for SME phone consultations**
To help SMEs that do not know where to go for advice, a "Navi Dial for SME phone consultations" help line with a single number was provided that connects callers to their nearest Bureau of Economy, Trade, and Industry. (Ongoing)

3. **Consideration for SMEs in disaster-affected regions by the government and other public agencies**
The matter of giving consideration to SMEs and micro businesses in areas affected by the Great East Japan Earthquake and the 2016 Kumamoto Earthquake with regard to orders from the public sector was included in the "Basic Policy on State Contracts with Small and Medium Enterprises" and widely disseminated. (Ongoing)

4. **Subsidy for development of employment for designated job seekers (course for employment and development of disaster-affected workers)**
[Fiscal 2017 budget: ¥30 million]
Subsidies were provided to employers who hire workers who lost their jobs due to the Great East Japan Earthquake as a result of referrals from "Hello Work" employment offices and similar agencies, provided that such workers are expected to be employed continuously for a period of at least one year. Bonus subsidies were additionally provided to employers hiring 10 or more such workers. (Ongoing)

5. **Guidance and advice on measuring radiation levels [Fiscal 2017 budget: ¥30 million]**
A review of the evacuation order in areas designated as evacuation zones after the Great East Japan Earthquake is hereafter expected to be accompanied by the recommencement of business by enterprises that were affected by the disaster and promote the siting of enterprises in the affected areas. Thus, in response to requests from enterprises in Fukushima Prefecture, teams of experts were dispatched to provide guidance and advice on radiation measurements of industrial products in offices in the prefecture, as a countermeasure against harmful rumors about Fukushima's industrial products. (Ongoing)

6. **Industry-academia-government collaboration support project for Fukushima Prefecture, etc.**
[Fiscal 2017 budget: ¥110 million]
Mainly in Fukushima Prefecture, where harmful rumors stemming from the Great East Japan Earthquake and nuclear disaster are still in effect, product development and market cultivation efforts were promoted by providing opportunities for collaboration between disaster-affected enterprises and universities, public research institutions or major companies, and assisting in the development of trial products. (Ongoing)

7. **Program for employment support in response to the nuclear disaster [Fiscal 2017 budget: ¥1.87 billion]**
A program was implemented to provide temporary places of employment to people in Fukushima

Prefecture who have been affected by the nuclear disaster, to help them stabilize their living situation. (Ongoing)

8. **Measures for securing human resources in disaster-affected regions**
[Fiscal 2017 budget: ¥980 million]
Initiatives were taken to attract wide-ranging human resources, including young workers and specialists, to disaster-affected regions, and to provide enterprises with know-how for securing, retaining and developing human resources so they may increase their capacity to gain personnel. Efforts were also made to widely disseminate best practices in acquiring human resources. (Ongoing)

9. **Program for promoting regional reconstruction and practical development under the Fukushima Innovation Coast Scheme**
[Fiscal 2017 budget: ¥6.97 billion]
Support was provided for the cost of practical development of robot technology and other innovative technologies in the priority areas(*) of the Fukushima Innovation Coast Scheme, which contribute to regional promotion through cooperation with local enterprises. (Ongoing)
*Priority areas include the decommissioning of reactors, robots, energy, environment and recycling, agriculture, forestry and fisheries, and medical equipment, among others.

10. **Support program for business recovery, etc. by SMEs and micro businesses**
[Fiscal 2017 budget: ¥11.2 billion]
To provide concentrated support to SMEs in the 12 municipalities that were affected by the nuclear disaster in Fukushima Prefecture and thereby create jobs in the region and promote the early recovery of city functions such as by restoring places for shopping, a subsidy was provided to cover part of the capital investment needed to resume business. In fiscal 2017, funds were increased, and support was expanded for businesses in "difficult-to-return" zones that cannot recommence operations in their original location. (Ongoing)

11. **Support program for new businesses in regions affected by the nuclear disaster**
[Fiscal 2017 budget: ¥210 million]
A subsidy was provided for capital investment needed to start a new business in the 12 municipalities affected by the nuclear disaster in Fukushima Prefecture or transfer a business from outside the 12 municipalities, and initiatives were taken to develop an environment conducive to promoting startup activities and initiatives in the 12 municipalities, to help the municipalities recover their city functions so that affected enterprises can get back on their feet. (Ongoing)

12. **Support for securing travel and transportation means needed to receive lifestyle-related services**
[Fiscal 2017 budget: ¥230 million]
Given the advancing development of an environment for welcoming home returning residents, the support for travel and transportation means so that local stores could make joint deliveries and local residents can receive medical services, etc. was strengthened by increasing the budget by ¥90 million in fiscal 2017 compared to the previous year. (Ongoing)

13. **Support for securing personnel through a personnel match-up program**
[Fiscal 2017 budget: ¥500 million]
To resolve the shortage of human resources in disaster-affected businesses in the 12 municipalities affected by the nuclear disaster in Fukushima Prefecture, human resources coordinators made a detailed assessment of the personnel needs of such businesses and widely spread job vacancy information via the Internet and other such media, to match up job seekers from both inside and outside the 12 municipalities with disaster-affected businesses in need of human resources. (Ongoing)

14. **B2B match-up program for sixth sector industrialization**
[Fiscal 2017 budget: ¥370 million]
A B2B match-up service was provided, to help businesses cultivate new markets and promote the creation of new businesses. In addition to matching businesses with other businesses, an expert also provided guidance regarding the smooth implementation of business after the match-up. (Ongoing)

15. **Support program by specialists of the Fukushima Soso Reconstruction Public-Private Partnership Team [Fiscal 2017 budget: ¥8.2 billion]**
A framework was established for providing support in the form of visits and consultations by specialists of a public-private partnership team. Composed of counselors, consultants, SME management consultants, and other such experts, the team provided fine-tuned consultation support on issues related to business recommencement, business succession, job change, lifestyle reconstruction, etc. In fiscal 2017, the team's scope of activities was expanded to municipalities. (Ongoing)

16. **Support program for introducing regional traditions, attractions, etc. [Fiscal 2017 budget: ¥50 million]**

To introduce the local attractions of the 12 municipalities affected by the nuclear disaster and contribute to the reconstruction and promotion of their traditional crafts and specialty products and invigoration of their local economies, support was provided for organizing trade fairs and implementing PR activities aimed at introducing the local attractions and traditional crafts and specialty products of the 12 municipalities throughout Japan and overseas. (Ongoing)

Chapter 5 Initiatives by industries and area

Section 1 Measures for SMEs in agriculture, forestry and fisheries

1. Promotion of diversification of primary producers into processing and distribution (sixth sector industrialization)

(1) Subsidy for sixth sector industrialization network activities
[Fiscal 2017 budget: ¥1.91 billion]
Support was provided for initiatives in which agriculture, forestry and fishery businesses create a network to develop new products, cultivate markets and operate facilities for processing and marketing agriculture, forestry and fishery products. Support was also provided for sixth sector industrialization initiatives that are implemented by the entire region in line with sixth sector industrialization strategies of the municipality. (Ongoing)

(2) Active utilization of the Agriculture, Forestry and Fisheries Fund Corporation for Innovation, Value-chain and Expansion Japan
Support was provided through measures such as investment for business activities aimed at sixth sector industrialization by agriculture, forestry and fishery businesses in cooperation with distribution and processing businesses through the Agriculture, Forestry and Fisheries Fund Corporation for Innovation, Value-chain and Expansion Japan (A-FIVE). (Ongoing)

(3) Comprehensive program for utilization of the geographical indication protection system
[Fiscal 2017 budget: ¥170 million]
Initiatives were implemented to establish support centers for registration and application of geographical indications (GI), provide a subsidy for carrying out examinations required for application, raise awareness of the GI protection system by holding symposiums and trade fairs on GI, disseminate information on GI products in Japan and abroad, and strengthen measures against infringements of Japan's intellectual properties overseas. (Ongoing)

(4) Comprehensive program to promote renewable energy to revitalize rural areas
[Fiscal 2017 budget: ¥100 million]
Growth in regional agricultural, forestry and fishery businesses was promoted by pursuing community-based initiatives to supply renewable energy and to feed the benefits of such initiatives back into local communities. In fiscal 2017, the program supported only ongoing initiatives that have been implemented by fiscal 2016. (Ongoing)

2. Support for small and medium agricultural, forestry, and fishery businesses

(1) Wood Industry Upgrading Promotion Fund and Forestry and Wood Industry Improvement Fund
[Fiscal 2017 budget: ¥63.9 billion]
In order to streamline lumber production and distribution, loans were provided through the Wood Industry Upgrading Promotion Fund, while loans through the Wood Industry Improvement Fund were provided to implement measures such as management reforms in the forestry and lumber industries. (Ongoing)

(2) Subsidy for Establishment of a Next-generation Forestry Foundation (for the development of lumber processing and distribution facilities)
[Fiscal 2017 budget: ¥7.01 billion]
To create a supply chain for stable and efficient supply in terms of cost, volume and quality, support was provided for the development of lumber processing and distribution facilities needed for the creation of a supply chain. (Ongoing)

(3) Support for reorganization and development of the dairy industry by means of subsidies for building a strong agricultural industry and comprehensive measures for the revitalization of production areas
[Fiscal 2017 budget: Included in the ¥23.0 billion Subsidy for Creating Strong Agriculture and ¥2.57 billion comprehensive measures for revitalization of production regions]
(Objectives of the measure)
- To promote a stronger management culture in the SME dairy industry, such as by restructuring and rationalizing dairy plants and enhancing sanitary control, toward contributing to business stabilization among dairy farmers.

(Overview of the measure)
- To reduce the production and selling costs of SMEs in the dairy industry and promote the advancement of sanitary standards, support measures were taken to strengthen the functions of dairy plant facilities.
- To promote steady initiatives toward increasing the efficiency of collecting and transporting milk and restructuring the dairy industry, support measures were also taken for assessing and examining regional issues. (Ongoing)

(4) Funds for promoting the advancement of quality management in food industries
To improve the safety of food products and gain the confidence of consumers, financial support was provided for the following initiatives under the Act on Temporary Measures concerning Sophistication of Management of Food Manufacturing Process: (1)

Provision of infrastructure and equipment for HACCP introduction; and (2) Provision of infrastructure and equipment for hygiene and product quality control as preliminary steps towards HACCP introduction (advanced platform provision). (Ongoing)

(5) Comprehensive export support project [Fiscal 2017 budget: ¥1.6 billion]
(Objectives of the measure)
- To implement initiatives for the promotion of exports in line with the "Strategies for Strengthening the Export Competitiveness of the Agriculture, Forestry and Fishery Industries" (compiled in May 2016 by the Headquarters on Creation of Regional Vitality in Agriculture, Forestry, and Fisheries) through private-public cooperation toward achieving the target of ¥1 trillion in exports by 2019.

(Overview of the measure)
- Through subsidies to JETRO, comprehensive business support was provided for upstream to downstream operations of export businesses.
- Opportunities for direct negotiations between Japanese businesses and overseas buyers were provided by establishing a Japan Pavilion in overseas trade fairs that are held in countries and regions where export is strongly expected to increase in the future.
- Efforts were made to promote effective business talks with major buyers from overseas who are invited to business conventions in Japan by deepening their understanding of the characteristics of Japanese product categories and their safety through onsite inspections of wholesale markets and production regions.
- Marketing bases (in-store shops) for marketing and promoting Japanese products were established in countries and regions where export from Japan is strongly expected to increase in the future, to sell products of Japanese businesses on a test basis and provide feedback of local responses. (Ongoing)

(6) Measures for export businesses
(Objectives of the measure)
- To implement initiatives for the promotion of exports in line with the "Strategies for Strengthening the Export Competitiveness of the Agriculture, Forestry and Fishery Industries" (compiled in May 2016 by the Headquarters on Creation of Regional Vitality in Agriculture, Forestry, and Fisheries) through private-public cooperation toward achieving the target of ¥1 trillion in exports by 2019.

(Overview of the measure)
- Export organizations for each export category including marine products, rice and rice products, flowers, animal products, tea, forestry products (wood), fruits and processed foods (snack foods) held examination committees in Japan, conducted overseas market surveys, and implemented initiatives for resolving issues regarding the export environment, with the objective of establishing the Japan brand.
- Organizations that coordinate major export production regions and related business in Japan that handle processed foods (excluding snack foods), and organizations that coordinate multiple product categories in regional blocks implemented discussion meetings in Japan, overseas market surveys and initiatives for cultivating markets overseas, with the objective of achieving stable supply throughout the year or on a long-term basis.
- To respond to quarantine requirements that are sought by relevant countries and regions, the acquisition and renewal of international certifications, and realize transportation costs in accordance with the export conditions of each item, initiatives were implemented for the development and demonstration of an optimal export model. (Ongoing)

(Changes from fiscal 2016)
- In response to the establishment of a new export organization for processed foods (snack foods), support will be provided to a total of 8 organizations for their initiatives to develop the Japan brand. (Ongoing)

3. Support for R&D and other cross-field activities

(1) Promotion of studies of scientific technologies for the agriculture, forestry, fishery and food industries [Fiscal 2017 budget: ¥3.07 billion]
To develop the agriculture, forestry, fishery and food industries into growth industries, R&D in those sectors, from the basic to applied stages, were seamlessly promoted through industry-academia collaboration. (Ongoing)

(2) Various forms of lending by JFC
Loans were provided for (1) the improvement of the management of designated agricultural processing businesses, (2) the promotion of new applications of designated agricultural, forestry and livestock products or the adoption of new raw material species for processing, (3) the establishment of stable transaction relationships between food manufacturers and agriculture, forestry and fishery businesses and the development of agricultural, forestry and fishery facilities, (4) the improvement of dairy facilities, (5) the strengthening of the corporate structure of seafood manufacturers, and (6) the restructuring of businesses related to agricultural production. (Ongoing)

Section 2 Measures for SMEs in the transport industry

1. Support for the warehousing industry

To meet the need for increasingly sophisticated and diversified physical distribution services and the shortage of truck drivers as a response to changes

in the socioeconomic environment, the development of warehouses that serve both transport and storage functions was promoted based on the revised Law for Integration and Improvement of Physical Distribution, in the effort to save labor and increase efficiency of physical distribution services. Additionally, to promote low-carbon warehouses, support was provided for the introduction of energy-saving facilities. (Ongoing)

2. Measures for coastal shipping and domestic passenger ships (joint vessel construction system) [Fiscal investment and loan program]

Under the joint vessel construction system of the Japan Railway Construction, Transport and Technology Agency (JRTT), support was provided for the construction of ships having high political significance, such as ships that contribute to the greenification of coastal shipping or to maintaining and revitalizing remote island routes. (Ongoing)

3. Measures for small and medium shipbuilders and related manufacturers

[Fiscal 2017 budget: (1) Included in ¥40 million; (2) ¥16 billion (fiscal 2013 budget); (3) ¥680 million; (4) ¥90 million]

(1) In addition to taking steps to develop a safety net for business stabilization, (1) courses aimed at modernizing management techniques were held, and a health and safety manager training course was also held to help prevent industrial accidents.

(2) Most of the shipyards and shipbuilders on the Pacific coast of Tohoku suffered devastating damage in the Great East Japan Earthquake. The Ministry of Land, Infrastructure and Transport, in cooperation with the SME Agency and other relevant ministries and agencies, have supported the utilization of various support programs to promote the prompt recovery and reconstruction of local shipbuilding industries that support the fishery industry that is a core industry in the region. For shipbuilding businesses that face difficulties in resuming operations at the same level as before the earthquake due to ground subsidence, the Subsidy for Projects that Support the Reconstruction of Shipbuilding Businesses, etc. was established in fiscal 2013 to support the development of shipbuilding facilities toward the full-scale reconstruction of the shipbuilding industry through business cooperation and integration. By the end of fiscal 2014, a total of 19 businesses in 8 projects were selected to receive a subsidy (¥11.42 billion in total). Seven of those subsidized businesses were completed by the end of fiscal 2017. (2) Subsidy for reconstruction assistance projects in the shipbuilding industry (Ongoing)

(3) Subsidies were provided for the cost of 7 research and development projects that involve the participation of SMEs and pursue the development of marine resource development technologies that contribute to the strategic growth of Japan's maritime industries and the research and development of technologies for productivity improvement in the construction and operation of ships in Japan's maritime industry. (3) Subsidy for R&D for technologies related to the maritime industry (Ongoing)

(4) Sector-specific guidelines were formulated for the shipbuilding and marine equipment industries based on the Act on Strengthening the Management of SMEs, etc. that was enforced in July 2016, and 51 management improvement plans formulated by SMEs and micro businesses in line with the guidelines were approved (as of the end of December 2017), so that they can receive tax benefits and other support measures. [Taxation] (Ongoing)

(5) To strengthen the network between local SME shipbuilding enterprises and educational institutions, the "Guidance for implementing internships through cooperation between shipbuilding businesses and local communities" was compiled, announced and disseminated in fiscal 2017. Additionally, to secure outstanding workers in the shipbuilding industry, shipbuilding education was strengthened by creating new teaching materials on shipbuilding for high school students and implementing training programs for developing shipbuilding instructors. Furthermore, the program for accepting foreign shipbuilding workers was revised last November to allow those who have commenced working in Japan's shipbuilding industry before the end of fiscal 2020 to extend their employment to the end of fiscal 2022 at the longest. (4) Acquisition and development of human resources in the shipbuilding industry (Ongoing)

Section 3 Measures for small and medium building contractors and realtors

1. Support program for productivity improvement in the construction industry

[Fiscal 2017 budget: ¥60 million]

Under this program, efforts were made to address the various issues in the construction industry, such as responses to the growing pace of technical innovations, faced by regional SME and second-tier construction companies, which play an extremely important role in protecting the lives and properties of the people as regional guardians. Experts in the construction industry, including human resource development specialists, SME consultants, engineers, and occupational safety consultants, supported SME and second-tier construction enterprises that are strongly aware of the need to address the various issues in the construction industry by providing advice and other consultation support. Among the initiatives for addressing these issues, "priority support (step-up support)" was provided to those that would serve as

model examples.
Furthermore, the best practices in "priority support (step-up support)" were effectively shared across the industry through seminars held in various regions. (Ongoing)

2. Financial support in the construction industry

(1) Implementation of the Local Construction Management Enhancement Loan Program
To facilitate funds procurement by construction companies acting as the main contractor, the Local Construction Management Enhancement Loan Program was implemented, which allows small and medium-sized construction enterprises and second-tier construction companies to receive a loan from loan businesses in proportion to the construction work using the contract value credit from construction works as collateral. The program aims to secure loan funds and reduce procurement interest rates by attaching a loan guarantee to sublease funds that loan businesses borrow from financial institutions when providing a loan. (Ongoing)

(2) Implementation of the Subcontracting Receivables Protection Support Program
To further promote the protection of receivables by building subcontractors, the Subcontracting Receivables Protection Support Program was implemented whereby a factoring company guarantees the contract price receivable by an SME or second-tier subcontractor from the main building contractor. The program compensated for a certain amount of losses by factoring companies and provided subsidies to cover the guarantee fee borne by the subcontractor. (Ongoing)

3. Support for overseas business expansion in the construction industry [Fiscal 2017 budget: ¥70 million]
The Japan Association of Small and Medium-sized enterprises for Overseas Construction (JASMOC) was established with the aim of promoting overseas expansions by second-tier and SME construction companies that possess unique technologies. It mainly provided relevant support by holding seminars in Japan, dispatching missions to the three countries of Thailand, Myanmar and Indonesia, facilitating participation in a trade fair in Vietnam, and organizing joint job fairs. (Ongoing)

4. Financial measures for small and medium realtors
Loan guarantee programs designed to provide guarantees for business loans for regional revitalization and for loans to fund joint initiatives by small and medium realtors were continued so as to supplement credit and facilitate financing of small and medium realtors. (Ongoing)

5. Regional housing greenification program [Fiscal 2017 budget: ¥11.4 billion]
To strengthen the regional production framework for wooden housing and reduce environmental burden, support was provided for the development of energy efficient and durable wooden housing and buildings through groups comprising businesspersons in related fields involved at all stages from provision of materials through to design and implementation. (Ongoing)

6. Community-based program for developing a framework for wooden housing construction techniques [Fiscal 2017 budget: ¥470 million]
To maintain and develop a framework for wooden housing construction techniques in the regions and create a stock of excellent housing, support was provided for training activities implemented by groups of private businesses to develop skilled carpenters. (New)

Section 4 Measures for the environmental sanitation business

1. Measures for the environmental sanitation business [Fiscal 2017 budget: ¥1.04 billion]
Subsidies were provided to environmental sanitation associations and federations, the national environmental sanitation guidance center, and prefectural environmental sanitation guidance centers, to promote the creation of safe and comfortable lifestyle environments from the perspective of sanitation. Support was provided specifically for rehabilitating the management of environmental sanitation businesses such as the hairdressing, dry cleaning and restaurant businesses, maintaining and improving sanitation standards, and protecting user and consumer interests. In fiscal 2017, priority was placed on projects for multilingualizing the website of environmental sanitation associations and strengthening the framework for receiving foreign visitors to Japan (projects for strengthening inbound measures by environmental sanitation businesses), in response to the rapid increase in foreign visitors to Japan, which has also become a pressing issue to environmental sanitation businesses. Seminars on improving profitability to raise the level of wage payments were also held under the fiscal 2017 supplementary budget. (Ongoing)

2. Loans for ES businesses [Fiscal 2017 budget: ¥3.06 billion]
JFC provided low-interest loans (environmental sanitation loans) with the aim of improving and otherwise promoting public health, by providing financial assistance to environmental sanitation businesses. In fiscal 2017, loan conditions related

to loans for business founders were expanded, and under the fiscal 2017 supplementary budget, financial support was provided for acquiring unsecured and unguaranteed low-interest loans from JFC (ES loans), to support the stabilization of the management foundation during the startup period by introducing high-productivity facilities. (Ongoing)

Chapter 6 Other SME policies

Section 1 Environmental and energy measures

1. **Consignment expenses for implementing the J-Credit scheme in Japan**
[Fiscal 2017 budget: ¥380 million]
The J-Credit Scheme is a system for certifying the amounts of greenhouse gas emission reductions achieved through capital investment by SMEs as "credits" and allowing large enterprises to use those credits to achieve the goals of the plan for realizing a low-carbon society or to offset their CO2 emissions. Under this program, a secretariat for administering the scheme was operated, and SMEs implementing greenhouse gas emissions reduction activities by using the J-Credit Scheme were supported in registering projects. The program also promoted carbon offsets and the cultivation of demand for credits created under the J-Credit Scheme. Furthermore, by boosting low-energy investments by SMEs …and promoting the circulation of funds in Japan through the use of these credits, the program achieved a good balance between the environment and economy. (Ongoing)

2. **Environment and Energy Measure Fund (for anti-pollution measures)**
[Fiscal investment and loan program]
To promote anti-pollution measures by SMEs, JFC provided loans to businesses that install pollution prevention equipment. In fiscal 2017, PCB waste disposal businesses were included in the scope of the loan, and the period of the scheme was extended to 31 March 2018. (Ongoing)

3. **Anti-pollution tax system [Taxation scheme]**
The anti-pollution tax system supports the anti-pollution initiatives of businesses, including SMEs, by offering measures such as a special exemption from the tax base for anti-pollution equipment (wastewater or liquid waste treatment facilities) and a special depreciation measure for the acquisition of anti-pollution equipment. The system was continued to be implemented in fiscal 2017. (Ongoing)

4. **Subsidy for supporting the promotion of energy conservation investments (Energy Use Rationalization Business Support Subsidy)**
[Fiscal 2017 budget: Included in ¥67.26 billion]
To promote energy conservation investments and improve energy consumption efficiency in plants and offices, support was provided for the replacement of existing facilities with energy-efficient facilities. In fiscal 2017, support was also be provided for initiatives that contribute to improving energy consumption rate and for the renewal of individual energy-efficient facilities, and particular focus was placed on supporting initiatives for reducing energy use by groups of multiple businesses. (Ongoing)

5. **Interest subsidy for investment in energy-saving facilities**
[Fiscal 2017 budget: ¥1.85 billion]
An interest subsidy on loans was provided to businesses that receive financing from private financial institutions to improve energy consumption efficiency by introducing energy-saving facilities to a new office or installing/adding energy-saving facilities to an existing office, to reduce the cost of funds procurement. (Ongoing)

6. **Subsidy for SME energy conservation diagnosis programs [Fiscal 2017 budget: ¥1 billion]**
A diagnosis program was implemented to diagnose the energy and power saving potential of SMEs, and case examples and energy-saving technologies obtained from the program were disseminated via various media. Additionally, regional consultation platforms were established in 44 prefectures to provide detailed consultation on energy conservation and thereby promote energy-saving initiatives. (Ongoing)

7. **Program for promoting a productivity revolution among SMEs through the introduction and operational improvement of energy-saving facilities**
The program provided support for energy-saving initiatives that contribute to improving productivity by introducing facilities that are equipped with functions for measuring and controlling energy use and deliver high energy-saving performance. It also analyzed not only the effects of replacing facilities but also the effects of pursuing energy-saving potential by utilizing the energy-saving diagnosis of experts to improve facility operations.

8. **Taxation scheme to promote environment-related investment [Taxation scheme]**
The taxation scheme that offers individuals and corporate entities that file a blue tax return a 30% special depreciation or a 7% tax credit (SMEs only) during the first year for the cost of acquiring facilities that contribute to promoting energy conservation and recycling, was implemented to promote thorough energy savings and the introduction of maximum energy savings toward realizing an optimal energy mix. (Ongoing)

9. **Program to create a fund to promote regional low-carbon investment**
[Fiscal 2017 budget: ¥4.8 billion]
In order to call in private funding to low-carbon projects such as renewable energy projects that are likely to be profitable but lack sufficient private funding due to risks stemming from long lead times or long investment recovery periods, funding was provided from the low-carbon investment promotion fund. (Ongoing)

10. **Eco-Lease promotion program [Fiscal 2017 budget: ¥1.9 billion]**
The widespread adoption of low-carbon devices was supported by subsidizing part of the total lease payment and promoting the utilization of a no-deposit "lease" scheme among SMEs that have difficulty coping with the very high initial investment costs (deposits) of installing low-carbon devices. (Ongoing)

11. **Eco-Action 21**
Eco-Action 21 Guidelines 2017 was released to raise awareness of Eco-Action 21 as an effective environmental management system for second-tier businesses and SMEs and to contribute to enhancing corporate value, and the industry-specific guidelines for the construction industry and others were reviewed for revision. Symposiums were also held in six locations throughout Japan to promote recognition of Eco-Action 21. Furthermore, the support program for the introduction of an environmental management system dedicated to CO2 reduction was continued to be implemented, and efforts were made to promote the introduction of Eco-Action 21 to the value chain of large enterprises. (Ongoing)

Section 2 Measures on intellectual property

1. **Surveys of technical trends of patent application**
[Fiscal 2017 budget: Included in ¥850 million]
Trends in patent applications were surveyed, to assist in the formulation of R&D strategies and IP strategies in Japan's industries. In fiscal 2017, 12 themes were surveyed, related to technical fields that are garnering social attention, such as autonomous driving systems, and technical fields where large demand is expected in the future, such as rehabilitation devices. The results of the surveys were made publicly available via such sources as the Japan Patent Office's website. (Ongoing)

2. **Subsidy for international patent applications**
[Fiscal 2017 budget: ¥630 million]
In order to encourage SMEs to file strategic applications for international patents, subsidies were provided to partially defray the costs incurred (such as application fees to overseas patent offices, expenditure on hiring Japanese agents and local agents overseas, and translation costs) by SMEs aspiring to expand their business overseas. In addition to prefectural SME support centers, support was also provided by JETRO. (Ongoing)

3. **Promotion of the wider use of IP systems**
[Fiscal 2017 budget:
(1) Included in INPIT subsidy, (2) ¥40 million]
Information sessions were held for individuals, tailored according to their different levels of knowledge and expertise on the intellectual property system. These included [1] sessions outlining the IP system and explaining basic knowledge for beginners, and [2] sector-specific sessions with more specialized content for people with some experience, looking at topics such as the examination criteria for patents, designs, and trademarks, the application of the trial system and procedures for international applications. In fiscal 2017, 59 information sessions for beginners were held in 47 prefectures, and 59 information sessions for working-level personnel were held in major cities throughout Japan. (Ongoing)

4. **Program supporting measures by SMEs to counter overseas infringement**
[Fiscal 2017 budget: ¥100 million]
To promote the timely and appropriate exercise of industrial property rights overseas by SMEs, the costs required for an investigation of imitation products through to procedures for issuing warning statements and government seizure against the manufacturer of imitation products were subsidized through JETRO. This measure was applied to 16 cases. The cost of consulting with a lawyer and the cost of a lawsuit were also subsidized in cases where an SME is sued by a local enterprise overseas for an infringement of intellectual property rights. This measure was applied to 1 case. Additionally, a measure was implemented to subsidize the cost of filing an opposition or filing a request for a trial for invalidation in cases of an usurped application of the brand trademark of an SME or a regional organization by a local overseas enterprise, or the cost required for filing a request for a trial for rescission such as of an usurped trademark. This measure was applied to 27 cases. (Ongoing)

5. **Patent strategy portal site**
[Fiscal 2017 budget: Included in ¥10 million]
The patent strategy portal site on the Patent Office's website provided online access to "data for self-analysis", which includes individual data on the number of patent applications, the number of examination requests, and the patent allowance rate over the preceding 10 years, for applicants who have applied for a password. (Ongoing)

6. Reductions in patent fees for SMEs

SMEs actively pursuing R&D continued to be subsidized through the reduction by half of examination request fees and patent charges (for 10 years from the first year). Two measures were implemented for small and medium venture enterprises and micro businesses. One measure reduces examination request fees, patent charges (for 10 years from the first year), and administrative charges for overseas patents (administrative charges for investigations, forwarding and preliminary examinations) by one third, and the other measure subsidizes amounts equivalent to two-thirds of the amount paid in international patent administration fees and handling fees. (Ongoing)

7. Accelerated examination and accelerated appeal examination system

In cases where the applicant or appellant is an SME or micro business, a system for accelerated examination and accelerated appeal examination was adopted whereby examinations and appeal examinations could be fast tracked by filing an "explanation of situation for accelerated examination" or "explanation of situation for accelerated appeal examination." The system was also applied to the examination of designs and trademarks that satisfy the requirements for accelerated examination or accelerated appeal examination. In fiscal 2017, as many as 19,230 businesses applied for accelerated examination, and 241 businesses applied for accelerated appeal examination (as of the end of January 2018). (Ongoing)

8. Provision of a one-stop IP service for SMEs (General IP Help Desks)

"General IP Help Desks" have been established in each prefecture and staffed by support staff in order to provide a one-stop service for on-the-spot resolution of IP concerns and problems encountered by SMEs and second-tier enterprises in the course of business administration. The use of IP by SMEs was further promoted by such means as using IP experts to work with SMEs to jointly resolve highly specialist issues, collaborating with SME support agencies and similar organizations, and searching for SMEs that are not yet capable of utilizing IP effectively. In fiscal 2017, the support framework was strengthened such as by strengthening cooperation with local governments, chambers and societies of commerce and industry, Yorozu support centers and other regional support organizations, to promote the effectiveness of the service to regional SMEs based on the Action Plan for Revitalization of Intellectual Properties in the Regions (Sept. 26, 2016), which was formulated by the Patent Office upon discussions by the Subcommittee on Intellectual Property of the Industrial Structure Council. (Ongoing)

9. Development of a one-stop support framework for trade secrets ("Trade secret/IP strategy consultation center—Trade secret hot line—")

The "Trade secret/IP strategy consultation center—Trade secret hot line—" that was established in the National Center for Industrial Property Information and Training (INPIT) on February 2, 2015 cooperated with the IP comprehensive support center in responding to consultations mainly from SMEs through IP experts. The consultations dealt with specific IP strategies, such as the open/close strategy that involves the rights of patents and confidentiality of trade secrets, as well as methods of managing confidential trade secrets and leaks and outflows of trade secrets. Particularly with respect to cases of leakage and outflows of trade secrets, information security measures and cyberattacks, the consultation center maintained its framework of responding to consultations in cooperation with the National Police Agency and Information Technology Promotion Agency, Japan (IPA), in accordance with the content of the consultation. Seminars on trade secrets and intellectual properties were also organized, and activities were implemented for dissemination and awareness-raising regarding trade secrets through the development of e-learning contents. (Ongoing)

10. Emerging Country IP Information Databank

This is an informational website aimed at legal and IP managers in Japanese enterprises doing business in developing countries and similar regions. Its purpose is to provide a wide range of IP information for various developing countries, including information on application procedures, examination and litigation procedures, licensing procedures and statistical and institutional trends. In fiscal 2017, continued efforts were made to further expand the content (No. of content items as of the end of January 2018: 2,015). (Ongoing)

11. Dispatch of Global IP Producers

The National Center for Industrial Property Information and Training (INPIT) has dispatched experts in IP management ("Global IP Producers") to assist SMEs and other enterprises with promising technologies that are likely to drive overseas expansion. These Global IP Producers support overseas business expansion by SMEs through the use of intellectual property, by assisting in the formulation of IP strategies tailored to the nature of the overseas operations and factors such as the situations and systems in the target countries. In fiscal 2017, six Global IP Producers provided support to 224 businesses (as of the end of December 2017). (Ongoing)

12. On-site and TV interviews
[Fiscal 2017 budget: ¥30 million]
To provide support regarding patents and designs to small and medium venture enterprises throughout Japan, onsite interview examinations were held by inspectors and examiners sent to interview venues throughout Japan, and to provide support regarding patents, designs and trademarks, TV interview examinations were held via the Internet using the applicants' own PCs. An onsite interview examination office and TV interview examination office were established in the Kinki Headquarters of the National Center for Industrial Property Information and Training (INPIT) that opened in Osaka Prefecture in July 2017, and the major dates for onsite interviews were scheduled. Additionally, a region-based patent promotion program was implemented, in which an onsite interview examination and seminar on patent rights were held at the same time, intended for corporate cluster regions, such as research parks and universities, where local SMEs, venture enterprises, and research facilities are concentrated. (Ongoing)

13. Promotion of intellectual property financing [Fiscal 2017 budget: ¥130 million]
A comprehensive initiative that promotes financing by financial institutions based on intellectual properties was implemented, such as by providing IP business assessment documents that contain easy-to-understand information about businesses that utilize SME patents and other intellectual properties to financial institutions that find it difficult to assess the patents and intellectual properties of SMEs. Support was provided for the creation of 200 IP business assessment documents. Additionally, the accompaniment style of support was provided to 12 financial institutions requiring systematic IP initiatives, and seminars and symposiums were held for employees of financial institutions. (Ongoing)

14. Program for promotion of businesses that utilize Japanese intellectual properties [Fiscal 2017 budget: ¥270 million]
The following initiatives were implemented via JETRO, to support the promotion of overseas business expansion through the use of intellectual properties of medium enterprises, SMEs and regional organizations that have acquired a regional collective trademark.
(1) Candidate partners of license businesses with Japanese enterprises possessing outstanding intellectual properties were listed up through a survey, and the information was utilized in business meetings mentioned in (2) and (3) below.
(2) Support was provided for the creation of business models and the formulation of brand strategies that lead to license businesses overseas, and events and business opportunities were provided via seminars and training programs in Japan held by specialists and multiple occasions for individual interviews overseas.
(3) Support was provided, such as by arranging opportunities for business meetings with business partner candidates, through participation in trade fairs and business meetings in Japan and overseas.
(4) Advice was provided through intellectual property specialists, with a view to preventing the outflow of technologies.
(5) The attractiveness of Japanese medium enterprises and SMEs having prospective intellectual properties and regional organizations that have acquired a collective trademark were widely communicated overseas in multiple languages, with careful consideration to prevent the outflow of technologies. (Ongoing)

15. Program for strengthening capacities to support the intellectual properties of regional SMEs [Fiscal 2017 budget: ¥200 million]
To promote the protection and utilization of the intellectual properties of SMEs through detailed support in consideration of the various issues and regional characteristics of SMEs, Bureaus of Economy, Trade and Industry sought pioneering and advanced initiatives for supporting intellectual properties from highly motivated regional support organizations, and support was provided to 24 initiatives. (Ongoing)

16. Subsidy for trade insurance against IP lawsuits overseas [Fiscal 2017 budget: ¥60 million]
To allow SMEs to take measures against IP lawsuits overseas, support was provided to an overseas IP lawsuit insurance system operated by a membership of nationwide SMEs, to provide funds to cover for the cost of IP lawsuits overseas. Subsidies were granted to a nationwide organization of SMEs, to subsidize 1/2 the premium of overseas IP lawsuit insurances. By reducing the burden of paying the insurance premium, the program encouraged subscription by SMEs. (Ongoing)

17. Dispatch of business producers for regional revitalization [Fiscal 2017 budget: Included in ¥120 million]
With the objective of expanding business functions in the regions, three "business producers" were dispatched to three institutions to support the development of an environment that is conducive to creating businesses, by helping to identify hidden needs that could lead to business, procure business capital by matching the needs with seeds through the creation and utilization of a regional network that includes financial institutions, and cultivate a market. (Ongoing)

18. Provision of patent information
In March 2015, a service for patent information

provision called Japan Platform for Patent Information (J-PlatPat) was launched, which allows searches through official bulletins for patents in Japan and overseas, utility model patents, designs, and trademarks, and inquiries regarding the progress of patent examinations, registrations and appeals. In fiscal 2017, a system was developed for adding a patent and utility model search function to allow searches of English documents in foreign patent journals (U.S., EU, international applications) and searches by combinations of categories and key words. Furthermore, to enable foreign patent documents and particularly the increasing numbers of Chinese and South Korean patent documents to be searched in Japanese, the Chinese and Korean Document Translation and Search System was launched in January 2015, and the Foreign Patent Information Service (FOPISER) was launched in August 2015 for referencing patent information in the ASEAN and foreign countries that are prominent destinations of overseas expansion by Japanese enterprises. The services are available free of charge via the Internet. (Ongoing)

Section 3 Promotion of standardization

1. Promotion of the strategic utilization of standardization by medium enterprises and SMEs

From among the proposals made by medium enterprises and SMEs by utilizing the Standardization System for New Market Creation that is based on the Future Investment Strategy 2017 and IP Promotion Plan 2017, standards have been formulated for 11 proposals as of the end of 2017. Furthermore, local government bodies, industrial promotion organizations, regional finance institutions, and university and public research institutions (partner institutions) cooperated with the Japanese Standards Association (JSA) in increasing the number of partner institutions of the Standardization Support Partnership System, which provides information and advice on the strategic utilization of standardization in the regions, to 147 institutions as of the end of fiscal 2017. Also under the system, seminars were held on the strategic utilization of standardization for medium enterprises and SMEs (132 seminars were held as of the end of fiscal 2017). Furthermore, under JETRO's support program for acquisition of certification for overseas exports, information pamphlets on EU, Indonesia, Vietnam and Thailand were published, 6 seminars were held (5 in Japan, 1 overseas (Thailand)) as of the end of fiscal 2017, and 47 individual consultations were held (34 companies). (Ongoing)

Section 4 Promotion of surveys and public information activities

1. Publicizing of policy

To publicize SME policy, guidebooks and leaflets summarizing the main points were produced and distributed to local governments, SME support agencies and financial institutions, etc. Further publicity was generated by issuing information via portal site for SME support (Mirasapo) and organizing "One-day SME Agency" events. (Ongoing)

(1) Publication of booklets

Guidebooks and leaflets for utilizing SME policies have been produced, including the "Guide to the Use of SME Policy," which contains an introduction of more than 200 policies. These have been distributed to a wide range of interested parties, including SMEs, local government bodies, SME support agencies (societies and chambers of commerce and industry, etc.), financial institutions, and certified public tax accountants, lawyers, certified public accountants, and SME management consultants who provide support to SMEs.

(2) Organization of "One-day SME Agency" events

Co-hosted by the SME Agency and host prefectures, these events were held both to explain the latest measures to local SMEs and deepen their understanding of the measures. The events also provided a forum for exchanges of ideas and interaction, which contributed to future revisions and improvements in SME policy. These events have been held every year since 1964 and were held in Hokkaido and Tokushima Prefecture in fiscal 2017.

(3) Publicity using the Internet

1) Website based publicity

The SME Agency website hosted up-to-date information on SME measures, information on public offerings, and publicity materials such as flyers and booklets. In fiscal 2017, the website received around 35 million page views for the year.

2) E-mail newsletters

In association with SME support agencies, an e-mail newsletter containing information on support policies such as of subsidies, regional information, and information on surveys and research reports was sent out to subscribers every Wednesday. The e-mail newsletter has roughly 91,000 registered readers (as of the end of December 2017).

(4) "Mirasapo" (portal website for supporting the future of SMEs and micro businesses)

Through the Mirasapo site, the latest support information, information on how to apply for subsidies, case examples of the utilization of support schemes, etc. were delivered to nationwide SMEs in a timely and easy-to-understand manner. (Membership: 141,000 enterprises; Mirasapo e-mail newsletter

subscribers: 105,000 enterprises; as of the end of December 2017).

2. **Production of the White Paper on Small and Medium Enterprises in Japan and the White Paper on Small Enterprises**
In order to ascertain the current situation of SMEs and the challenges that they face, an annual report (2017 White Paper on Small and Medium Enterprises in Japan) was produced in accordance with the provisions of Article 11 of the Small and Medium-sized Enterprise Basic Act. Also to ascertain the current situation of small enterprises and the challenges they face, an annual report (2017 White Paper on Small Enterprises) was produced in accordance with the provisions of Article 12 of the Small Enterprises Promotion Act. (Ongoing)

3. **Basic Survey of Small and Medium Enterprises**
The Basic Survey of Small and Medium Enterprises was conducted in accordance with the provisions of Article 10 of the Small and Medium-sized Enterprise Basic Act, and provided statistics concerning management and financial information such as SME sales figures and numbers of workers employed by SMEs. (Ongoing)

4. **Publication of the Survey on SME Business Conditions**
The Survey on SME Business Conditions is published quarterly by the SMRJ to ascertain business trends among SMEs. (Ongoing)

SME policies planned for fiscal 2018

Contents

SME policies planned for fiscal 2018

Note: The quantities, amounts of money and other figures in this document are approximate and may be changed in the future.

Chapter 1 Initiatives for strengthening management and increasing productivity

Section 1 Enhancement of productivity improvement and technological capacity

1. **Strategic Core Technology Advancement Program and support program for collaborative efforts [Fiscal 2018 budget: ¥13 billion]**
SMEs and micro businesses having an approved plan under the SME Technological Advancement Act or the Act on Regional Future Investment Promotion implement will be supported in their R&D initiatives that are taken in cooperation with universities, public research organizations, and other such R&D institutions. Support will also be provided to SMEs and micro businesses in their effort to develop a new service model based on industry-academia-government collaboration, in line with a cross-field collaboration plan for cultivation of a new business field that has been approved under the Act on Strengthening the Management of SMEs, etc. (Ongoing)

2. **The National Institute of Advanced Industrial Science and Technology (AIST)'s bridge-building initiatives for medium enterprises and SMEs**
AIST will support the R&D initiatives of medium enterprises and SMEs by establishing a nationwide framework of cooperation such as through the appointment of an AIST innovation coordinator in public research organizations that possess knowledge of the needs of regional medium enterprises and SMEs, and by strengthening capacities to "bridge" innovative technology seeds of regional enterprises with commercialization initiatives. (Ongoing)

3. **Comprehensive support for enhancement of core manufacturing technologies among SMEs**
Comprehensive support will be provided through the Strategic Core Technology Advancement Program and special loans and guarantees to SMEs and micro businesses with approved specific R&D plans that have been formulated in accordance with the advancement guidelines under the SME Technological Advancement Law. (Ongoing)

4. **Establishment of property tax reduction and exemption measures for productivity revolution**
Where the advanced facility introduction plan of SMEs, etc. complies with the introduction promotion basic plan of municipalities based on the Act on Special Measures for Productivity Improvement and has been certified as a plan that will increase labor productivity by more than 3% per year on average, a measure will be established that calculates the tax base of property tax imposed on designated machines and devices that are included in the plan and that are expected to be used directly for production and sales activities as the amount obtained by multiplying a rate of more than 0% to less than 50% prescribed by municipal ordinance to the costs incurred by those machines and devices in the first three years. In conjunction with this measure, the "manufacturing, commerce and service subsidies" and other budget measures will be expanded and given priority support. (New)

5. **R&D promotion tax system (for strengthening the technological bases of SMEs)**
[Taxation scheme]
The tax credit that is offered at a rate that corresponds to the rate of increase of testing and research expenses undertaken by SMEs (12% to 17%; 6% to 14% for large enterprises) will continue to be applied to the scheme that has offered a tax credit in accordance with the total cost of such expenses, and the measure that provides an additional 10% tax credit to the upper limit in cases where testing and research expenses increase by more than 5%, will continue to be offered. Additionally, the scheme that offers a tax credit on the total cost of special testing and research expenses (testing and research performed jointly or entrusted to a university, a national institution or enterprise), and the tax scheme that deducts an amount in accordance with the excess amount in cases where the amount of testing and research expenditure exceeds 10% of average sales, will continue to be offered. (Ongoing)

6. **Support under the Small Business Innovation Research (SBIR) Program**
The provision of central government-allocated R&D spending for SMEs and micro businesses will be expanded and the commercialization of the results of technological development activities will be promoted, such as by designating specific subsidies for the development of new technologies leading to the creation of new industries, setting targets for expenditures, and formulating policies for measures to support the commercialization of development results achieved using specified subsidies. Additionally, to promote the commercialization of technology development outcomes, SMEs and micro businesses will be informed and encouraged to take advantage of the available commercialization support, such as the database of the technological capabilities of enterprises granted specific subsidies, and the low

interest loans will be offered by the Japan Finance Corporation (JFC). At the same time, the multistage selection process for the allocation of special subsidies will be introduced and expanded. (Ongoing)

7. Cross-field collaboration for new business development

Pursuant to the Law Concerning Measures for the Promotion of Creative Business Activities by Small and Medium Enterprises, authorization and subsidies will be provided for business plans that aim to develop and market new products and services by effectively combining the management resources (technology, markets, etc.) of SMEs in different sectors, in addition to providing wide-ranging support through special loans and guarantees. (Ongoing)

8. Program to promote business creation through medical-engineering collaborations

[Fiscal 2018 budget: ¥3.04 billion]

To promote the network for supporting the development of medical equipment and to provide seamless support from the initial stages of development to commercialization, accompanying-style consultation will be provided. In fiscal 2018, support will also be provided for the commercialization of approximately 35 items of medical equipment through a development and demonstration program, to promote the development of medical equipment through collaborations between manufacturing SMEs and medical institutions. (Ongoing)

9. Enterprise vitality enhancement funding (in relation to the Manufacturing Act)

[Fiscal investment and loan program]

Japan Finance Corporation (JFC) will provide loans for funds needed to modernize management and rationalize the distribution systems of SME commercial businesses and service businesses, promote the advancement of basic manufacturing technologies of SMEs, and develop SME subcontractors. (Ongoing)

10. Fund Investment Program (Startup Support Fund, SME Growth Support Fund)

The creation of investment funds operated by private sector investment companies to stimulate private funds will be promoted through investment by SMRJ (up to one half of the total value of the fund concerned) with the aim of expanding the range of opportunities for investment in ventures (SMEs) at the startup or early growth stage and in SMEs pursuing growth through the development of new business. (Ongoing)

11. Management Innovation Support Program

Support will be provided for new business activities undertaken by SMEs through mechanisms such as low-interest loan programs and special credit guarantees for the implementation of approved management innovation plans prepared by SMEs planning to engage in new business activities to improve their business performance under the Act on Strengthening the Management of SMEs, etc. (Ongoing)

12. Act for Strengthening the Management of SMEs, etc.

The Bill for Partial Amendment to the Act for Strengthening the Management of SMEs, etc. and the Act on Strengthening Industrial Competitiveness has been submitted to the 196th ordinary session of the Diet. It sets forth the following measures: (1) support such as taxation measures and succession of licenses and permits to SMEs that aim to enhance their management by inheriting the business of another company through M&A or other such means, in response to the increase in the succession of business by non-family members and individual outside the company; (2) the introduction of a system for renewal of the certification of management innovation support organizations and regular verification of their work performance, to strengthen management support frameworks; and (3) development of a support framework for promoting the introduction of IT among SMEs. Additionally, continued measures will be taken to provide taxation and financial support to SMEs that have formulated an approved management capability enhancement plan based on the Act for Strengthening the Management of SMEs, etc., such as through the scheme for reducing the fixed assets tax and the loan system of the Japan Finance Corporation. (New)

13. Taxation scheme for strengthening the management of SMEs [Taxation scheme]

The scheme that provides SMEs that have an approved plan under the Act for Strengthening the Management of SMEs, etc. an immediate depreciation deduction or a 10% tax credit (7% for enterprises with a capital of more than ¥30 million) for their acquisition of facilities needed to strengthen their management capabilities, will continue to be offered. (Ongoing)

14. Taxation scheme to promote income expansion [Taxation scheme]

To support SMEs, etc. that make efforts for sustainable wage increases and human resource investments, a measure will be offered that provides a tax credit at a certain rate that corresponds to the amount of increase in salaries and other payments in cases where such increases have been achieved, under the fiscal 2018 tax reform. More specifically, (1) where the amount of salaries to continuing employees and other amounts paid have increased by more than 1.5% compared to the previous year, 15% the amount of increase in salaries and other amounts paid from the previous year will be deducted from taxes, and (2) where the

amount of salaries to continuing employees and other amounts paid have increased by more than 2.5% compared to the previous year and efforts for human resource investments and productivity improvement are made, 25% the amount of increase in salaries and other amounts paid compared to the previous year will be deducted from taxes. (Ongoing)

Section 2 Promotion of IT

1. **Investment and loan program for computerizing governmental financial institutions (IT utilization promotion fund)**
   [Fiscal investment and loan program]
   JFC loans will be provided to SMEs to promote the utilization of IT that would contribute to increasing their productivity, and a measure will be taken to reduce the interest rate on loans to enterprises that implement information security measures accompanying IT investments. (Ongoing)

Chapter 2 Promotion of regeneration via business succession, reorganization and/or integration, and responses to the shortage of human resources

Section 1 Support for business succession

1. Support program for SME revitalization and business succession (Business succession support)

[Fiscal 2018 budget: Included in ¥6.88 billion]

Business Succession Support Centers established within an approved support organization in each prefecture will provide information and advice on business succession to SMEs and micro businesses facing the problem of lack of successor, and will also provide support for business match-ups through M&A and other such schemes. In fiscal 2018, cooperation will be strengthened not only with Business Succession Networks (see below) and SME support organizations but also with Business Succession Support Centers, businesses will be encouraged to realize early and systematic business succession, and the framework for business matchup support such as through small-scale M&A schemes will also be strengthened. (Ongoing)

2. System of deferral and exemption of payment of inheritance tax and gift tax on non-listed shares (business succession taxation scheme)

[Taxation scheme]

The business succession taxation scheme that defers the payment of gift tax and inheritance tax at the time of business succession will be fundamentally expanded for businesses that submit a business succession plan (provisional name) within the next five years and actually transfer the business within the next ten years. More specifically, (1) the number of relevant shares and deferral rate will be expanded, (2) the eligibility for the scheme will be expanded, (3) employment requirements will be made more flexible, and (4) a new tax reduction and exemption system will be established.

(1) The upper limit for the number of relevant shares will be eliminated, and the scope of the scheme will include all shares. The tax payment deferral rate will be raised to 100% to prevent tax burdens at the time of business succession.

(2) The scope of the scheme will also include business successions by representative successors (max. 3 people) from among multiple shareholders that include non-family members, to support diverse styles of business succession in response to the actual state of management in SMEs.

(3) The deferral will remain valid even if the employment requirement of maintaining an average of 80% or more of employment over a period of five years is not achieved (if deterioration of management is the reason, the guidance and advice of an approved support agency is required).

(4) The difference between the amount of taxes calculated based on the selling price or the stock price at the time of closure and the amount of taxes calculated based on the stock price at the time of business succession will be exempt from taxes, to mitigate future concerns regarding changes in the business environment.

*In addition to the above, the scope of application of the system for settlement at time of inheritance will be expanded, and other necessary measures will be provided. (Ongoing)

3. Establishment of a measure for mitigating the burden of tax related to business reorganization, etc. by SMEs and micro businesses

SMEs and micro businesses that cannot realize business succession due to a lack of successor should attempt to continue their business or pass down their technologies by reorganizing or integrating their management resources or business through M&A. Toward this end, a measure will be established that would accelerate the handing over of management to the next generation by reducing the registration and license tax and real estate acquisition tax that are incurred when a reorganization or integration is achieved based on a management enhancement plan (provisional name) approved under the Act on Strengthening the Management of SMEs, etc. (New)

4. Comprehensive support under the Management Succession Facilitation Act

The Act on Facilitation of Succession of Management of Small and Medium Sized Enterprises incorporates comprehensive support for business successions, involving special treatment under the Civil Code to resolve the constraints on legally secured portions of successions. Confirmations of qualification for this special treatment will be granted by the Minister of Economy, Trade, and Industry. (Ongoing)

Additionally, to respond to needs for stock acquisition funds, etc. by third parties (parties planning to succeed a business) when succeeding a business such as through M&A, the scope of application for financial support will be expanded to include SMEs, etc. that are making the acquisition but have yet to appoint a representative. (Ongoing)

5. Support to facilitate business successions

For wide-ranging and in-depth support for SME business successions throughout Japan, various events will be held to provide training for SME support providers and raise SME managers' awareness through business succession forums. (Ongoing)

6. **Program for concentrated support for business succession and generational change (program for advanced business succession support)**
Regional business succession support networks will be established by support agencies located in each prefecture, to promote community-based business succession support in cooperation with local governments. Support agencies that play a central role in supporting business succession in each region will make advanced approaches to communities and industries that particularly need support in a concentrated and effective manner based on an analysis of advanced data such as on the risks of business suspension and closures in each region and industry that is supplied from the central government. To ensure effective analysis and utilization of the data, core support agencies will be supported in their efforts to hold training programs and workshops that would provide their managers with the necessary skills and abilities, and coordinators with specialized perspectives and attributes will be assigned. (New)

7. **Program for concentrated support for business succession and generational change (business succession subsidy)**
Support will be provided to SMEs engaging in business innovation or transformation in the form of a subsidy to cover the necessary expenses for capital investment, market expansion, and abolishment of the existing business. Additionally, a new scheme will be established to support the expenses incurred for initiatives that aim to maintain and further invigorate the supply chain or regional economy by promoting business reorganization and integration toward the continuation of valuable business that are rooted in the supply chain or region. (Ongoing)

8. **Small Enterprise Mutual Relief System**
The Small Enterprise Mutual Relief System is a system for giving micro business owners a retirement benefit. Ongoing efforts will be made to promote enrollment in the system and ensure steady supply of mutual aid money. (Ongoing)

Section 2 Human resource and employment measures

1. **Program to support regional SMEs acquire human resources**
[Fiscal 2018 budget: Included in ¥1.85 billion]
To help SMEs and micro businesses with few management resources acquire human resources, support will be provided in excavating, introducing and retaining human resources that are sought by local SMEs and micro businesses from within and outside the region, in consideration of regional characteristics. (Ongoing)
Additionally, consideration will be given to establishing a sustainable scheme that would allow SMEs to secure core human resources (creation of best practices). (New)

2. **Support program for development of core human resources in SME service industries [Fiscal 2018 budget: ¥85 million]**
To develop next-generation managers in SME service businesses and increase productivity in the services industry, the program will match up SME service businesses with blue-chip enterprises and organize hands-on training (intensive training) programs. The program will provide an opportunity for SME service businesses to experience the key to business success, and will fund part of the cost of training. (Ongoing)

3. **Smart manufacturing support program [Fiscal 2017 budget: Included in ¥1.67 billion]**
The program will promote productivity improvement and new business cultivation by SMEs and micro businesses in manufacturing industries by implementing training that provides versatile leadership skills to human resources having rich experience in the production field and those possessing knowledge of IoT and robots, and by dispatching these trained leaders to SMEs and micro businesses. In fiscal 2018, the subsidy rate will be halved, but efforts will be made to implement the program in 40 nationwide locations. (Ongoing)

4. **Program for development of human resources to support micro businesses**
[Fiscal 2018 budget: Included in ¥1.85 billion]
Training for improving business guidance skills will be provided nationwide by business leaders in societies and chambers of commerce and industry. (Ongoing)

5. **Program for development of human resources to support SMEs**
[Fiscal 2018 budget: ¥120 million]
Town managers who drive community development initiatives will be developed by providing classroom training and practical internship training on business startup and management skills and skills that are particularly required for community development, such as vacant store countermeasures and consensus building methods. (Ongoing)

6. **Human resource development program at the**

Institute for Small Business Management and Technology

At the Institute for Small Business Management and Technology located in nine nationwide locations, training will be provided that leads directly to the solution of business challenges faced by corporate managers and operations managers of SMEs. (Ongoing) Additionally, the functions of the institute will be strengthened on a full scale, such as by increasing training programs to improve the attendance of local businesses and introducing advanced practical programs. (Ongoing)

7. **Support program for human resource development in SMEs and micro businesses [Fiscal 2018 budget: Included in ¥2.5 billion]**

The program will provide (1) basic business skills and (2) specialized skills required in SMEs to personnel who have the potential to become managers or manager-level personnel in SMEs, through diverse styles that include classroom lectures and online courses. (New)

8. **Support program for development of hometown producers**

[Fiscal 2018 budget: Included in ¥1.05 billion]

Support will be provided to initiatives that aim to develop attractive products that involve local people and local resources into local brands and initiatives for developing human resources who could become central players in cultivating markets and attracting people to the regions. (Ongoing)

9. **Measures to maintain workers' employment [Fiscal 2018 budget: ¥5.23 billion]**

Employment Adjustment Subsidies will be provided to assist employers who are forced to downsize due to fluctuations in business conditions or other economic reasons but who keep workers on by allowing workers to take temporary leave from work or enter training, or by transferring workers. Active steps will also be taken to prevent fraudulent receipt of these subsidies, and efforts will be made to ensure more appropriate disbursement by such means as actively carrying out on-site checks and publishing the names of employers who have committed fraud. (Ongoing)

10. **Support for improvement of employment management toward the creation of attractive employment [Fiscal 2018 budget: ¥17.59 billion]**

To support corporate initiatives to improve their employment management and create attractive employment, the subsidy for supporting the acquisition of human resources will be provided to SME organizations (business cooperatives, etc.) having improvement plans certified by the relevant prefectural governor pursuant to the Act on the Promotion of Improvement of Employment Management in Small and Medium- Sized Enterprises for Securing Manpower and Creating Quality Jobs, where they have implemented projects to improve their working environment. The subsidy will also be provided to SMEs and micro businesses that introduce a new employment management system and succeed in lowering the job separation rate of their employees after a year. Similarly, it will be provided to businesses that introduce assistive nursing care devices and lower the job separation rate of their employees, and to business owners of nursing care or childcare services who lower the job separation rate of their employees by developing a proper wage system. It will furthermore be provided to business owners who improve productivity, increase wages and lower the job separation rate of their employees by developing a personnel evaluation system which includes an assessment of ability. In April 2018, a new subsidy for support of facility improvement is planned to be established. It will be provided to business owners who attempt to improve their employment management by creating an employment management improvement plan and making the relevant capital investment based on that plan, and who succeed in improving their employment management and increasing productivity to a certain extent. Additionally, a subsidy will be provided to SME construction business owners who achieve their goal of hiring a certain ratio of young people and women after receiving a subsidy under the subsidy program for employment management systems, and who revise their wage scale or increase the qualification allowance of registered core technicians they employ. A subsidy will also be provided to construction business owners and construction business organizations that take initiative to employ and retain young people and female workers, and to vocational training corporations that promote vocational training in tasks related to construction work. In addition to the above, a subsidy will be provided to SME construction business owners who maintain dormitories for workers located in the three disaster-affected prefectures, SME principal construction business owners who leases dedicated facilities for female workers in their construction work site, and vocational training corporations that install the necessary facilities for implementing certified training. (Ongoing)

11. **Regional employment development subsidy (regional employment development course) [Fiscal 2018 budget: ¥3.41 billion]**

To create and provide stable regional employment, employers who build or establish an office in regions, etc. where employment opportunities are particularly lacking and who also employ regional job seekers will be offered a regional employment development

subsidy (regional employment development course) in accordance with the cost of their establishment and the number of workers they employ. (Ongoing)

12. Employment creation project for regional revitalization [Fiscal 2018 budget: ¥5.32 billion]

To promote initiatives aimed at creating favorable and stable employment opportunities, an employment creation project for regional revitalization was launched in support of prefectures that endeavor to create employment for regular employees in conjunction with industrial policies. (Ongoing)

Additionally, from fiscal 2018, a preferential measure that raises the upper subsidy limit will be offered to prefectural governments that implement initiatives that contribute to workstyle reforms in SMEs and micro businesses. (New)

13. Promotion of employment shifts with no loss of employment [Fiscal 2018 budget: ¥6.36 billion]

A subsidy that supports employment shifts (re-employment support course) will be provided to business owners who employ the services of a private-sector employment agency to support the re-employment of employees who unavoidably lose their jobs due to business downsizing, etc. (workers who fall under a re-employment support plan). Additionally, a subsidy that supports employment shifts (early employment support course) will be provided to business owners who employ workers who fall under a re-employment support plan at an early stage or who provide training to such workers. Furthermore, a subsidy that supports employment shifts (mid-career employment expansion course) will be provided to business owners who expand their employment of mid-career recruits upon developing an employment management system for mid-career recruits, with an eye to increasing productivity. (Ongoing)

14. Program for promoting measures for the acquisition of human resources [Fiscal 2018 budget: ¥2.58 billion]

The framework of "Welfare Worker Corners," which are dedicated to providing support in the welfare sector (nursing, healthcare and day care), will be expanded to provide comprehensive specialized support in sectors where human resources are in need, such as the construction, security, and transport industries, to strengthen support for match-ups. (Ongoing)

15. "Youth Yell" certification system based on the Act on Promotion of Youth Employment [Fiscal 2018 budget: Included in ¥560 million]

Based on the Act on Promotion of Youth Employment (1970 Act no. 98), the Minister of Health, Labour and Welfare certifies SMEs that display outstanding employment and management of youths as "youth yell" certification enterprises. By encouraging the information dissemination efforts of SMEs, the system supports the smooth employment of human resources sought by certified enterprises. (Ongoing)

16. Support for SMEs and micro businesses in raising the minimum wage [Fiscal 2018 budget: ¥2.9 billion]

The following support measures will be provided to increase the productivity of SMEs and micro businesses, toward raising the minimum wage.

(1) "Workstyle Reform Promotion Support Centers" will be established throughout Japan (47 locations) as a one-stop portal for consultation on workstyle reforms, to provide consultation and dispatch experts free of charge. (New)

(2) SME organizations that implement initiatives for increasing productivity toward reducing working hours and increasing wages in subsidiary enterprises will be supported by subsidies to cover the cost they require to implement those initiatives. (New)

(3) SMEs and micro businesses in 47 nationwide prefectures that make a capital investment to increase labor productivity and increase the wages of workers who work for less than ¥1,000 an hour in their business establishments by more than ¥30 shall be supported by a subsidy to cover part of that investment (subsidy rate of 7/10 (3/4 for micro businesses with a workforce of 30 or less)), and shall also receive an additional amount on top of the upper limit of the subsidy in accordance with the number of workers whose wages were increased (1 to 3 workers: ¥500,000; 4 to 6 workers: ¥700,000; 7 or more workers: ¥1 million). (Ongoing)

17. Dissemination and promotion of career consulting services

The utilization of career consulting (offering advice and guidance in response to consultations concerning occupational selection by workers, occupational life planning, or the development and improvement of occupational capacities) will be disseminated and promoted in private employment agencies, employment support organizations, personnel management and human resource development departments in companies, and career education in schools. In April 2016, career consultants, who engage in career consulting as a specialty, were designated as a national qualification, so efforts will be made to disseminate the qualification. Additionally, the dissemination and expansion of "self-career examination" will continue to be promoted among enterprises as a scheme for offering regular career consultation opportunities at certain junctions of their employees, such as age, number of years in employment, promotion to a post, etc., to support employee awareness of career development. (Ongoing)

18. Taxation scheme to promote income expansion [Taxation scheme]

To strongly support SMEs, etc. that engage in wage increases and human resource investments, the taxation scheme to promote income expansion by deducting from corporate tax part of the amount of any increases in salaries and other amounts paid to employees, will be expanded under the fiscal 2018 tax reform. More specifically, (1) SMEs whose average salary has increased by more than 1.5% compared to the previous fiscal year will receive a 15% tax credit on the amount of increase in total salaries paid during the previous fiscal year, and (2) SMEs whose average salary has increased by 2.5% from the previous fiscal year and who engages in human resource investments and productivity improvement will receive a 25% tax credit on the amount of increase in total salaries paid during the previous fiscal year. (Ongoing)

Chapter 3 Measures for micro businesses, support for overseas expansion and expansion of inbound demand, and financial support

Section 1 Support for sustainable development of micro businesses

1. **Micro business promotion program**
[Fiscal 2018 budget: ¥4.94 billion]
Support for micro businesses will be promoted through the "accompaniment" style of support provided by societies and chambers of commerce and industry in line with management development support plans that are certified based on the Small Business Support Act, and support will be provided for the formulation of business plans and market development in consideration of demand by micro businesses. To encourage business expansion by regional micro businesses aiming to target nationwide markets, societies and chambers of commerce and industry will cooperate with businesses to provide wide-ranging support for programs that develop special regional products and tourism and to develop those markets. (Ongoing)

2. **Managerial Improvement Loans for micro businesses [Fiscal investment and loan program]**
In order to provide financial support to micro businesses, JFC will provide unsecured and unguaranteed low-interest loans to micro businesses that receive management guidance from societies and chambers of commerce and industry and prefectural federations of societies of commerce and industry. (Ongoing)

3. **Micro business management development support loans**
[Fiscal investment and loan program]
To support sustainable business development by micro businesses, JFC will offer low-interest loans to micro businesses that receive management guidance from societies and chambers of commerce and industry certified under a management development support plan. (Ongoing)

4. **Certification of management development support plans based on the Small Business Support Act**
Management development support plans that are formulated and implemented by micro businesses with support from societies and chambers of commerce and industry as part of their "accompaniment" style of support of micro businesses based on the Small Business Support Act, will be certified. (Ongoing)

Section 2 Support for overseas expansion by SMEs

1. **Program for supporting overseas expansion by SMEs and micro businesses**
[Fiscal 2018 budget: ¥2.04 billion]
To support overseas expansion by SMEs and micro businesses, the SMRJ and JETRO will collaborate in providing strategic support through measures that respond to their needs at various stages of overseas expansion. They include support for the cultivation of overseas companies through the provision of information on overseas market trends and regulations, implementation of feasibility studies, and establishment of an export framework, as well as support for participation in trade fairs in Japan and overseas, support for the cultivation of overseas markets by inviting overseas buyers to Japan, support for dissemination of the certificate of origin system based on economic partnership agreements, and local support once companies advance overseas. (Ongoing)

2. **JAPAN Brand Development Assistance Program**
[Fiscal 2018 budget: Included in ¥1.05 billion]
To facilitate overseas expansion by SMEs, support will be provided under this program such as for the formulation of strategies built on collaboration among multiple SMEs and the strengths of those SMEs (raw materials, technologies, etc.), product development based on those strategies and participation in overseas trade fairs. (Ongoing)

Section 3 Other support policies for overseas expansion

1. **Global alliance support with medium enterprises an SMEs in Japan**
To support investment tie-ups between medium enterprises and SMEs in Japan and foreign enterprises, relevant institutions such as JETRO and SMRJ will continue to promote business match-ups between foreign enterprises that are interested in investing in Japan and medium enterprises and SMEs in Japan. (Ongoing)

2. **Funding for overseas expansion and business restructuring operations**
[Fiscal investment and loan program]
Loans will be provided by JFC to assist with the funding of SMEs that for business reasons need to expand overseas or restructure their overseas business to adapt to structural economic changes. (Ongoing)

3. Support for overseas subsidiaries to obtain capital, etc.

Where overseas subsidiaries of SMEs whose management plan is approved under the Act for Strengthening the Management of SMEs, etc. have loans from local financial institutions, JFC will provide guarantees (issued standby credits) for those loans and will also provide support for the procurement of funds by those overseas subsidiaries. (Ongoing)

4. Program for cultivation of emerging markets based on technical cooperation

[Fiscal 2018 budget: Included in ¥4.56 billion]

The following three initiatives will be implemented to support Japanese companies in acquiring emerging markets. (Ongoing)

(1) Support will be provided to managers and engineers in developing countries who engage in management, manufacturing, operations, etc., by offering training programs in Japan and guidance by dispatched experts.

(2) To develop skilled foreign human resources in Japan and strengthen the framework of Japanese companies, foreign workers will be given opportunities for internships in Japanese companies.

(3) Support will be provided to Japanese companies engaging in the development of products and services that resolve social issues in developing countries in collaboration with universities, research institutes, NGOs or other companies in developing countries.

5. Utilization of the private-sector collaborative volunteer program and matchups with returned JICA volunteers

[Fiscal 2018 budget: Included in ¥150.47 billion]

The Japan International Cooperation Agency (JICA) will work toward developing personnel capable of active involvement in the global community by utilizing the private-sector collaborative volunteer program to dispatch employees of private-sector enterprises to developing countries as Japan Overseas Cooperation Volunteers (JOCV) and JOCV Senior Overseas Volunteers in response to the needs of each enterprise. Additionally, to support the employment of returned JICA volunteers, match-ups will be promoted between personnel with expert knowledge of a certain developing country and enterprises seeking such personnel. (Ongoing)

6. Reduction and waiver of fees for credit checks on SMEs using trade insurance

To support the use of trade insurance by exporting SMEs, Nippon Export and Investment Insurance (NEXI) continue arrangements to acquire and bear the cost of acquiring credit information on business partners that is required for rating SMEs that wish to use trade insurance. (Ongoing)

7. Activities to expand and publicize use of trade insurance by SMEs (seminars, consultation events, etc.)

To promote the use of trade insurance by SMEs, the NEXI website for SMEs will be renewed. Instructors from NEXI will be sent to lecture in seminars hosted by JETRO and other such organizations and study meetings of affiliated regional banks to raise awareness and encourage wider use of trade insurance. These information sessions will aim to promote greater understanding and dissemination of trade insurance mainly by introducing the exports payment insurance for SMEs and the agriculture, forestry and fisheries industry using videos and manga pamphlets to facilitate better understanding. (Ongoing)

8. Improvement of access to trade insurance

In December 2011, NEXI launched the "SME Overseas Business Support Network" in collaboration with 11 regional banks to provide support for overseas business expansion by SMEs. The numbers of cooperating institutions have increased yearly, and in fiscal 2016, a Credit Union Network was established with the participation of credit unions. As of February 2018, a network of 117 nationwide financial institutions has been established, but ongoing efforts will be made for further expansion of the network. (Ongoing)

9. Support for security export control

Support will be provided for the development of voluntary administration structures for security trade control at SMEs that engage in export and the provision of technology, by holding information sessions for ensuring effective security trade control based on the Foreign Exchange and Foreign Trade Act, and dispatching specialists in collaboration with the SMRJ and JETRO. (Ongoing)

10. Promotion of BOP business

"Base of the pyramid" (BOP) business and volume zone business will be promoted to support the business expansion of Japanese companies in growth markets in developing countries. Specifically, JETRO will provide individual support to enterprises as appropriate to their business phase, by using local coordinators. Additionally, Japanese enterprises that are considering BOP business will be encouraged to advance into BOP and volume zone businesses, by organizing consultation/business meetings in Japan, providing marketing support through the implementation of relevant surveys, and also providing local matchup support. Furthermore, demonstration projects will continue to be implemented in support of enterprises that aim to establish a business base in Africa. (Ongoing)

11. **Program for basic studies, feasibility studies, dissemination and demonstration (ODA matchup program for SME products and technologies)**
[Fiscal 2018 budget: Included in ¥150.5 billion]
This program aims to apply the outstanding products and technologies of Japanese SMEs to the growth of developing countries via ODA, and thereby achieve a balance between the growth of developing countries and economic revitalization in Japan. (Ongoing)

12. **Support for overseas expansion by SMEs (provision of equipment that use SME products)**
[Fiscal 2018 budget: Included in ¥160.5 billion]
Products from Japanese SMEs are donated to developing countries based on requests from their governments and development needs, not only to support the development of developing countries, but also to increase recognition of such products. (Ongoing)

13. **New Export Nation Consortium**
[Fiscal 2018 budget: Included in ¥23.93 billion]
To support the overseas expansion of medium enterprises and SMEs, the New Export Nation Consortium was established in February 2016 widely composed of support organizations such as JETRO, SMRJ, NEDO, and financial institutions. It provides comprehensive support, from the formulation of business plans to market cultivation and local business meetings, through experts who offer close assistance to enterprises and the utilization of various support schemes. (Ongoing)

Section 4 Support for expanding inbound demand, utilization of local resources

1. **Program for supporting hometown specialty products [Fiscal 2018 budget: Included in ¥1.05 billion]**
Support will be provided to SMEs and micro businesses that engage in the development of new products and services and the development of new markets by utilizing regional resources and collaborating with agriculture, forestry and fishery businesses. Support will also be provided to businesses that pursue product development by utilizing regional resources and collaborating with agriculture, forestry and fishery businesses in the form of information provision concerning consumer preferences surveyed by general incorporated associations and matching services. (Ongoing)

2. **JAPAN Brand Development Assistance Program**
[Fiscal 2018 budget: Included in ¥1.05 billion]
To facilitate overseas expansion by SMEs, support will be provided under this program such as for the formulation of strategies built on collaboration among multiple SMEs and the strengths of those SMEs (raw materials, technologies, etc.), product development based on those strategies and participation in overseas trade fairs. (Ongoing) (Cited earlier)

3. **Support for cultivation of markets through exhibitions, business meeting events, and other events**
SMRJ will provide support for the development and expansion of markets for products and services developed by SMEs and micro businesses through agricultural-commercial-industrial collaborations or by using local resources, by organizing exhibitions, business fairs, and other such events. (Ongoing)

4. **Market Development Coordination Program**
Market development experts with experience in working at trading companies, manufacturers, etc. ("market development coordinators") assigned to SMRJ will help SMEs with newly developed products, technologies, and services gain a foothold in new markets and acquire the capacity for market cultivation through the implementation of test marketing activities in the wider Tokyo and Kinki regions. (Ongoing)

5. **Support program for market cultivation**
SMRJ will support the market cultivation initiatives of SMEs and venture enterprises by promoting business match-ups between enterprises participating in SMRJ-sponsored trade fairs or concurrent events and buyers, and providing advice. (Ongoing)

6. **Support for creation of new businesses**
Close, integrated support will be provided to SMEs and other entities engaging in new business by stationing experts in marketing and other areas of business in the 10 nationwide branches and offices of SMRJ to help formulate business plans based on the Act for Strengthening the Management of SMEs, etc., the Regional Resource Utilization Promotion Act, and the Agricultural-Commercial-Industrial Collaboration Promotion Act. (Ongoing)

7. **J-GoodTech**
SMRJ will provide support to SMEs seeking to cultivate markets in and outside of Japan, by connecting them to major domestic manufacturers and overseas enterprises via a website that posts information about Japanese SMEs boasting outstanding technologies and products. (Ongoing)

8. **Support program for development of new tourism products**
[Fiscal 2017 budget: ¥5.85 billion]

Support will be provided to groups of SMEs and micro businesses having approved business plans based on the SME Regional Resources Utilization Promotion Act and who work in cooperation with local governments and other such organizations to implement schemes for the development of new products or cultivation of new markets by utilizing local cultural resources of hometown specialty goods, or implement initiatives that aim to improve the environment for visitors who wish to stay in the regions. (New)

9. Comprehensive support for the revitalization of local shopping districts
Pursuant to the Local Shopping District Revitalization Act, support measures will be established for shopping districts with a government-approved revitalization project plan. (Ongoing)

10. Development of human resources by the Japan Shopping District Support Center
Support will be provided in the form of personnel training and transfer of expertise by the Japan Shopping District Support Center, an organization established jointly by four SME associations. (Ongoing)

11. Program to support the operation of Councils for the Revitalization of Central Urban Districts
Support will be provided for the provision of advisory services, provision of information via websites and e-mail newsletters, and development of networks through the organization of exchange events led by support centers established in SMRJ to assist the establishment and operation of Councils for the Revitalization of Central Urban Districts. (Ongoing)

12. Program to dispatch advisers for city center and shopping district revitalization
Experts in a range of fields related to commercial revitalization registered with SMRJ will be dispatched to help tackle various challenges faced by Councils for the Revitalization of Central Urban Districts. (Ongoing)

13. Consultation and support for commercial revitalization in city centers
In order to assist commercial revitalization initiatives being undertaken in city centers by Councils for the Revitalization of Central Urban Districts and similar organizations, seminar planning support and instructors will be supplied, and advice, analyses, assistance with identification of issues, and information, etc. will be provided to raise the efficacy of individual projects using SMRJ's specialized know-how. (Ongoing)

14. Enterprise vitality enhancement funding (for the distribution and service industries) [Fiscal investment and loan program]
Japan Finance Corporation (JFC) will provide loans for funds needed to modernize management and rationalize the distribution systems of SME commercial businesses and service businesses, and to minimize vacant houses and stores. (Ongoing)

15. Program to support commercial revitalization in local communities and town centers
[Fiscal 2018 budget: ¥1.63 billion]
Support will be provided to initiatives such as for providing childcare and elderly care services in shopping districts, attracting businesses to vacant stores, and developing commercial complexes in city centers. (Ongoing)

16. Taxation measures to revitalize central urban districts [Taxation scheme]
Under the "Certified specific private sector central urban district economic activity improvement program plan" set up under the revisions to the Act on the Vitalization of City Centers, a measure for the acquisition of an immovable property will be implemented that halves the registration and license tax payable when ownership of that immovable property is registered or a transfer is registered. (Ongoing)

17. JAPAN Brand Development Assistance Program
[Fiscal 2018 budget: Included in ¥1.05 billion]
To facilitate overseas expansion by SMEs, support will be provided under this program such as for the formulation of strategies built on collaboration among multiple SMEs and the strengths of those SMEs (raw materials, technologies, etc.), product development based on those strategies and participation in overseas trade fairs. (Ongoing) (Cited earlier)

18. Micro business promotion program
[Fiscal 2018 budget: ¥4.94 billion]
Support for micro businesses will be promoted through the "accompaniment" style of support provided by societies and chambers of commerce and industry in line with management development support plans that are certified based on the Small Business Support Act, and support will be provided for the formulation of business plans and market development in consideration of demand by micro businesses. To encourage business expansion by regional micro businesses aiming to target nationwide markets, societies and chambers of commerce and industry will cooperate with businesses to provide wide-ranging support for programs that develop special regional products and tourism and to develop those markets. (Ongoing) (Cited earlier)

19. Designation of traditional crafts

Under the Act on the Promotion of Traditional Craft Industries (referred to hereinafter as the Traditional Craft Industries Act), a traditional craft will be designated, or a change in designation will be made, following surveys and investigations of craft products for which traditional craft product status has been requested, subject to the views of the Industrial Structure Council. (Ongoing)

20. Traditional Craft Product Subsidy Program [Fiscal 2018 budget: ¥1.11 billion]

(1) Based on the Traditional Craft Industries Act, the following support will be provided to promote the traditional crafts industries. (Ongoing)
   1) Subsidization of the following programs undertaken by local manufacturing cooperatives and associations:
      - Successor training programs
      - Raw materials sourcing programs
      - Design development programs
      - Partnership development programs
      - Local producer programs, etc.
   2) Subsidization of the following programs undertaken by general incorporated associations and incorporated foundations under Article 23 of the Traditional Craft Industries Act:
      - Programs to secure human resources and ensure transmission of skills and techniques
      - Production district guidance programs
      - Promotional programs
      - Demand development programs, etc.

(2) Promotion of production region brands
To help attract tourists to regions where traditional crafts are produced and cultivate overseas markets, support will be provided to initiatives that aim to invite designers or other external human resources to such regions. (Ongoing)

21. Program to promote the spread of traditional crafts

To promote public awareness of traditional crafts, November every year has been designated Traditional Crafts Month, and activities such as the national convention of the Traditional Crafts Month National Assembly are held to spread and increase awareness of traditional crafts. (Ongoing)

22. Local 10,000 Projects (Subsidies for business generating regional economic activity)
[Fiscal 2018 budget: Included in ¥1.45 billion]

To support the startup of region-based enterprises with large employment absorption capacity by making use of regional assets and funding (drawn from regional financial institutions, etc.) through the collaboration of industry, academia, financial institutions and government, subsidies will be granted to cover part of the cost of subsidies provided by local public organizations for expenditure required by private sector businesses at the business establishment phase. From fiscal 2018, the scope of support will be strengthened, such as by including businesses that receive financing from a fund for regional revitalization or other such subsidy under the scope of the project on a trial basis and expanding special tax allocation measures. (Ongoing)

Section 5 Other regional revitalization measures

1. Promotion of regional future investment

To revitalize regional economies, companies expected to play a central role in the regions will continue to be selected for support as "driving companies for the regional future," and projects that have a large ripple effect on regional economies will be selectively supported by fully applying the budgetary, taxation, financial and deregulation measures of the Regional Future Investment Promotion Act. (Ongoing)

2. Taxation scheme to strengthen the regional location of enterprises [Taxation scheme]

In order to revitalize the regions, it is necessary to correct the over-concentration of population and industry in Tokyo and create good quality employment in the regions. Toward this end, enterprises will be encouraged to relocate their head office functions (offices, research institutions, training centers) from Tokyo to the regions or to expand their business in the regions, by continuing to offer certified enterprises a choice of either a 15% special depreciation deduction on the cost of acquisition of an office building (25% in the case of relocation) or a 4% tax credit on the cost of acquisition (7% in the case of relocation), in addition to offering a tax deduction according to the number of people they employ in their regional offices and a local tax grant related to strengthening regional corporate centers. Under the fiscal 2018 tax reform, the scheme will be extended by two years, and (1) the employment requirements of the scheme as a whole will be relaxed, and (2) the scope of regions eligible for receiving support will be reviewed (to include city centers in the Kinki and Chubu regions) with respect to the relocation of enterprises that have a direct impact on Tokyo centralization. Furthermore, the measure to cover revenue decreases using the local allocation tax will be strengthened. (Ongoing)

3. Program for creation and support of regional core enterprises
[Fiscal 2018 budget: ¥2.15 billion]

To support the initiatives of potential regional core enterprises to foray into new sectors or businesses and promote their growth, support will be provided for the creation of nationwide networks with external

resources (universities, cooperating enterprises, financial institutions, etc.) using support personnel. Additionally, for further growth of regional core enterprises, support personnel will provide hands-on support for formulating business strategies, cultivating markets, and other such business activities. Furthermore, support will be provided for the formulation of business strategies and the cultivation of markets with an eye to the global market, through the Global Network Council composed of global coordinators who are experts in businesses that are suitable for the global market. (Ongoing)

4. **Promotion of initiatives for the creation of regional core city spheres**
[Fiscal 2018 budget: Included in ¥130 million]
Projects to support the creation of regional core city spheres will be commissioned under national expenditure, and regional fiscal measures will be applied to core cities and municipalities that have formulated a regional core city sphere vision, to support initiatives that contribute to driving economic growth in the sphere as a whole, consolidating and strengthening high-level city functions, and improving lifestyle-related functions and services. (Ongoing)

5. **Fund for productivity improvement in the tourism industry, etc. [Fiscal investment and loan program]**
To revitalize the Japanese economy by improving productivity in the tourism industry, etc. and increasing tourism income, JFC will provide loans to SMEs that provide high-quality services, etc. (Ongoing)

Section 6 Strengthening of management reform support and regeneration support

1. **Program to assist with formulating management reform plans by approved support agencies**
To promote management reform by SMEs and micro businesses that have a financial problem such as regarding the repayment burden of loans and require full-fledged management improvement that includes financial support and also by SMEs and micro businesses that particularly require prompt measures to improve their cash-flow and profitability management, the program will subsidize part (two-thirds) of the costs needed by approved support agencies (certified public tax accountants, CPAs, financial institutions, etc.) to provide SMEs and micro businesses assistance in formulating management reform plans and follow-up of those plans, under the Act on Strengthening the Management of SMEs, etc. (Ongoing)

2. **Support for capital investment through advancement programs integrated with business support**
Where SMEs work jointly to establish business cooperatives in order to shore up their administrative platforms and improve their business environment, SMRJ and prefectural governments will collaborate to provide consultation and advice on business plans together with long-term, low-interest (or interest-free) loans to fund the required capital expenditure. (Ongoing)

Chapter 4 Development of a stable business environment, increasing the numbers of vibrant workers

Section 1 Improvement of transaction conditions

1. Improvement of the transaction conditions of SME subcontractors

Based on the "Basic Policies for Future-oriented Trade Practices" (Seko Plan) that was released in September 2016 as a package of measures for promoting fair trade and enhancing added values, the Subcontractor Payment Act and relevant laws and regulations will be disseminated and enforced, and efforts will be made to ensure the steady implementation of voluntary action plans that set forth industrial initiatives for fair subcontract transactions and to expand the number of industries that participate in this initiative. Additionally, the interview surveys of SME subcontractors that have been undertaken by transaction investigators called "subcontract G-men" since fiscal 2017 will be strengthened by augmenting more personnel, to further assess the actual state of SME subcontractors. (Ongoing)

2. Stricter enforcement of the Subcontractor Payment Act

[Fiscal 2018 budget plan: Included in ¥1.39 billion]

To ensure fair treatment of subcontractors and protect their incomes, the Fair Trade Commission (FTC) and SME Agency will collaborate closely in enforcing the Subcontractor Payment Act. The FTC and SME Agency will continue to encourage rigorous compliance with the Act, by carrying out a written survey of principal contractors, and by collecting information on violations of the Act through an office set up specifically to receive such information and reports. (Ongoing)

3. Strengthening consultation systems and fair subcontracting transactions

[Fiscal 2018 budget plan: Included in ¥1.39 billion]

Consultation services concerning SME transactions will be provided by Subcontracting Help Centers that are to be set up in 48 locations throughout Japan, and individual guidance and seminars will be held on price negotiating know-how that managers and sales representatives in subcontracting SMEs require in holding price negotiations with the procurement department in the parent company. To prevent the occurrence of violations of the Subcontractor Payment Act, seminars will be held targeting the procurement managers at principal contractors to further raise awareness of the Subcontractor Payment Act etc., while examples of initiatives by principal contractors will be presented around the country and symposiums and other events held to promote broader adherence to the Subcontractor Payment Act. Furthermore, information sessions were held nationwide to disseminate the guidelines for establishing a favorable relationship between parent companies and subcontracting businesses (guidelines for promoting proper subcontracting transactions in 18 industries under the jurisdiction of the Ministry of Economy, Trade and Industry, the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Internal Affairs and Communications and the Ministry of Agriculture, Forestry and Fisheries). (Ongoing)

4. Self-reliance support for SME and micro subcontractors

[Fiscal 2018 budget plan: Included in ¥1.39 billion]

Under the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises, business plans designed to solve issues in collaboration between subcontracting SMEs and micro businesses that are highly transaction-dependent on principal contractors will be certified and supported in the form of subsidies, loans and special exemptions for guarantees. In regions where production centers of principal contractors have closed or downsized (or are slated to close), support in the form of subsidies will be provided to subcontracting SMEs seeking to advance into new fields. (Ongoing)

5. Support for market expansion through subcontracting business mediation and business fairs

[Fiscal 2017 budget plan: Included in ¥1.39 billion]

Using Business Matching Stations (BMS), SMEs looking to solicit new clients will be provided with information on orders for contract manufacturing issued and received between enterprises for business such as outsourced manufacturing in the SME's preferred industry and where the SME can provide the required equipment or technology. Broad-area information sessions will also be held to support new market development. (Ongoing)

6. Request to parent companies for consideration toward subcontractors

[Fiscal 2018 budget plan: Included in ¥1.39 billion]

The Minister of Economy, Trade and Industry and Fair Trade Commission will jointly issue a request to parent companies and industrial organizations for proper subcontracting transactions under the Subcontractor Payment Act and will aim to disseminate full understanding of the Act. Additionally, the Minister of Economy, Trade and Industry will also issue a

request (jointly with the relevant ministers in the case of industries under the jurisdiction of other ministries and agencies) to industrial organizations for compliance with the promotion standards as defined in the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises. (Ongoing)

Section 2 Measures concerning public demand

1. Formulation and dissemination of the "FY2018 Policy on State Contracts with Small and Medium Enterprises"

Cabinet approval will be given on measures that are contained in the Basic Policy on State Contracts with Small and Medium Enterprises that is formulated every year with the aim of achieving the target number of state contracts with new and existing SMEs and increase opportunities for SMEs to receive orders. (Ongoing)

Additionally, the following initiatives will be implemented to fully disseminate the Basic Policy.

(1) The Minister for Economy, Trade and Industry will explain the purport of the Basic Policy in writing to the heads of each agency and ministry, prefectural governors, all municipal mayors, and mayors of the Tokyo special wards, and also request that they make efforts to increase opportunities for SMEs and micro businesses to receive orders.

(2) Information sessions (Councils to Promote Local Access to Public Sector Demand) will be held throughout Japan to actively disseminate the Basic Policy in regional areas.

(3) Conferences (Councils to Promote Procurement from New SMEs) will be organized to discuss policies for information sharing and cooperation regarding initiatives for promoting procurement from new SMEs in regional areas.

(4) A "Guide to Contracts in the Public Sector" will be produced and distributed to central and local government agencies and other commerce and industry-related organizations.

2. Operation of the "Public Demand Portal Site" to expand opportunities for SMEs and micro businesses to receive orders from the public sector

[Fiscal 2018 budget plan: Included in ¥1.39 billion]

A Public Demand Information Portal Site will be operated that provides SMEs and micro businesses with one-stop access to order information posted on national government and other local public websites in order to improve access by SMEs and micro businesses to information on public sector orders. (Ongoing)

Section 3 Measures for pass-throughs of consumption tax

1. Programs to enhance monitoring and inspection regimes for consumption tax imputation

[Fiscal 2018 budget: ¥2.7 billion]

To ensure that consumption tax is passed through appropriately, "cost pass-through inspectors" will be assigned throughout Japan. At the same time, to collect information such as on refusals to pass through the consumption tax, a large-scale written survey will be carried out in conjunction with the Fair Trade Commission (FTC) in an effort to monitor and regulate acts of refusal to pass through the consumption tax. (Ongoing)

Section 4 Measures for reduced consumption tax rate system

1. Support for the introduction of cash registers and system renovations among SMEs in the retail trade industry

Support will be provided to help businesses prepare for the introduction and operation of the reduced consumption tax rate system. More specifically, (1) support for introducing cash registers that are compatible with multiple tax rates will be provided to SMEs in the retail trade industry, and (2) support for renovating electronic ordering systems that are not compatible with multiple tax rates will be provided to SMEs in the retail trade and wholesale trade industries. (Ongoing)

2. Consultation desks for inquiries regarding the reduced consumption tax rate system

[Fiscal 2018 budget: ¥1.94 billion]

Toward the smooth implementation of the reduced consumption tax rate system, detailed support will be provided in cooperation with SME organizations, etc. Seminars and forums will be held, consultation desks will be established, specialists will be dispatched to provide itinerary guidance, and such support measures will be disseminated via pamphlets and other such media. Support will also be provided through the operation of cost pass-through consultation desks. (Ongoing)

Section 5 Cash-flow assistance and business generation support

1. Safety net loans (funds in response to changes in the business environment)

[Fiscal investment and loan program]

JFC will provide financial support to SMEs and micro businesses that suffer a downturn in business conditions, such as a temporary decline in sales caused

by changes in the social or economic environment or other such external factors. (Ongoing)

2. **Managerial Improvement Loans for micro businesses [Fiscal investment and loan program]**
In order to provide financial support to micro businesses, JFC will provide unsecured and unguaranteed low-interest loans to micro businesses that receive management guidance from societies and chambers of commerce and industry and prefectural federations of societies of commerce and industry. (Ongoing) (Cited earlier)

3. **Micro business management development support loans**
[Fiscal investment and loan program]
To support sustainable business development by micro businesses, JFC will offer low-interest loans to micro businesses that receive management guidance from societies and chambers of commerce and industry certified under a management development support plan. (Ongoing) (Cited earlier)

4. **Promotion of subordinated lending**
[Fiscal investment and loan program]
To enhance the financial underpinnings of SMEs and micro businesses endeavoring to expand into new businesses or improve their management and facilitate their smooth procurement of funds from private financial institutions, JFC will provide cash-flow support to SMEs and micro businesses in the form of "bullet loans" (capital funds) that could be taken to be equity in financial inspections.

5. **SME and micro business management enhancement loan/guarantee program**
[Fiscal investment and loan program]
JFC will provide the necessary loans for strengthening the management and fund procurement capacity of SMEs aiming to achieve management innovation or cultivate new markets in cooperation with SMEs in other sectors based on guidance and advice from approved management innovation support agencies. (Ongoing)

6. **Encouragement of refinancing guarantees**
To help SMEs and micro businesses relieve repayment burdens by consolidating multiple outstanding debts, credit guarantee corporations will continue to provide refinancing guarantees in fiscal 2018. The refinancing guarantee program that allows changes and improvements in loan conditions will also continue to be provided to support SMEs and micro businesses facing difficulty in receiving forward-looking loan support through a relaxation of repayment conditions even though their managers have the motivation to improve business. (Ongoing)

7. **Safety-net Guarantees**
Credit guarantee corporations will provide guarantees separate from ordinary guarantees to SMEs and micro businesses experiencing a management instability due to a bankruptcy of their business partner, a natural disaster, or the streamlining of operations by their main financial institution (100% guaranteed for up to ¥80 million for unsecured loans, and up to ¥280 million for other loans). (Ongoing)

8. **Review of the credit insurance system**
In June 2017, the Law for Partial Amendment of the SME Credit Insurance Act for Promotion of SME Management Improvement and Development was enacted, and a revised credit insurance system will begin on April 1, 2018. Under the review, support for business founders and micro business owners will be expanded, a designated management succession-related insurance will be created for individual managers who succeed a business, a danger-related insurance will be created that can be promptly applied in the wake of a large-scale economic crisis by specifying an application period, and schemes will be established to further promote management reforms and productivity improvement by SMEs and micro businesses. (New)

9. **Program to assist with formulating management reform plans by approved support agencies**
To promote management reform by SMEs and micro businesses that have a financial problem such as regarding the repayment burden of loans and require full-fledged management improvement that includes financial support and also by SMEs and micro businesses that particularly require prompt measures to improve their cash-flow and profitability management, the program will subsidize part (two-thirds) of the costs needed by approved support agencies (certified public tax accountants, CPAs, financial institutions, etc.) to provide SMEs and micro businesses assistance in formulating management reform plans and follow-up of those plans, under the Act on Strengthening the Management of SMEs, etc. (Ongoing) (Cited earlier)

10. **SME Revitalization Support Councils**
[Fiscal 2018 budget: Included in ¥6.88 billion]
The SME Revitalization Support Councils established at the chambers of commerce and industry and similar entities in each prefecture will provide SMEs and micro businesses whose businesses were profitable but faced financial problems such as excess of debts, with advice on solving their problems through consultation services, and will assist with the drafting of revitalization plans that also include coordination with relevant financial institutions and similar entities. (Ongoing)

11. SME revitalization funds
To deliver management support and the funds needed by SMEs engaging in revitalization initiatives, SMRJ, regional financial institutions, and credit guarantee corporations in unison will promote the establishment and utilization of regional funds that support the revitalization of SMEs within the region and national funds that provide wide-area support. (Ongoing)

12. Promotion of the use of "Guidelines for Personal Guarantees Provided by Business Owners" [Fiscal 2018 budget: ¥100 million]
To promote the further dissemination and utilization of the "Guidelines for Personal Guarantees Provided by Business Owners" published on 5 December 2013, help desks will be operated in the regional headquarters of SMRJ, specialist advisors will be dispatched to businesses that wish to use the guidelines, examples of favorable initiatives that should be widely implemented will be collected and disclosed, and relevant ministries and agencies will work closer together to disseminate the guidelines. (Ongoing)

13. Enhanced management support for financial administration among SMEs
Based on the financial monitoring policy, financial institutions will be encouraged to provide support that leads to enhancing the value of regional enterprises, such as by properly assessing the management issues of regional enterprises, providing the necessary advice for the formulation and execution of measures for solving those issues and offering appropriate financing in accordance with the use of the funds. (Ongoing)

14. Financial support for SMEs in Okinawa
[Fiscal investment and loan program]
Regarding support for SMEs in Okinawa delivered via the Okinawa Development Finance Corporation (ODFC), the operations and initiatives undertaken by JFC will be performed as usual, and ODFC's own system of lending will be expanded to meet the specific needs of businesses in Okinawa. (Ongoing)

Section 6 Support for new business startups

1. Subsidy for regional creative startups
[Fiscal 2018 budget: Included in ¥630 million]
A subsidy will be provided to cover the startup costs of business founders who provide new products and services that create new demand in the region. From fiscal 2017, it will focus on supporting businesses that employ one or more employees during the business implementation period, has plans to utilize outside funds from private financial institutions, and can expect continuous third-party support to stabilize their business. (New)

2. Subsidy for startup support businesses
[Fiscal 2018 budget: Included in ¥630 million]
Support will be provided to startup support businesses that engage in business to support startups of designated businesses under the Industrial Competitiveness Enhancement Act, where they provide startup support services based on an approved business startup support plan (also in response to startup needs stemming from dual occupations and side businesses) or undertake initiatives to enhance the quality of their startup support services. (New)

3. New Startup Loan Program
[Fiscal investment and loan program]
Under this program, JFC will provide unsecured, unguaranteed loans to persons embarking on new ventures and persons who have just started up in business. (Ongoing)

4. Loan Program for Supporting Female, Young, and Senior Entrepreneurs
[Fiscal investment and loan program]
JFC will apply preferential interest rates to loans offered to women, young people under the age of 35 and older people aged 55 or older, who have started a business within the past seven years or so, to support the creation of new businesses by diverse entrepreneurs. (Ongoing)

5. Funding for supporting renewed startups (lending-support schemes for renewed startups)
[Fiscal investment and loan program]
By assessing entrepreneurs with failed businesses to determine factors such as their qualifications as managers and their business prospects, JFC will offer loans to candidates who face difficult circumstances in relaunching their businesses. (Ongoing)

6. Guarantees for founders
To boost lending to startup entrepreneurs by private financial institutions, a guarantee program will be implemented, which specifically encourages credit guarantee corporations to provide guarantees to individuals who are starting up in business or who started up in business less than five years ago. Based on a review of the credit insurance system, the limit of business startup guarantees will be increased from ¥12.5 million to ¥20 million from April 2018. (Ongoing)

7. Program for strengthening cooperation in the global venture ecosystem
[Fiscal 2018 budget: ¥310 million]
Startup communities in Japan will be revitalized by promoting business collaborations and network

creations through the activities of the Venture Business Creation Council, composed mainly of entrepreneurs who are the bearers of new business creation, venture enterprises, large enterprises, and venture support personnel (VCs, etc.). Additionally, the creation of networks with Silicon Valley will be promoted under the Project for Bridging Silicon Valley and Japan, by sending entrepreneurs and personnel from medium enterprises and SMEs to Silicon Valley and holding US-Japan exchange events. (Ongoing)

8. **Program for discovery of potential entrepreneurs [Fiscal 2018 budget: Included in ¥1.1 billion]**
Under this program, business startup schools that offer a certain level of curriculum specified by the government will be granted official recognition, and support will be provided for the acquisition of basic entrepreneur knowledge by business founders. Additionally, a nationwide business plan contest will be held from the perspective of discovering potential entrepreneurs and increasing the number of entrepreneurs throughout the regions in Japan in the future. (New)

9. **Angel tax system [Taxation scheme]**
To promote the financing of newly founded venture enterprises by individual investors ("angels"), measures will continue to be taken to increase recognition of this taxation scheme and develop an environment that is conducive to promoting business startups. (Ongoing)

10. **Taxation measures to promote venture investment in enterprises [Taxation scheme]**
This initiative allows companies that invest in a venture enterprise through a venture fund certified by the Minister for Economy, Trade and Industry under the Industrial Competitiveness Enhancement Act (restricted to cases in which more than 50% of the amount invested is invested in a venture enterprises located in the regions) to accumulate provisional funding for losses of up to 50% of the amount invested and write off that fund as expenses (under the fiscal 2018 tax reform, the term of application will be extended by one year on the premise that the Act on Strengthening Industrial Competitiveness will be amended). Measures for widespread dissemination will continue to be taken, so that the system is utilized effectively, and many attractive venture enterprises emerge in Japan. (Ongoing)

11. **Construction of startup support system in the regions**
To promote business startups in the regions, entrepreneurs receiving startup support based on a startup support business plan that has been created in cooperation between a municipality and private startup support business under the Industrial Competitiveness Enhancement Act and approved by the central government were supported in the form of expanded credit guarantees and taxation measures (reduction of registration and license tax by one-half). Startup support businesses were also supported in the form of credit guarantees. (Ongoing)

12. **Local 10,000 Projects (Subsidies for business generating regional economic activity)**
[Fiscal 2018 budget: Included in ¥1.45 billion]
To support the startup of region-based enterprises with large employment absorption capacity by making use of regional assets and funding (drawn from regional financial institutions, etc.) through the collaboration of industry, academia, financial institutions and government, subsidies will be granted to cover part of the cost of subsidies provided by local public organizations for expenditure required by private sector businesses at the business establishment phase. From fiscal 2018, the scope of support will be strengthened, such as by including businesses that receive financing from a fund for regional revitalization or other such subsidy under the scope of the project on a trial basis and expanding special tax allocation measures. (Ongoing)

13. **Construction of support networks among female entrepreneurs**
[Fiscal 2018 budget: Included in ¥210 million]
To support business startups by women, female entrepreneur support networks that have been created in ten nationwide locations as of fiscal 2016, composed mainly of local financial institutions, industrial support organizations, and startup support organizations, will identify and assess startup needs, present role models of female entrepreneurs and refer businesses to financial institutions. Concentrated support will be provided particularly to female entrepreneurs in the pre-startup phase, and network connections will be strengthened to produce best practices in female entrepreneur support. (Ongoing)

14. **Lifelong startup support subsidy**
[Fiscal 2018 budget: ¥80 million]
To create employment opportunities for middle-aged and older people and promote the realization of a society where people can remain active throughout their lives, a subsidy will be provided to middle-aged and older entrepreneurs to cover part of the expenses required to start a business, including the costs of recruiting and employing workers and providing education and training. Furthermore, an additional subsidy will be provided to businesses that increase productivity after a certain amount of time after startup. (Ongoing)

15. **SME and micro business management enhancement loan/guarantee program**
[Fiscal investment and loan program]
JFC will provide loans for funds needed to strengthen the management and fund procurement capabilities of SMEs that engage in business innovation or the cultivation of new fields in cooperation with SMEs in other sectors based on the guidance and advice of a certified business innovation support organization. (Ongoing) (Cited earlier)

Section 7 Measures for business stabilization, strengthening disaster response

1. **Mutual Relief System for the Prevention of Bankruptcies of SMEs (Mutual Safety-net Relief System)**
The Mutual Relief System for the Prevention of Bankruptcies, which provides loans to prevent a chain reaction of bankruptcies accompanying the bankruptcy of a supplier or customer, will continue to be promoted among SMEs and will continue to provide steady loans. (Ongoing)

2. **Special Business Stability Consultation Centers**
[Fiscal 2018 budget: Included in ¥4.94 billion]
To facilitate management consultations at special business stability advice centers that have been established in key chambers of commerce and industry and prefectural federations of societies of commerce and industry across the country, support will continue to be provided to initiatives such as guidance programs run by the Japan Chamber of Commerce and Industry and the Central Federation of Societies of Commerce and Industry. (Ongoing)

3. **Promotion of wider adoption of BCPs by SMEs**
[Fiscal investment and loan program]
To strengthen the capacities of SMEs and micro businesses to continue business in the event of an emergency, support will be provided for initiatives related to the formulation of BCPs (business continuity plans) and initiatives for ensuring proper action in ordinary times and business continuation in times of emergency (review of supply chains and operational frameworks, formulation of fund procurement plans, identification of priority products, etc.).
Additionally, loans will continue to be provided by JFC for the establishment of disaster prevention facilities in accordance with BCPs formulated by SMEs and micro businesses themselves. (Ongoing)

4. **Relief for damage caused by dumped imports**
[Fiscal 2018 budget: ¥100 million]
Trade remedy measures include anti-dumping (AD) programs to provide relief to domestic industries impacted by dumped imports to Japan from foreign enterprises, including measures to ensure equitable market competition such as by imposing extra customs duties base on a petition by the affected Japanese industry and an investigation by the government. In response to requests from Japan's industries, continued efforts will be made in fiscal 2018 to pursue AD investigations fairly and appropriately based on international rules and Japanese laws and regulations. Furthermore, information sessions will be held for enterprises, and studies will be conducted to ensure that investigations are consistent with WTO conventions. (Ongoing)

Section 8 Enhancing financial capacity

1. **Lowering of corporate tax rates**
[Taxation scheme]
A measure will be taken to lower the rate of corporate tax (19%) incurred on annual income amounts up to ¥8 million to 15%. (Ongoing)

2. **SME investment promotion tax system**
[Taxation scheme]
Under this system, a 30% special depreciation or a 7% tax credit (the tax credit is not offered to corporate entities with a capital of more than ¥30 million) is offered for the cost of acquiring machinery or equipment. (Ongoing)

3. **Special scheme for inclusion of petty sum depreciable assets in expenses**
Under this scheme, the entire cost of acquiring depreciable assets worth less than ¥300,000 in acquisition cost is allowed to be included in expenses, up to a total of ¥3 million a year (with the exception of enterprises with more than 1,000 employees). Under the fiscal 2018 tax reform, the scheme will be extended by two years. (Ongoing)

4. **Carryover and refund carryback of loss**
The carryover of loss is a scheme that allows loss arising in the current business year to be deducted as a loss carried over from the amount of income in the following and subsequent business years (carryover period: 9 years (10 years from fiscal 2018)). The one-year carryback refund allows losses arising in the current business year to be carried back a year, and a return on corporate tax to be filed. Under the fiscal 2018 tax reform, the one-year carryback refund will be extended by two years. (Ongoing)

5. **Taxation system for the revitalization of the commercial, service and agriculture/forestry/fishery industries [Taxation scheme]**
This tax measure allows SMEs in the commercial and service industries that acquire facilities based on

advice on business improvement from a chamber of commerce and industry or other such institution to receive a 30% special depreciation deduction from the cost of acquisition or a 7% tax credit (the tax credit is offered only to corporate entities with a capital of no more than ¥30 million). (Ongoing)

6. **Special exemption from inclusion in charges against revenue of entertainment and social expenses, etc.**
This measure allows the selective application of (1) the measure that permits entertainment and social expenses to be included in charges against revenue up to the fixed deduction amount (¥8 million) or (2) the measure that allows 50% of food and drink expenses to be included in charges against revenue was offered. Under the fiscal 2018 tax reform, this measure will be extended by two years. (Ongoing)

7. **Investment by Small and Medium Business Investment and Consultation Co., Ltd.**
In order to help enhance SMEs' capital adequacy and contribute to their sound growth and development, the Small and Medium Business Investment and Consultation Co., Ltd. will operate a number of programs to assist in SME development. These include business consultations, assistance with business successions and investment programs involving the underwriting of shares, share warrants and corporate bonds with subscription warrants. (Ongoing)

Section 9 Promotion of human rights awareness

1. **Human rights awareness**
[Fiscal 2018 budget: ¥190 million]
For promotion of sound economic activities, seminars and other awareness-raising activities will be implemented, intended for corporate entities. Traveling consultation services and training programs will also be offered to revitalize micro businesses in regions or industries where there are particularly large numbers of micro businesses that require concentrated support. (Ongoing)

Section 10 Strengthening management support frameworks

1. **Programs promoting measures to support cooperative SME organizations**
[Fiscal 2018 budget: ¥660 million]
Where partnerships or other associations work on management innovation and/or reforms through the National Federation of Small Business Associations, which is a dedicated agency assisting cooperative SME organizations, support will be provided that includes partial subsidies for the costs of implementing those innovations or reforms, along with training for instructors. Support will also be provided for optimizing the activities of associations (supervision organizations) that engage in the training of foreign intern trainees. (Ongoing)

2. **One-stop comprehensive support programs for SMEs and micro businesses**
[Fiscal 2018 budget: ¥5.02 billion]
"Yorozu support centers" will be set up in each prefecture as one-stop consultation centers for SMEs and micro businesses facing various management issues, to provide professional detailed advice, and specialist advisors will be dispatched to deal with particularly advanced and specific management issues. (Ongoing)

3. **Local benchmarks**
Initiatives that aim to enhance management or increase productivity will continue to be promoted, through business assessments of enterprises utilizing local benchmarks. For example, local benchmarks will be incorporated into relevant measures for promoting a productivity revolution in SMEs and micro businesses, and a system for extraction of productivity improvement issues and follow-up of results will be established. (Ongoing)

Chapter 5 Rehabilitation and reconstruction from disasters

Section 1 Cash-flow assistance

1. **Cash-flow assistance for disaster-affected SMEs (finance policy)**
[Fiscal 2018 budget: Included in ¥12 billion]
To assist SMEs and micro businesses affected by the Great East Japan Earthquake and Kumamoto Earthquake with their cash-flow issues, Japan Finance Corporation (JFC) (SME Unit and Micro Business and Individual Unit) and Shoko Chukin Bank will continue to provide the Great East Japan Earthquake Recovery Special Loan Program and the 2016 Kumamoto Earthquake Special Loan Program. For SMEs and micro businesses with business establishments located in restricted areas or similar zones when they were imposed following the nuclear accident in Fukushima triggered by the Great East Japan Earthquake and SMEs and micro businesses with business establishments and other assets that were completely destroyed or swept away by the earthquake or tsunami, measures for effectively eliminating the burden of interest payments on loans through prefectural level foundations and similar institutions will continue to be implemented. (Ongoing)

2. **Cash-flow assistance for disaster-affected SMEs (credit guarantee)**
To assist SMEs and micro businesses affected by the Great East Japan Earthquake, the "Great East Japan Earthquake emergency reconstruction guarantee" will continue to be implemented in fiscal 2018 in specific disaster affected areas as a new guarantee system separate from existing ordinary guarantees, disaster-related guarantees and safety net guarantees (100% guaranteed for up to ¥80 million for unsecured loans, and up to ¥280 million for other loans).
As of the present (end of December 2017), Safety-net Guarantee No. 4 is being applied to areas affected by the Kumamoto Earthquake and the heavy rain disaster in northern Kyushu. These guarantees will continue to be applied in fiscal 2018 as necessary, upon an assessment of the damage situation. (Ongoing)

3. **Loan ceilings and lowering of interest rates on Managerial Improvement Loans (Marukei loans) and Managerial Improvement Loans for Environmental Health Business Loans (Eikei loans)**
[Fiscal investment and loan program]
The loan ceilings for unsecured, unguaranteed and low-interest Marukei and Eikei loans provided by JFC to micro businesses affected directly or indirectly by the Great East Japan Earthquake or the 2016 Kumamoto Earthquake will be raised and interest rates will be lowered on a continuous basis. (Ongoing)

4. **"Special Finance for Small and Medium Enterprises in the Specified Area" affected by the nuclear disaster**
In order to assist SMEs and other businesses that have offices in regions affected by the nuclear power plant accident, long-term, interest-free, unsecured loans will be offered to provide business funds (working capital and capital expenditure) required to continue or resume business in Fukushima prefecture. (Ongoing)

Section 2 Countermeasures for the overlapping debt problem

1. **Business revival assistance from Industrial Recovery Consultation Centers and Industry Reconstruction Corporations**
[Fiscal 2018 budget: ¥1.22 billion*]
Support will continue to be provided for the revival of SMEs damaged by the Great East Japan Earthquake through Industrial Recovery Consultation Centers that have been established to provide comprehensive consultation in fiscal 2011 by expanding on the framework of SME Revitalization Support Councils in each affected prefecture and Industry Reconstruction Corporations that have been established to purchase accounts receivable, etc. *Special account for reconstruction from the Great East Japan Earthquake. Of the six affected prefectures, the expenses of the SME Revitalization Support Councils and Industrial Recovery Consultation Centers in Aomori, Ibaraki and Chiba will be transferred to the general account from the fiscal 2017 budget. (Ongoing)

2. **Business revival assistance from the Incorporated Organization for Supporting the Turnaround of Businesses Damaged by the Great East Japan Earthquake [Fiscal 2018 budget: ¥10 billion]**
To cope with the overlapping debt problems of earthquake-affected businesses, the Incorporated Organization for Supporting the Turnaround of Businesses Damaged by the Great East Japan Earthquake will provide assistance such as helping to relieve the repayment burdens for existing debts. (Ongoing)

3. **Reduction of interest burden during assessment of the potential for business regeneration**
This program supports the early business revival of SMEs, etc. that suffer damage in the Great East Japan Earthquake or the nuclear power plant accident

in Fukushima, by defraying the cost of interest that such businesses incur during the period they receive assistance from an Industrial Recovery Consultation Center to formulate a regeneration plan. (Ongoing)

4. **Lease subsidy program to support SMEs in disaster-affected areas**
In order to reduce the burden of overlapping debt borne by disaster-affected SMEs, SMEs burdened with lease obligations due to leased equipment that was lost during the Great East Japan Earthquake will be provided with subsidies equivalent to 10% of the cost of the new leases to re-install the equipment. (Ongoing)

Section 3 Support for restoration of plants, etc.

1. **Post-disaster recovery project on joint facilities of small and medium business associations, etc. (The Great East Japan Earthquake)**
[Fiscal 2018 budget: ¥14.96 billion]
In order to promote the restoration and reconstruction of areas affected by the Great East Japan Earthquake, the following subsidies will be provided in support of the recovery of facilities held by groups of disaster-affected SMEs and others.
(1) Subsidization by the national government (one half) and prefectural governments (one quarter) of the cost of restoration work on facilities and equipment required for implementation of restoration work planned by groups of SMEs and approved by the prefecture as making an important contribution to the regional economy and maintaining employment
(2) Subsidization by the national government (one half) of the cost of disaster recovery projects such as for Societies of Commerce and Industry and other such instruction and consultation facilities for SMEs (Ongoing)

2. **Loans for restoration and development of facilities and equipment (The Great East Japan Earthquake)**
SMRJ and prefectures will cooperate in supporting SMEs that suffered damage in the Great East Japan Earthquake by providing loans for the repair and development of facilities and equipment that they need to implement restoration plans approved by the prefecture. (Ongoing)

3. **Projects for development of temporary facilities and subsidies for effective utilization of temporary facilities**
[Fiscal 2018 budget: Included in ¥600 million]
Temporary facilities will continue to be developed, where such facilities are needed such as to resume business in regions that have not yet achieved full-scale reconstruction. Additionally, to promote the effective utilization of temporary facilities, subsidies will be provided to disaster-affected municipalities to cover the costs for the construction, relocation and removal of temporary facilities. (Ongoing)

4. **Program to create employment that promotes business recovery**
To address the employment mismatch caused by a serious shortage of workers in disaster-affected areas, support will be provided in the area of employment in accord with industrial policies. (Ongoing)

Section 4 Other measures

1. **Establishment of special help desks**
Special help desks that are set up at offices of JFC, Shoko Chukin Bank, credit guarantee corporations, chambers of commerce and industry, federations of societies of commerce and industry, federations of small business associations, regional head offices of SMRJ, and bureaus of economy, trade and industry nationwide will provide detailed business and financial advice to SMEs and other enterprises affected by the Great East Japan Earthquake. (Ongoing)

2. **Navigation dial for SME phone consultations**
To help SMEs that do not know where to go for advice, a "Navi Dial for SME phone consultations" help line will connect callers to their nearest Bureau of Economy, Trade, and Industry by dialing a single telephone number. (Ongoing)

3. **Consideration for SMEs in disaster-affected regions by the government and other public agencies**
The matter of giving consideration to SMEs and micro businesses in areas affected by the Great East Japan Earthquake and the 2016 Kumamoto Earthquake with regard to orders from the public sector will be included in the "Basic Policy on State Contracts with Small and Medium Enterprises" and widely disseminated.

4. **Subsidy for development of employment for designated job seekers (course for employment and development of disaster-affected workers)**
[Fiscal 2018 budget: ¥100 million]
Subsidies will be provided to employers who hire workers who lost their jobs due to the Great East Japan Earthquake and job seekers living in affected areas as a result of referrals from "Hello Work" employment offices and similar agencies, provided that such workers are expected to be employed continuously for a period of at least one year. Bonus subsidies will be additionally provided to employers hiring 10 or more such workers. (Ongoing)

5. **Guidance and advice on measuring radiation levels [Fiscal 2018 budget: ¥30 million]**
A review of the evacuation order in areas designated as evacuation zones after the Great East Japan Earthquake is hereafter expected to be accompanied by the recommencement of business by enterprises that were affected by the disaster and promote the siting of enterprises in the affected areas. Thus, in response to requests from enterprises in Fukushima prefecture, teams of experts will be dispatched and guidance and advice on radiation measurements of industrial products will be provided to enterprises in the prefecture as a countermeasure against harmful rumors about Fukushima's industrial products. (Ongoing)

6. **Program for employment support in response to the nuclear disaster**
[Fiscal 2018 budget: ¥1.55 billion]
A program will be implemented to provide temporary places of employment to people in Fukushima Prefecture who have been affected by the nuclear disaster, to help them stabilize their living situation. (Ongoing)

7. **Measures for securing human resources in disaster-affected regions**
[Fiscal 2018 budget: ¥970 million]
Measures will be implemented that aim to attract wide-ranging human resources, including young workers and specialists, to disaster-affected regions, and to increase the numbers of regular visitors (visitor population) to disaster-affected enterprises to help solve their issues. Measures will also be implemented to provide enterprises with the knowhow increasing their capacity to gain human resources, and efforts will be made to laterally apply best practices in acquiring human resources. (Ongoing)

8. **Program for promoting regional reconstruction and practical development under the Fukushima Innovation Coast Scheme**
[Fiscal 2018 budget: ¥6.97 billion]
Support will be provided for the cost of practical development of robot technology and other innovative technologies in the priority areas(*) of the Fukushima Innovation Coast Scheme, which contribute to regional promotion through cooperation with local enterprises. (Ongoing)
*Priority areas include the decommissioning of reactors, robots, energy, environment and recycling, agriculture, forestry and fisheries, and medical equipment, among others.

9. **Support program for business recovery, etc. by SMEs and micro businesses**
[Fiscal 2018 budget: ¥11.2 billion]
To provide concentrated support to SMEs in the 12 municipalities that were affected by the nuclear disaster in Fukushima Prefecture and thereby create jobs in the region and promote the early recovery of city functions such as by restoring places for shopping, a subsidy will be provided to cover part of the capital investment needed to resume business. From fiscal 2017, the scope of the support will be expanded to enterprises in "difficult-to-return zones" that cannot resume business in the original community. (Ongoing)

10. **Support program for new businesses in regions affected by the nuclear disaster**
[Fiscal 2018 budget: ¥210 million]
A subsidy will be provided for capital investment needed to start a new business in the 12 municipalities affected by the nuclear disaster in Fukushima Prefecture or transfer a business from outside the 12 municipalities, and initiatives will be taken to develop an environment conducive to revitalizing investment, to help the 12 municipalities recover their city functions so that affected enterprises can get back on their feet. (Ongoing)

11. **Support for securing travel and transportation means needed to receive lifestyle-related services [Fiscal 2018 budget: ¥210 million]**
In the 12 municipalities affected by the nuclear disaster in Fukushima Prefecture, support will be provided in the form of travel and transportation means so that local stores could make joint deliveries, local residents can receive medical services, etc. (Ongoing)

12. **Support for securing personnel through a personnel match-up program**
[Fiscal 2018 budget: ¥500 million]
Human resources coordinators will make a detailed assessment of the personnel needs of businesses in the 12 municipalities affected by the nuclear disaster in Fukushima Prefecture, and widely share these needs with job seekers so that personnel could be acquired from both inside and outside the 12 municipalities through a match-up program. (Ongoing)

13. **B2B match-up program for sixth sector industrialization**
[Fiscal 2018 budget: ¥370 million]
A B2B match-up service will be provided, to help businesses cultivate new markets and promote the creation of new businesses. In addition to matching businesses with other businesses, an expert will also provide guidance regarding the smooth implementation of business after the match-up. (Ongoing)

14. **Support program by specialists of the Fukushima Soso Reconstruction Public-Private Partnership Team [Fiscal 2018 budget: ¥8.2 billion]**

The framework for providing support through individual visits and consultations via a public-private partnership team will be strengthened. A team composed of counselors, consultants, SME management consultants, and other such experts will provide fine-tuned consultation support on issues related to business recommencement, business succession, job change, lifestyle reconstruction, etc. From fiscal 2017, the scope of the support will be expanded to include municipalities. (Ongoing)

15. **Support program for introducing regional traditions, attractions, etc.**
[Fiscal 2018 budget: ¥230 million]
The program will aim to dispel harmful rumors and to achieve a stable business foundation by increasing the non-resident population mainly in the 12 municipalities affected by the nuclear disaster in Fukushima Prefecture, by supporting private organizations in their efforts to introduce the traditions and attractions of the prefecture and selecting effective means of information dissemination, creating contents that are suited to the means of information dissemination, and measuring the effect of these initiatives after disseminating various information. (Ongoing)

Chapter 6 Initiatives by industries and area

Section 1 Measures for SMEs in agriculture, forestry and fisheries

1. Promotion of diversification of primary producers into processing and distribution (sixth sector industrialization)

(1) Subsidy for sixth sector industrialization in the food industry [Fiscal 2018 budget: ¥1.68 billion]
Support will be provided for sixth industrialization initiatives that are implemented by a network of agriculture, forestry and fishery businesses and diverse other businesses. The support will be directed to initiatives that are implemented by the entire region to develop new products and cultivate markets in line with municipal sixth industrialization strategies and for the development of processing and marketing facilities. (New)

(2) Active utilization of the Agriculture, Forestry and Fisheries Fund Corporation for Innovation, Value-chain and Expansion Japan
Support will be provided through measures such as investment for business activities aimed at sixth sector industrialization by agriculture, forestry and fishery businesses in cooperation with distribution and processing businesses through the Agriculture, Forestry and Fisheries Fund Corporation for Innovation, Value-chain and Expansion Japan (A-FIVE). (Ongoing)

2. Support for small and medium agricultural, forestry, and fishery businesses

(1) Wood Industry Upgrading Promotion Fund and Forestry and Wood Industry Improvement Fund [Fiscal 2018 budget: ¥63.8 billion]
In order to streamline lumber production and distribution, loans will be provided through the Wood Industry Upgrading Promotion Fund, and loans through the Wood Industry Improvement Fund will be provided to implement measures such as management reforms in the forestry and lumber industries.

(2) Interest subsidy program for the introduction of lumber processing facilities, within measures for promoting new production, processing and distribution frameworks, within measures for the revitalization of the lumber industry and wooden buildings, within comprehensive measures for growth of the forestry industry [Fiscal 2018 budget: ¥3 million]
To supply high-quality, high-performance wood products stably at low cost, an interest subsidy will be provided for borrowings required for the introduction of facilities by enterprises engaging in lumbering, and for the establishment of a stable supply framework by midstream businesses. (Ongoing)

(3) Measures for strengthening the competitiveness of the lumber industry, within measures for the promotion of the growth of the forestry and lumber industries, within comprehensive measures for growth of the forestry industry (for the development of lumber processing and distribution facilities) [Fiscal 2018 budget: ¥23.47 billion]
Support will be provided for the development of lumber processing and distribution facilities that aim to provide a stable supply of wood products by reducing production, processing and distribution costs through the cooperation of businesses in the upstream and downstream sectors. (New)

(4) Support for reorganization and development of the dairy industry by means of subsidies for building a strong agricultural industry and comprehensive measures for the revitalization of production areas [Fiscal 2018 budget: Included in the ¥20.15 billion Subsidy for Creating Strong Agriculture]
(Objectives of the measure)
- To promote a stronger management culture in the SME dairy industry, such as by restructuring and rationalizing dairy plants and enhancing sanitary control, toward contributing to business stabilization among dairy farmers.

(Overview of the measure)
- To reduce the production and selling costs of SMEs in the dairy industry and promote the advancement of sanitary standards, support will be provided for the additional construction and closing down of dairy plant facilities and for the closing down of dairy plants in cases where it is not accompanied by the construction of new plants.

(5) Funds for promoting the advancement of quality management in food industries
To improve the safety of food products and gain the confidence of consumers, financial support will be provided for the following initiatives under the Act on Temporary Measures concerning Sophistication of Management of Food Manufacturing Process: (1) Provision of infrastructure and equipment for HACCP introduction; and (2) Provision of infrastructure and equipment for hygiene and product quality control as preliminary steps towards HACCP introduction (advanced platform provision). (Ongoing)

(6) Comprehensive export support project [Fiscal 2018 budget: ¥3.44 billion]
(Objectives of the measure)
- Toward achieving the target of ¥1 trillion in exports by 2019, various initiatives will be implemented in line with the “Strategies for

Strengthening the Export Competitiveness of the Agriculture, Forestry and Fishery Industries" (compiled in May 2016 by the Headquarters on Creation of Regional Vitality in Agriculture, Forestry, and Fisheries) through private-public cooperation.

(Overview of the measure)

- Through subsidies to JETRO, comprehensive business support will be provided for upstream to downstream operations of export businesses. (Ongoing)
- Opportunities for direct negotiations between Japanese businesses and overseas buyers will be provided by establishing a Japan Pavilion in overseas trade fairs that are held in countries and regions where export is strongly expected to increase in the future. (Ongoing)
- Major buyers from overseas will be invited to business conventions in Japan to deepen their understanding of the characteristics of Japanese product categories and their safety through onsite inspections of wholesale markets and production regions, to promote effective business talks. (Ongoing)
- Strategic promotion campaigns will be implemented for cultivation and expansion of new overseas markets by the Japan Food Overseas Promotion Center (JFOODO).
- Support will be provided to export organizations for each export category including rice and rice products, fruits, flowers, tea, animal products, forestry products (wood), marine products and snack foods, who engage in all-Japan PR activities and new market cultivation initiatives based on policies for each respective product category. (Ongoing)
- In sectors that anticipate a specific expansion in exports, support will be provided for the implementation of promotional campaigns that cut cross multiple product categories and for the promotion of product categories that is difficult to undertake by all-Japan organizations. (Ongoing)
- Support will be provided to regional blocks in which businesses that handle diverse products cooperate with multiple production regions in Japan to cultivate new markets. (Ongoing)
  (Changes from fiscal 2017)
- Accompanying the establishment of the Japan Food Overseas Promotion Center (JFOODO), promotional campaigns will be implemented in countries/regions and for product categories that JFOODO identifies as strategic areas. (Ongoing)

(7) Program for promoting the development of export environments (incl. support for resolving issues related to export environments) [Fiscal 2018 budget: ¥460 million]

(Objectives of the measure)

- Toward achieving the target of ¥5 trillion in exports by 2019, various initiatives will be implemented in line with the "Strategies for Strengthening the Export Competitiveness of the Agriculture, Forestry and Fishery Industries" (compiled in May 2016 by the Headquarters on Creation of Regional Vitality in Agriculture, Forestry, and Fisheries) through private-public cooperation.

(Overview of the measure)

With respect to priority product categories specified in the Strategies for Strengthening the Export Competitiveness of the Agriculture, Forestry and Fishery Industries," support will be provided for initiatives to acquire/renew internationally recognized certifications (ISO22000 etc.), respond to quarantine requirements of export destination countries/regions (inspection of registered farms, halal certification, etc.), or to acquire/renew standard certifications that aim to differentiate products made in Japan from those made in other countries in export destination countries/regions (organic JAS certification, etc.). (Ongoing)

(8) Comprehensive program for utilization of the geographical indication protection system [Fiscal 2018 budget: ¥170 million]

Initiatives will be implemented to establish support centers for registration and application of geographical indications (GI), provide a subsidy for carrying out examinations required for application, raise awareness of the GI protection system by holding symposiums and trade fairs on GI, disseminate information on GI products in Japan and abroad, and strengthen measures against infringements of Japan's intellectual properties overseas. (Ongoing)

3. Support for R&D and other cross-field activities

(1) Program for promotion innovation in venues for the accumulation and utilization of knowledge [Fiscal 2018 budget: ¥4.39 billion]

To create innovation in the agriculture, forestry, fishery and food industries, proposal candidate studies that focuses on promoting research and development based on diverse knowledge and technologies of various sectors, will be implemented. (New)

(2) Various forms of lending by JFC

Loans will be provided for (1) the improvement of the management of designated agricultural processing businesses, (2) the promotion of new applications of designated agricultural, forestry and livestock products or the adoption of new raw material species for processing, (3) the establishment of stable transaction relationships between food manufacturers and agriculture, forestry and fishery businesses and the development of agricultural, forestry and fishery

facilities, (4) the strengthening of the corporate structure of seafood manufacturers, and (5) the restructuring of businesses related to agricultural production. (Ongoing)

Section 2 Measures for SMEs in the transport industry

1. Support, etc. for the warehousing industry

To save labor and increase efficiency of physical distribution services pursuant to the Law for Integration and Improvement of Physical Distribution, the development of warehouses that serve both transport and storage functions will be promoted. Additionally, to promote low-carbon warehouses, ongoing support will be provided for the introduction of energy-saving facilities that use natural refrigerants. (Ongoing)

2. Measures for coastal shipping and domestic passenger ships (joint vessel construction system) [Fiscal investment and loan program]

Under the joint vessel construction system of the Japan Railway Construction, Transport and Technology Agency (JRTT), support was provided for the construction of ships having high political significance, such as ships that contribute to the greenification of coastal shipping or to maintaining and revitalizing remote island routes. (Ongoing)

3. Measures for small and medium shipbuilders and related manufacturers [Fiscal 2018 budget: (1) Included in ¥70 million; (2) ¥16 billion (fiscal 2013 budget); (3) ¥450 million; (4) ¥80 million]

(1) In addition to taking steps to develop a safety net for business stabilization, (1) courses aimed at modernizing management techniques were held, and a health and safety manager training course will also be held to help prevent industrial accidents. (Ongoing)

(2) Most of the shipyards and shipbuilders on the Pacific coast of Tohoku suffered devastating damage in the Great East Japan Earthquake. The Ministry of Land, Infrastructure and Transport, in cooperation with the SME Agency and other relevant ministries and agencies, have supported the utilization of various support programs to promote the prompt recovery and reconstruction of local shipbuilding industries that support the fishery industry that is a core industry in the region. For shipbuilding businesses that face difficulties in resuming operations at the same level as before the earthquake due to ground subsidence, the Subsidy for Projects that Support the Reconstruction of Shipbuilding Businesses, etc. was established in fiscal 2013 to support the development of shipbuilding facilities toward the full-scale reconstruction of the shipbuilding industry through business cooperation and integration. A total of 19 businesses in 8 projects were selected to receive a subsidy (¥11.42 billion in total), as of the end of fiscal 2014. Seven of those subsidized businesses have been completed by the end of fiscal 2017, and the remaining one business will also be properly implemented. (2) Subsidy for reconstruction assistance projects in the shipbuilding industry (Ongoing)

(3) Subsidies will be provided for research and development projects for marine resource development technologies that improve productivity in the construction and operation of ships. (3) Subsidy for R&D for technologies related to the maritime industry (Ongoing)

(4) To improve productivity in SME shipbuilding and ship machinery industries, the approval of management improvement plans formulated by SMEs and micro businesses in line with "Guidelines concerning management improvement in relevant fields of the shipbuilding and ship machinery industries will be pushed forward and capital investment will be promoted by offering tax benefits and other support measures based on the Act on Strengthening the Management of SMEs, etc. [Taxation] (Ongoing)

(5) To secure human resources in the shipbuilding sector, the "Guidance for shipbuilding businesses on implementing internships through regional cooperation" will be disseminated with the aim of deepening understanding of the shipbuilding industry among students and teachers and strengthening the network between local shipbuilding enterprises and educational institutions. Additionally, a test program will be implemented as a wrap-up of the program for development of shipbuilding instructors, with the aim of strengthening shipbuilding education in high schools and establishing a sustainable training framework for shipbuilding instructors. Furthermore, the employment of foreign workers will be promoted through the proper operation of the program for accepting foreign shipbuilding workers. (4) Acquisition and development of human resources in the shipbuilding industry (Ongoing)

Section 3 Measures for small and medium building contractors and realtors

1. Promotion of the development of multi-skills in regional construction industries
[Fiscal 2018 budget: ¥60 million]

A model multi-skills development program will be implemented to support the formulation and implementation of multi-skills development and utilization plans by groups of SME and second-tier construction enterprises, with the aim of increasing productivity in SME and second-tier construction enterprises by promoting the development of multi-skills that would expand the breadth of specialized skills among skilled workers in the construction field.

Additionally, the results of the above model program and areas that need improvement will be compiled into a handbook on methods for multi-skills development and widely disseminated among SME and second-tier construction enterprises. (New)

2. Financial support in the construction industry

(1) Implementation of the Local Construction Management Enhancement Loan Program

To further facilitate funds procurement by construction companies acting as the main contractor, the Local Construction Management Enhancement Loan Program will continue to be implemented, to allow SME and second-tier construction enterprises to receive a loan from loan businesses (business cooperatives, etc.) in proportion to the construction work using the contract value credit from public works as collateral. The program aims to secure loan funds and reduce procurement interest rates by attaching a loan guarantee to sublease funds that loan businesses borrow from financial institutions when providing a loan. (Ongoing)

(2) Implementation of the Subcontracting Receivables Protection Support Program

To promote the protection of receivables by building subcontractors, the Subcontracting Receivables Protection Support Program will continue to be implemented whereby a factoring company guarantees the contract price receivable by an SME or second-tier subcontractor from the main building contractor. The program will also compensate for a certain amount of losses by factoring companies and will provide subsidies to cover the guarantee fees borne by subcontractors. (Ongoing)

3. Support for overseas business expansion in the construction industry
[Fiscal 2018 budget: ¥80 million]

To promote the overseas expansion of second-tier and SME construction companies in Japan that possess original technologies, support will be provided for marketing such technologies and for establishing connections with local relevant parties by organizing seminars in Japan, dispatching missions, supporting their participation in overseas trade fairs, and holding joint job fairs with overseas companies. Support will also be provided for enhancing the practical capacity of enterprises by creating practical manuals and e-learning contents. (Ongoing)

4. Financial measures for small and medium realtors

Loan guarantee programs designed to provide guarantees for business loans for regional revitalization and for loans to fund joint initiatives by small and medium realtors will be continued so as to supplement credit and facilitate financing of small and medium realtors. (Ongoing)

5. Regional housing greenification program
[Fiscal 2018 budget: ¥11.5 billion]

To strengthen the regional production framework for wooden housing and reduce environmental burden, support will be provided for the development of energy efficient and durable wooden housing and buildings through groups comprising businesses in related fields involved at all stages from provision of materials through to design and implementation. (Ongoing)

6. Community-based program for developing a framework for wooden housing construction techniques [Fiscal 2018 budget: ¥450 million]

To maintain and develop a framework for wooden housing construction techniques in the regions and create a stock of excellent housing, support will be provided for training activities implemented by groups of private businesses to develop skilled carpenters. (Ongoing)

Section 4 Measures for the environmental sanitation business

1. Measures for the environmental sanitation business [Fiscal 2018 budget: ¥1.14 billion]

Subsidies will be provided to environmental sanitation associations, the national environmental sanitation guidance center, and prefectural environmental sanitation guidance centers, to promote the creation of safe and comfortable lifestyle environments from the perspective of sanitation. Support will be provided specifically for rehabilitating the management of environmental sanitation businesses such as the hairdressing, dry cleaning and restaurant businesses, maintaining and improving sanitation standards, and protecting user and consumer interests. In fiscal 2018, priority will be placed on raising the level of wage payments in environmental sanitation businesses, such as by organizing seminars given by certified social insurance labor consultants and other specialists on improving management power and profitability. (Ongoing)

2. Loans for ES businesses
[Fiscal 2018 budget: ¥3.45 billion]

JFC will provide low-interest loans (environmental sanitation loans) with the aim of improving and otherwise promoting public health, by providing financial assistance to environmental sanitation businesses. In fiscal 2018, working capital was newly included in the scope of disaster loans for ES businesses that were previously limited to loans for equipment funds. (Ongoing)

Chapter 7 Other SME policies

Section 1 Environmental and energy measures

1. **Consignment expenses for implementing the J-Credit scheme in Japan**
[Fiscal 2018 budget: ¥380 million]
The J-Credit Scheme is a system for certifying the amounts of greenhouse gas emission reductions achieved through capital investment by SMEs as "credits" and allowing large enterprises to use those credits to achieve the goals of the plan for realizing a low-carbon society or to offset their CO2 emissions. Under this program, a secretariat for administering the scheme will be operated, and SMEs implementing greenhouse gas emissions reduction activities by using the J-Credit Scheme will be supported in registering projects. The program will also promote carbon offsets and the cultivation of demand for credits created under the J-Credit Scheme. Furthermore, by boosting low-energy investments by SMEs and promoting the circulation of funds in Japan through the use of these credits, the program will aim to achieve a good balance between the environment and economy. (Ongoing)

2. **Environment and Energy Measure Fund (for anti-pollution measures)**
[Fiscal investment and loan program]
To promote anti-pollution measures by SMEs and small enterprises, JFC will continue to provide special loans upon conducting a review of relevant measures and interest rates. (Ongoing)

3. **Anti-pollution tax system [Taxation scheme]**
This anti-pollution tax system will continue to be implemented, to support the pollution prevention initiatives of SMEs and small enterprises. (Ongoing)

4. **Subsidy for supporting the promotion of energy conservation investments (Energy Use Rationalization Business Support Subsidy) [Fiscal 2018 budget: Included in ¥60.04 billion]**
To promote energy conservation investments and improve energy consumption efficiency in plants and offices, support will be provided for the replacement of existing facilities with energy-efficient facilities, by establishing two application categories: application by plants and offices, which places no restriction on the type of facilities, and application by facility, which places a restriction on the type of facilities but requires only a simplified procedure.

5. **Interest subsidy for investment in energy-saving facilities [Fiscal 2018 budget: ¥1.6 billion]**
An interest subsidy on loans will be provided to businesses that receive financing from private financial institutions to improve energy consumption efficiency by introducing energy-saving facilities to a new office or installing/adding energy-saving facilities to an existing office, to reduce the cost of funds procurement. (Ongoing)

6. **Subsidy for SME energy conservation diagnosis programs [Fiscal 2018 budget: ¥1.2 billion]**
To provide detailed support for the energy-saving initiatives of SMEs, etc., their energy-saving potential will be diagnosed free of charge, and regional platforms for energy conservation consultation will be established nationwide as centers that provide consultation on energy conservation in cooperation with regional experts. Additionally, the nationwide energy conservation promotion network will centrally provide information on energy conservation support centers and energy conservation information. (Ongoing)

7. **Program to create a fund to promote regional low-carbon investment**
[Fiscal 2018 budget: ¥4.8 billion]
In order to call in private funding to low-carbon projects such as renewable energy projects that are likely to be profitable but lack sufficient private funding due to risks stemming from long lead times or long investment recovery periods, funding will be provided from the low-carbon investment promotion fund. (Ongoing)

8. **Eco-Lease promotion program**
[Fiscal 2018 budget: ¥1.9 billion]
The widespread adoption of low-carbon devices will be supported by subsidizing part of the total lease payment and promoting the utilization of a no-deposit "lease" scheme among SMEs that have difficulty coping with the very high initial investment costs (deposits) of installing low-carbon devices. (Ongoing)

9. **Eco-Action 21**
Information meetings will be held in five locations throughout Japan and a symposium for environmental managers will be held in one location to raise awareness of Eco-Action 21 Guidelines 2017 and industry-specific guidelines for the industrial waste processing, construction and food industries, with the objective of enhancing the effectiveness of Eco-Action 21 as an effective environmental management system

for second-tier businesses and SMEs and contribute to enhancing corporate value. Additionally, the support program for introduction of an environmental management system dedicated to CO2 reduction will continue to be implemented, to promote greater awareness and approaches to Eco-Action 21 and other environmental management systems, and encourage large enterprises to introduce environmental management to their value chain. (Ongoing)

Section 2 Measures on intellectual property

1. **Surveys of technical trends of patent application**
[Fiscal 2018 budget: Included in ¥830 million]
Market trends and patent application trends will be surveyed by selecting themes related to technical fields that have the potential to create and capture markets, and technical fields that Japan should promote as part of its science and technology policies. The results of the surveys will be made publicly available via such sources as the Japan Patent Office's website, so they may be utilized for the formulation of R&D strategies and IP strategies in Japan's industrial world. (Ongoing)

2. **Subsidy for international patent applications**
[Fiscal 2018 budget: ¥650 million]
In order to encourage SMEs to file strategic applications for international patents, subsidies will be provided to partially defray the costs (such as application fees to overseas patent offices, expenditure on hiring Japanese agents and local agents overseas, and translation costs) incurred by SMEs aspiring to expand their business overseas. In addition to prefectural SME support centers, support will also be provided by JETRO. (Ongoing)

3. **Promotion of the wider use of IP systems**
[Fiscal 2018 budget: (1) Included in INPIT subsidy (2) ¥50 million]
Information sessions will be held for individuals, tailored according to their different levels of knowledge and expertise on the intellectual property system. These include [1] sessions outlining the IP system and explaining basic knowledge for beginners, and [2] sector-specific sessions with more specialized content for people with some experience, looking at topics such as the examination criteria for patents, designs, and trademarks, the application of the trial system and procedures for international applications, and sessions for widely explaining the latest amendments to relevant laws and regulations. In fiscal 2018, information sessions for beginners will be held in 47 prefectures, and information sessions for working-level personnel and sessions on institutional amendments will be held in major cities throughout Japan. (Ongoing)

4. **Program supporting measures by SMEs to counter overseas infringement**
[Fiscal 2018 budget: ¥90 million]
To promote the timely and appropriate exercise of industrial property rights overseas by SMEs, the costs required for the investigation of imitation products through to procedures for issuing warning statements and government seizure against the manufacturer of imitation products will be subsidized through JETRO. Subsidies will also be provided for the cost of consulting with a lawyer or other authority and the cost of a lawsuit in cases where an SME is sued by a local enterprise overseas for an infringement of intellectual property rights, and for costs required for the invalidation or rescission of an usurped trademark. (Ongoing)

5. **Patent strategy portal site**
[Fiscal 2018 budget: Included in ¥10 million]
The patent strategy portal site on the Patent Office's website will provide online access to "data for self-analysis," which includes individual data on the number of patent applications, the number of examination requests, and the patent allowance rate over the preceding 10 years, for applicants who apply for a password. (Ongoing)

6. **Reductions in patent fees for SMEs**
SMEs actively pursuing R&D will continue to be subsidized through the reduction by half of examination request fees and patent charges (for 10 years from the first year). (Ongoing)
To apply the system for reducing patent charges by half for all SMEs, a proposal to amend the Patent Act will be submitted to the Diet. (New)

7. **Accelerated examination and accelerated appeal examination system**
In cases where the applicant or appellant is an SME or micro business, a system for accelerated examination and accelerated appeal examination will be implemented whereby examinations and appeal examinations could be fast tracked by filing an "explanation of situation for accelerated examination" or "explanation of situation for accelerated appeal examination." For patents of venture enterprises, a new system will be established within fiscal 2018 so that venture enterprises could receive the result of a primary screening within a month as a rule by submitting an "explanation of situation for accelerated examination." The system will also be applied to the examination of designs and trademarks that satisfy the requirements for accelerated examination or accelerated appeal examination. (Ongoing)

8. Provision of a one-stop IP service for SMEs (General IP Help Desks)
"General IP Help Desks" have been established in each prefecture, staffed by support staff, in order to provide a one-stop service for on-the-spot resolution of IP concerns and problems encountered by SMEs in the course of business administration. The use of IP by SMEs will be promoted such as by using IP experts to work with SMEs to jointly resolve highly specialist issues, collaborating with SME support agencies and similar organizations, and searching for SMEs that are not yet capable of utilizing IP effectively. In fiscal 2018, the support framework will be strengthened such as by increasing the numbers of support personnel and enhancing both the qualitative and quantitative aspects of support, toward achieving the Action Plan for Revitalization of Intellectual Properties in the Regions (Sept. 26, 2016) and the goals that have been established in consideration of the regional characteristics of each of the 47 prefectures based the action plan. (Ongoing)

9. Development of a one-stop support framework for trade secrets ("Trade secret/IP strategy consultation center—Trade secret hot line—")
The "Trade secret/IP strategy consultation center—Trade secret hot line—" that was newly established in the National Center for Industrial Property Information and Training (INPIT) on February 2, 2015 cooperates with the IP comprehensive support center in responding to consultations mainly from SMEs through IP experts. The consultations deal with specific IP strategies, such as the open/close strategy that involves the rights of patents and confidentiality of trade secrets, as well as methods of managing confidential trade secrets and leaks and outflows of trade secrets. The center will continue to offer these services in fiscal 2018. Particularly with respect to cases of leakage and outflows of trade secrets, information security measures and cyberattacks, the center will work in close cooperation with the National Police Agency and Information Technology Promotion Agency, Japan (IPA), in accordance with the content of the consultation. In fiscal 2018, activities for dissemination and awareness-raising will be promoted via seminars on trade secrets and intellectual properties and e-learning contents. (Ongoing)

10. Emerging Country IP Information Databank
This is an informational website aimed at legal and IP managers in Japanese enterprises doing business in developing countries and similar regions. Its purpose is to provide a wide range of IP information for various developing countries, including information on application procedures, examination and litigation procedures, licensing procedures and statistical and institutional trends. (Ongoing)

11. Dispatch of Global IP Producers
The National Center for Industrial Property Information and Training (INPIT) will dispatch experts in IP management ("Global IP Producers") to assist SMEs and other enterprises with promising technologies that are likely to drive overseas expansion. These Global IP Producers support overseas business expansion by SMEs through the use of intellectual property, by assisting in the formulation of IP strategies tailored to the nature of the overseas operations and factors such as the situations and systems in the target countries. (Ongoing)

12. On-site and TV interviews
To provide support regarding patents and designs to small and medium venture enterprises throughout Japan, onsite interview examinations will be held by inspectors and examiners sent to interview venues throughout Japan, and to provide support regarding patents, designs and trademarks, TV interview examinations were held via the Internet using the applicants' own PCs. An onsite interview examination office and TV interview examination office will be established in the Kinki Headquarters of the National Center for Industrial Property Information and Training (INPIT) (provisional name) that opened in July 2017, and the major dates for onsite interviews will be scheduled. Additionally, a region-based patent promotion program will be implemented, in which an onsite interview examination and seminar on patent rights will be held at the same time, intended for corporate cluster regions, such as research parks and universities, where local SMEs, venture enterprises, and research facilities are concentrated. (Ongoing)

13. Promotion of intellectual property financing [Fiscal 2018 budget: ¥150 million]
A comprehensive initiative that promotes financing by financial institutions based on intellectual properties will be implemented, such as by providing IP business assessment documents that contain easy-to-understand information about businesses that utilize SME patents and other intellectual properties to financial institutions that find it difficult to assess the patents and intellectual properties of SMEs. (Ongoing)

14. Program for promotion of businesses that utilize Japanese intellectual properties [Fiscal 2018 budget: ¥330 million]
The following initiatives will be implemented via JETRO, to support the promotion of overseas business expansion through the use of intellectual properties of medium enterprises, SMEs and regional organizations that have acquired a regional collective trademark. (Ongoing)

(1) Comprehensive support will be provided, from the organization of seminars in Japan and overseas, to the formulation of business plans using local specialists and arranging presentation meetings with business partners.
(2) Business meetings with business partners will be arranged, through participation in overseas trade fairs and business meetings.
(3) Information will be disseminated to companies participating in this program in multiple languages, with consideration to preventing the outflow of technologies.
(4) The necessary surveys for overseas business expansion will be carried out, such as for seeking candidate local partners.

15. Program for strengthening capacities to support the intellectual properties of regional SMEs
[Fiscal 2018 budget: ¥170 million]
To promote the protection and utilization of the intellectual properties of SMEs through detailed support in consideration of the various issues and regional characteristics of SMEs, Bureaus of Economy, Trade and Industry will seek pioneering and advanced initiatives for supporting intellectual properties from highly motivated regional support organizations, provide support for their implementation. (Ongoing)

16. Subsidy for trade insurance against IP lawsuits overseas [Fiscal 2018 budget: ¥60 million]
To allow SMEs to take measures against IP lawsuits overseas, support was provided for the initiatives of an overseas IP lawsuit insurance system, which is operated by a membership of nationwide SMEs, to provide funds to cover for the cost of IP lawsuits overseas. Subsidies will be granted to a nationwide organization of SMEs, to subsidize 1/2 the premium of overseas IP lawsuit insurances (1/3 in cases where the subsidy will continue to be granted in the second year and beyond). By reducing the burden of paying the insurance premium, the program will encourage subscription by SMEs. (Ongoing)

17. Dispatch of business producers for regional revitalization
[Fiscal 2018 budget: Included in ¥120 million]
With the objective of expanding business functions in the regions, three "business producers" will be dispatched to three institutions to support the development of an environment that is conducive to creating businesses, by helping to identify hidden needs that could lead to business, procure business capital by matching the needs with seeds through the creation and utilization of a regional network that includes financial institutions, and cultivate a market. (Ongoing)

18. Provision of patent information
In response to advanced and diversified user needs for patent information, a new service for patent information provision called Japan Platform for Patent Information (J-PlatPat) was launched in March 2015. J-PlatPat allows searches through official bulletins for patents in Japan, utility model patents, designs, and trademarks, as well as official bulletins issued in major foreign countries (EU and U.S.), and verification of the progress of patent examinations, registrations and appeals. Furthermore, to enable foreign patent documents and particularly the increasing numbers of Chinese and South Korean patent documents to be searched in Japanese, the Chinese and Korean Document Translation and Search System was launched in January 2015, and the Foreign Patent Information Service (FOPISER) was launched in August 2015 for referencing patent information in the ASEAN and foreign countries that are prominent destinations of overseas expansion by Japanese enterprises. These services are available free of charge via the Internet. (Ongoing)

Section 3 Promotion of standardization

1. Promotion of the strategic utilization of standardization by medium enterprises and SMEs
The Standardization Support Partnership System, which provides information and advice on the strategic utilization of standardization in the regions via a framework of cooperation between local government bodies, industrial promotion organizations, regional finance institutions, university and public research institutions (partner institutions), and the Japanese Standards Association (JSA), will continue to provide support to second-tier enterprises and SMEs such as by holding seminars on the strategic utilization of standardization. (Ongoing)

Section 4 Promotion of surveys and public information activities

1. Publicizing of policy
To publicize SME policy, guidebooks and leaflets summarizing the main points will be produced and distributed to local governments, SME support agencies and financial institutions, etc., and further publicity will be generated by issuing information via portal site for SME support (Mirasapo) and organizing "One-day SME Agency" events.
(1) Publication of booklets
Guidebooks and leaflets for utilizing SME policies have been produced, including the "Guide to the Use of SME Policy," which contains an introduction of more than 200 policies. These will be distributed to a wide range of interested parties, including SMEs,

local government bodies, SME support agencies (societies and chambers of commerce and industry, etc.), financial institutions, and certified public tax accountants, lawyers, certified public accountants, and SME management consultants who provide support to SMEs. (Ongoing)

(2) Organization of "One-day SME Agency" events
Co-hosted by the SME Agency and host prefectures, these events will be held both to explain the latest measures to local SMEs and deepen their understanding of the measures. The events will also provide a forum for exchanges of ideas and interaction, toward contributing to future revisions and improvements in SME policy. These events have been held every year since 1964. (Ongoing)

(3) Publicity using the Internet
1) Website based publicity
Up-to-date information on SME measures, information on public offerings, and publicity materials such as flyers and booklets will be posted on the SME Agency website. (Ongoing)
2) E-mail newsletters
In association with SME support agencies, an e-mail newsletter will be issued to subscribers every Wednesday, containing information of subsidies and other support measures, local updates, surveys and research reports, and information concerning events. (Ongoing)

(4) "Mirasapo" (portal website for supporting the future of SMEs and micro businesses)
Through the Mirasapo site, the latest support information, information on how to apply for subsidies, case examples of the utilization of support schemes, etc. will be delivered to nationwide SMEs in a timely and easy-to-understand manner. (Ongoing)

2. Production of the White Paper on Small and Medium Enterprises in Japan and the White Paper on Small Enterprises
In order to ascertain the current situation of SMEs and the challenges that they face, an annual report (2018 White Paper on Small and Medium Enterprises in Japan) will be produced in accordance with the provisions of Article 11 of the Small and Medium-sized Enterprise Basic Act. Also to ascertain the current situation of small enterprises and the challenges they face, an annual report (2018 White Paper on Small Enterprises) will be produced in accordance with the provisions of Article 12 of the Small Enterprises Promotion Act. (Ongoing)

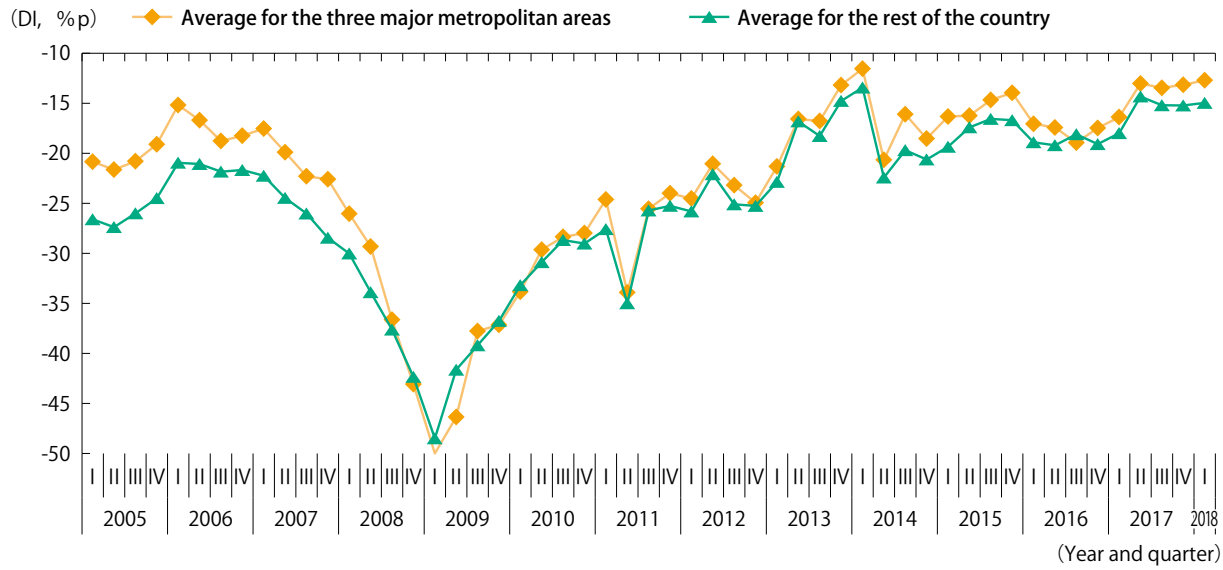
3. Basic Survey of Small and Medium Enterprises
The Basic Survey of Small and Medium Enterprises will be conducted in accordance with the provisions of Article 10 of the Small and Medium-sized Enterprise Basic Act, to acquire statistics concerning management and financial information such as SME sales figures and numbers of workers employed by SMEs. (Ongoing)

4. Publication of the Survey on SME Business Conditions
The Survey on SME Business Conditions will be published quarterly by SMRJ to ascertain business trends among SMEs. (Ongoing)

Appended notes

Contents

Appended note 1-1-1 Business conditions DI for Japan's three major metropolitan areas and the rest of the country



Source: SME Agency and SMRJ, *Survey on SME Business Conditions*.

Notes:
1. The business conditions DI in the survey is the percentage of companies that described recent business conditions as "good" minus the percentage (%) of companies that described the conditions as "poor," in comparison with the previous quarter.
2. The average for the three major metropolitan areas is the average of the business conditions DI for each prefecture making up the Tokyo metropolitan area (Saitama, Chiba, Tokyo and Kanagawa Prefectures), the Osaka metropolitan area (Kyoto, Osaka, Hyogo and Nara Prefectures), and the Nagoya metropolitan area (Gifu, Aichi and Mie Prefectures), weighted by the number of companies responding in each prefecture; the average for the rest of the country is the average of the business conditions DI for other prefectures, weighted by the number of companies responding in each prefecture.

Appended note 1-4-1 Structural Equation Modeling

This section provides a supplementary explanation of the method of analysis using structural equation modeling (SEM) employed in Part I, Chapter 4, Section 1.

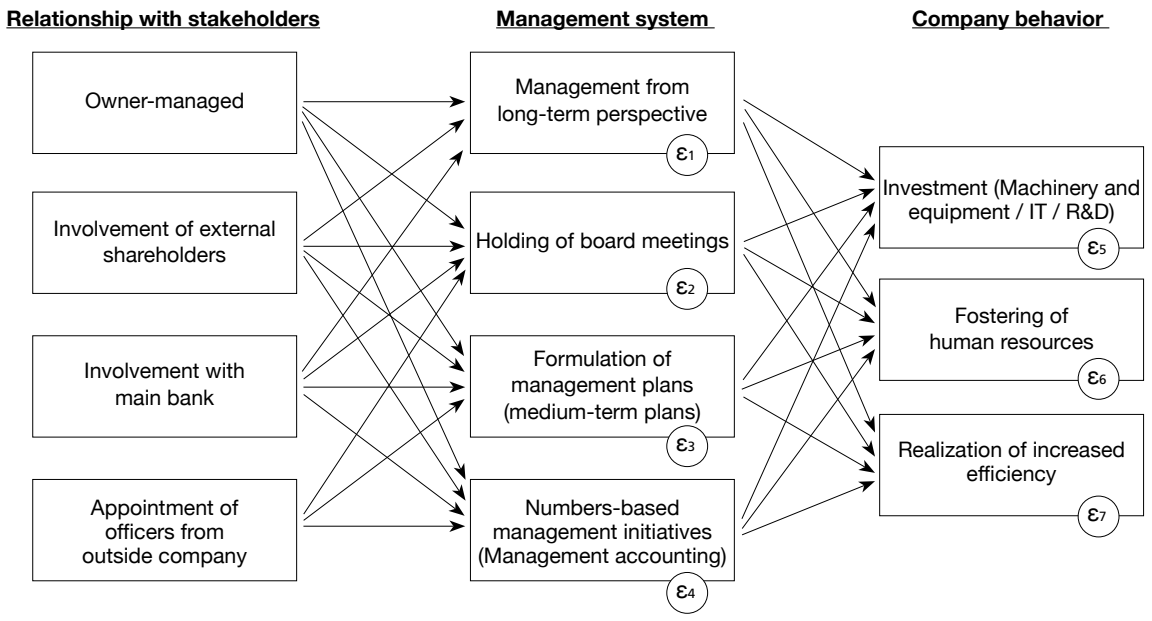
Structural equation modeling is a method of analysis in which the relationships between large numbers of variables set as hypotheses are modeled as linear combinations. This method is particularly useful in testing the validity of hypotheses. Structural equation modeling makes it possible to conduct analyses that integrate correlation analysis, regression analysis and factor analysis. Other merits of the method are that it offers the ability to conduct analyses that incorporate latent variables (factors that cannot be directly measured), and allows the setting of multiple dependent variables in a single analysis.

For the analysis conducted in this paper, each of the observed variables was classified into the categories "Relationship with stakeholders," "Management system," and "Company behavior." An analysis model was formulated by drawing lines from the indicator groups classified in "Relationship with stakeholders" to the indicator groups classified in "Management system," and from the indicator groups classified in "Management system" to the indicator groups classified in "Company behavior." Latent variables were not set for this analysis.

In addition, because each indicator was a dummy variable that took a value of 1 or 0, the paths between variables were modeled using the probit method. Given this, generalized structural equation modeling (GSEM) compatible with a probit regression model was applied.

The notation α_i superimposed on the indicator groups classified in "Management system" and "Company behavior" represents the coefficients of the respective constant terms.

Appended figure 1 **Model structure**



Data obtained from a questionnaire survey of 10,000 SMEs and other companies (response rate: 24.2%) conducted in November 2017 was employed for the indicators. The variables employed were as follow.

Appended figure 2 **Definition of variables**

Category	Indicator	Definition of indicator
Relationship with stakeholders	Owner-managed	Irrespective of existence of external shareholders, dummy variable with companies responding “Owner-managed” as 1 and other companies as 0
	Involvement of external shareholders	Irrespective of whether or not the company is owner-managed, dummy variable with companies with external shareholders as 1 and other companies as 0
	Involvement with main bank	Dummy variable with companies responding that they had a main bank as 1 and other companies as 0
	Appointment of officers from outside company	Dummy variable with companies accepting external directors 10 years previously as 1 and other companies as 0
Management system	Management from long-term perspective	Dummy variable with companies responding “10 years” or more to the question “Do you manage your business looking ahead for a certain number of years?” as 1 and other companies as 0
	Holding of board meetings	Dummy variable with companies responding that they had established a Board of Directors 10 years previously as 1 and other companies as 0
	Formulation of management plans (medium-term plans)	Dummy variable with companies responding that they had formulated a medium-term plan 10 years previously as 1 and other companies as 0
	Numbers-based management initiatives (Management accounting)	Dummy variable with companies responding that they had introduced management accounting 10 years previously as 1 and other companies as 0
Company behavior	Investment (Machinery and equipment / IT / R&D)	Dummy variable with companies responding that they conducted more than one of the indicated types of investment (machinery and equipment investment, IT investment, R&D investment) “Without fail every year” or “Almost every year” as 1 and other companies as 0
	Fostering of human resources	Dummy variable with companies responding that they invested in human resource development “Without fail every year” or “Almost every year” as 1 and other companies as 0
	Realization of increased efficiency	Dummy variable with companies responding that they conducted initiatives to increase efficiency “Without fail every year” or “Almost every year” as 1 and other companies as 0

The results of the estimates were as follows.

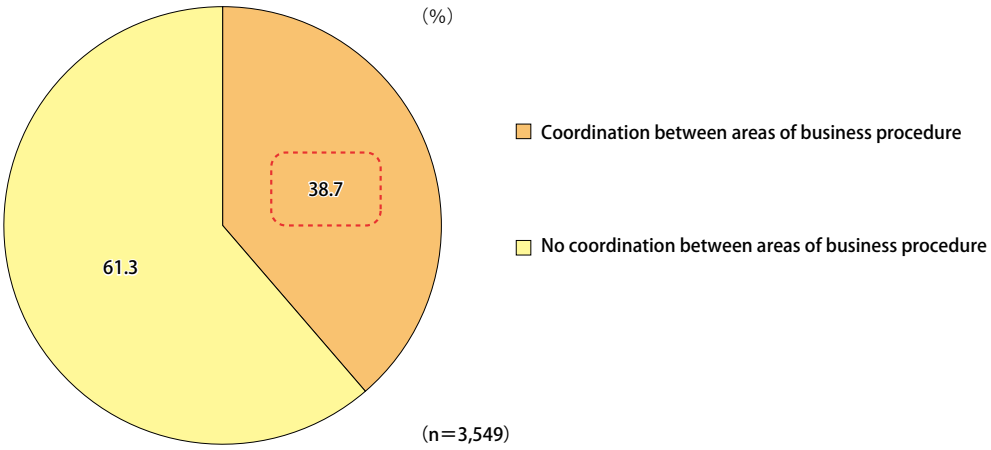
Appended figure 3 **SEM estimation results**

Variable	Coefficient	Standard error	Z-score	p-value	95% confidence interval		Significance level
Management thinking from long-term perspective							
Owner-managed	0.33	0.12	2.83	0.01	0.10	0.56	***
External shareholders	−0.07	0.10	−0.74	0.46	−0.26	0.12	
Main bank	0.26	0.17	1.54	0.12	−0.07	0.59	
Appointment of directors from outside company	−0.08	0.11	−0.79	0.43	−0.29	0.12	
Constant term	−1.69	0.20	−8.43	0.00	−2.09	−1.30	***
Sample number：1,636							
Holding of board meetings							
Owner-managed	−0.25	0.11	−2.27	0.02	−0.47	−0.03	**
External shareholders	0.56	0.08	6.67	0.00	0.40	0.72	***
Main bank	0.30	0.13	2.32	0.02	0.05	0.55	**
Appointment of directors from outside company	0.87	0.12	7.28	0.00	0.64	1.11	***
Constant term	0.32	0.16	1.99	0.05	0.00	0.64	**
Sample number：1,636							
Management planning functions							
Owner-managed	−0.23	0.08	−2.82	0.01	−0.38	−0.07	***
External shareholders	0.19	0.08	2.43	0.02	0.04	0.35	**
Main bank	−0.16	0.11	−1.44	0.15	−0.37	0.06	
Appointment of directors from outside company	0.39	0.08	5.11	0.00	0.24	0.54	***
Constant term	−0.33	0.14	−2.44	0.02	−0.60	−0.07	**
Sample number：1,624							
Management functions							
Owner-managed	0.03	0.08	0.32	0.75	−0.14	0.19	
External shareholders	0.04	0.08	0.51	0.61	−0.11	0.19	
Main bank	0.08	0.11	0.71	0.48	−0.14	0.30	
Appointment of directors from outside company	0.43	0.08	5.36	0.00	0.27	0.58	***
Constant term	0.13	0.14	0.96	0.34	−0.14	0.40	
Sample number：1,616							
Investment							
Management thinking from long-term perspective	0.25	0.09	2.79	0.01	0.07	0.43	***
Holding of board meetings	0.14	0.08	1.73	0.08	−0.02	0.29	*
Management planning functions	0.28	0.06	4.53	0.00	0.16	0.41	***
Management functions	0.11	0.06	1.74	0.08	−0.01	0.24	*
Constant term	−0.82	0.08	−10.30	0.00	−0.97	−0.66	***
Sample number：1,095							
Development of human resources							
Management thinking from long-term perspective	0.41	0.10	3.98	0.00	0.21	0.61	***
Holding of board meetings	0.27	0.08	3.65	0.00	0.13	0.42	***
Management planning functions	0.42	0.07	6.27	0.00	0.29	0.55	***
Management functions	0.14	0.06	2.16	0.03	0.01	0.26	**
Constant term	0.00	0.07	0.06	0.95	−0.14	0.15	
Sample number：2,066							
Realization of increased efficiency							
Management thinking from long-term perspective	0.29	0.09	3.15	0.00	0.11	0.48	***
Holding of board meetings	0.16	0.07	2.21	0.03	0.02	0.31	**
Management planning functions	0.45	0.06	7.12	0.00	0.32	0.57	***
Management functions	0.12	0.06	1.94	0.05	0.00	0.24	*
Constant term	−0.24	0.07	−3.28	0.00	−0.39	−0.10	***
Sample number：2,052							
Log-likelihood		7114.1787					

Significance level: * $p < 0.1$, ** $P < 0.05$, *** $P < 0.01$

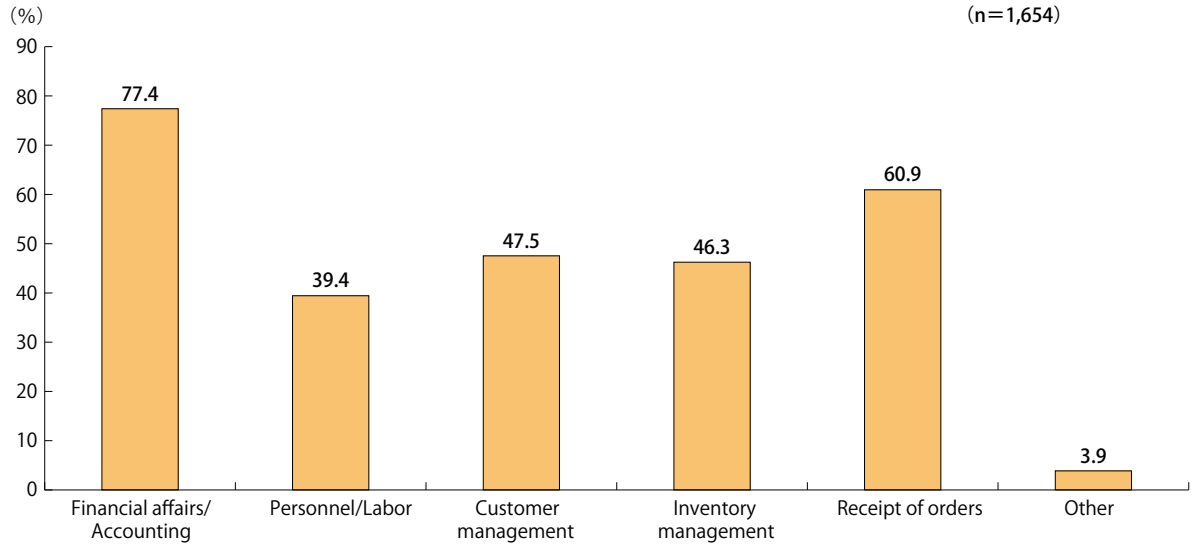
Appended note 2-4-1 Status of coordination between areas of business procedures with use of IT

(1) Coordination or lack of coordination between areas of business procedure



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).

(2) Areas of business procedure covered by coordination



Source: Mitsubishi UFJ Research and Consulting Co., Ltd., *Survey on Initiatives for Increasing Productivity to Address Labor Shortages* (December 2017).
Note: Number of companies responding that they realized coordination between areas of business procedure as parameter.

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Supplementary statistical data

Contents

Table 1 Number of enterprises by industry and size (private, non-primary industry, 2009, 2012 and 2014)

(1) Number of enterprises (Number of companies + sole proprietorships)

Industry	Year	SMEs		Of which small enterprises		Large enterprises		Total	
		No.	% of total	No.	% of total	No.	% of total	No.	% of total
Mining and quarrying of stone and gravel	2009	2,059	99.8	1,844	89.4	4	0.2	2,063	100.0
	2012	1,676	99.9	1,489	88.7	2	0.1	1,678	100.0
	2014	1,454	99.7	1,284	88.1	4	0.3	1,458	100.0
Construction	2009	519,259	99.9	499,167	96.1	280	0.1	519,539	100.0
	2012	467,119	99.9	448,293	95.9	291	0.1	467,410	100.0
	2014	455,269	99.9	435,110	95.5	284	0.1	455,553	100.0
Manufacturing	2009	446,499	99.5	394,281	87.9	2,036	0.5	448,535	100.0
	2012	429,468	99.5	373,766	86.6	2,044	0.5	431,512	100.0
	2014	413,339	99.5	358,769	86.4	1,957	0.5	415,296	100.0
Electricity, gas, heat supply and water	2009	786	96.7	528	64.9	27	3.3	813	100.0
	2012	657	96.1	410	59.9	27	3.9	684	100.0
	2014	1,000	97.2	708	68.8	29	2.8	1,029	100.0
Information and communications	2009	49,503	97.6	34,526	68.1	1,222	2.4	50,725	100.0
	2012	44,332	98.9	29,558	65.9	508	1.1	44,840	100.0
	2014	45,254	98.8	29,993	65.5	533	1.2	45,787	100.0
Transport and postal activities	2009	81,373	99.7	62,361	76.4	251	0.3	81,624	100.0
	2012	74,316	99.7	55,287	74.2	245	0.3	74,561	100.0
	2014	73,136	99.7	53,255	72.6	251	0.3	73,387	100.0
Wholesale and retail trade	2009	1,047,079	99.6	869,196	82.7	4,224	0.4	1,051,303	100.0
	2012	919,671	99.6	751,845	81.4	3,917	0.4	923,588	100.0
	2014	896,102	99.5	712,939	79.2	4,182	0.5	900,284	100.0
Wholesale trade	2009	241,917	99.3	175,592	72.1	1,693	0.7	243,610	100.0
	2012	225,599	99.3	163,713	72.1	1,508	0.7	227,107	100.0
	2014	227,908	99.3	162,533	70.8	1,575	0.7	229,483	100.0
Retail trade	2009	805,162	99.7	693,604	85.9	2,531	0.3	807,693	100.0
	2012	694,072	99.7	588,132	84.4	2,409	0.3	696,481	100.0
	2014	668,194	99.6	550,406	82.1	2,607	0.4	670,801	100.0
Finance and insurance	2009	34,672	99.3	33,546	96.0	258	0.7	34,930	100.0
	2012	30,184	99.2	29,187	95.9	253	0.8	30,437	100.0
	2014	29,959	99.1	28,821	95.4	259	0.9	30,218	100.0
Real estate and goods rental and leasing	2009	352,548	99.9	345,065	97.8	303	0.1	352,851	100.0
	2012	325,803	99.9	318,962	97.8	276	0.1	326,079	100.0
	2014	319,221	99.9	311,568	97.5	296	0.1	319,517	100.0
Scientific research, professional and technical services	2009	203,060	99.7	174,375	85.6	582	0.3	203,642	100.0
	2012	185,730	99.7	159,400	85.6	550	0.3	186,280	100.0
	2014	188,455	99.7	160,861	85.1	622	0.3	189,077	100.0
Accommodations, eating and drinking services	2009	604,050	99.8	524,811	86.7	936	0.2	604,986	100.0
	2012	543,543	99.9	475,183	87.3	718	0.1	544,261	100.0
	2014	544,281	99.9	464,989	85.3	759	0.1	545,040	100.0
Living-related and personal services and amusement services	2009	404,764	99.9	373,089	92.1	543	0.1	405,307	100.0
	2012	383,059	99.9	357,806	93.3	512	0.1	383,571	100.0
	2014	382,304	99.9	353,250	92.3	542	0.1	382,846	100.0
Education, learning support	2009	110,895	99.9	100,213	90.3	124	0.1	111,019	100.0
	2012	103,867	99.9	92,619	89.1	121	0.1	103,988	100.0
	2014	107,479	99.9	94,409	87.7	129	0.1	107,608	100.0
Medical, health care and welfare	2009	194,822	99.9	143,584	73.6	243	0.1	195,065	100.0
	2012	195,088	99.9	140,484	71.9	232	0.1	195,320	100.0
	2014	210,326	99.9	146,427	69.5	258	0.1	210,584	100.0
Compound services	2009	3,617	99.9	3,604	99.6	2	0.1	3,619	100.0
	2012	3,476	100.0	3,461	99.5	1	0.0	3,477	100.0
	2014	3,492	100.0	3,478	99.6	1	0.0	3,493	100.0
Services (not elsewhere classified)	2009	146,278	99.4	105,171	71.5	891	0.6	147,169	100.0
	2012	144,945	99.4	105,064	72.0	899	0.6	145,844	100.0
	2014	138,157	99.3	96,393	69.3	1,004	0.7	139,161	100.0
Non-primary industry total	2009	4,201,264	99.7	3,665,361	87.0	11,926	0.3	4,213,190	100.0
	2012	3,852,934	99.7	3,342,814	86.5	10,596	0.3	3,863,530	100.0
	2014	3,809,228	99.7	3,252,254	85.1	11,110	0.3	3,820,338	100.0

(2) Number of companies

Industry	Year	SMEs		Of which small enterprises		Large enterprises		Total	
		No.	% of total	No.	% of total	No.	% of total	No.	% of total
Mining and quarrying of stone and gravel	2009	1,797	99.8	1,583	87.9	4	0.2	1,801	100.0
	2012	1,475	99.9	1,289	87.3	2	0.1	1,477	100.0
	2014	1,314	99.7	1,146	86.9	4	0.3	1,318	100.0
Construction	2009	331,079	99.9	311,096	93.9	280	0.1	331,359	100.0
	2012	303,458	99.9	284,716	93.7	291	0.1	303,749	100.0
	2014	303,521	99.9	283,424	93.3	284	0.1	303,805	100.0
Manufacturing	2009	275,030	99.3	223,100	80.5	2,036	0.7	277,066	100.0
	2012	273,525	99.3	218,107	79.1	2,044	0.7	275,569	100.0
	2014	268,552	99.3	214,231	79.2	1,957	0.7	270,509	100.0
Electricity, gas, heat supply and water	2009	786	96.7	528	64.9	27	3.3	813	100.0
	2012	657	96.1	410	59.9	27	3.9	684	100.0
	2014	990	97.2	698	68.5	29	2.8	1,019	100.0
Information and communications	2009	46,747	97.5	31,808	66.3	1,222	2.5	47,969	100.0
	2012	42,006	98.8	27,265	64.1	508	1.2	42,514	100.0
	2014	42,989	98.8	27,750	63.8	533	1.2	43,522	100.0
Transport and postal activities	2009	56,444	99.6	37,457	66.1	251	0.4	56,695	100.0
	2012	54,060	99.5	35,054	64.6	245	0.5	54,305	100.0
	2014	54,966	99.5	35,111	63.6	251	0.5	55,217	100.0
Wholesale and retail trade	2009	469,247	99.1	320,739	67.8	4,103	0.9	473,350	100.0
	2012	431,790	99.1	291,787	67.0	3,792	0.9	435,582	100.0
	2014	444,316	99.1	291,708	65.1	4,027	0.9	448,343	100.0
Wholesale trade	2009	189,621	99.1	125,327	65.5	1,693	0.9	191,314	100.0
	2012	177,307	99.2	117,116	65.5	1,508	0.8	178,815	100.0
	2014	179,936	99.1	116,348	64.1	1,575	0.9	181,511	100.0
Retail trade	2009	279,626	99.1	195,412	69.3	2,410	0.9	282,036	100.0
	2012	254,483	99.1	174,671	68.0	2,284	0.9	256,767	100.0
	2014	264,380	99.1	175,360	65.7	2,452	0.9	266,832	100.0
Finance and insurance	2009	25,694	99.0	24,568	94.7	258	1.0	25,952	100.0
	2012	23,088	98.9	22,091	94.6	253	1.1	23,341	100.0
	2014	23,712	98.9	22,574	94.2	259	1.1	23,971	100.0
Real estate and goods rental and leasing	2009	182,060	99.8	174,738	95.8	303	0.2	182,363	100.0
	2012	169,360	99.8	162,664	95.9	276	0.2	169,636	100.0
	2014	170,887	99.8	163,355	95.4	296	0.2	171,183	100.0
Scientific research, professional and technical services	2009	94,419	99.4	73,918	77.8	568	0.6	94,987	100.0
	2012	83,356	99.4	64,630	77.0	530	0.6	83,886	100.0
	2014	86,128	99.3	65,648	75.7	607	0.7	86,735	100.0
Accommodations, eating and drinking services	2009	96,675	99.1	48,328	49.5	908	0.9	97,583	100.0
	2012	98,097	99.3	56,391	57.1	682	0.7	98,779	100.0
	2014	108,051	99.3	57,230	52.6	721	0.7	108,772	100.0
Living-related and personal services and amusement services	2009	63,723	99.2	37,377	58.2	542	0.8	64,265	100.0
	2012	63,597	99.2	42,545	66.4	507	0.8	64,104	100.0
	2014	68,886	99.2	44,376	63.9	536	0.8	69,422	100.0
Education, learning support	2009	15,818	99.2	9,195	57.7	124	0.8	15,942	100.0
	2012	15,446	99.2	8,834	56.8	119	0.8	15,565	100.0
	2014	17,715	99.3	9,622	53.9	125	0.7	17,840	100.0
Medical, health care and welfare	2009	24,368	99.5	10,062	41.1	130	0.5	24,498	100.0
	2012	28,077	99.5	10,830	38.4	145	0.5	28,222	100.0
	2014	39,000	99.5	13,869	35.4	187	0.5	39,187	100.0
Compound services	2009	74	97.4	67	88.2	2	2.6	76	100.0
	2012	111	99.1	102	91.1	1	0.9	112	100.0
	2014	85	98.8	76	88.4	1	1.2	86	100.0
Services (not elsewhere classified)	2009	91,350	99.0	51,538	55.9	887	1.0	92,237	100.0
	2012	89,846	99.0	51,178	56.4	897	1.0	90,743	100.0
	2014	88,693	98.9	48,083	53.6	1,000	1.1	89,693	100.0
Non-primary industry total	2009	1,775,311	99.3	1,356,102	75.9	11,645	0.7	1,786,956	100.0
	2012	1,677,949	99.4	1,277,893	75.7	10,319	0.6	1,688,268	100.0
	2014	1,719,805	99.4	1,278,901	73.9	10,817	0.6	1,730,622	100.0

(3) Number of sole proprietorships

Industry	Year	SMEs				Large enterprises		Total	
				Of which small enterprises					
		No.	% of total	No.	% of total	No.	% of total	No.	% of total
Mining and quarrying of stone and gravel	2009	262	100.0	261	99.6	0	0.0	262	100.0
	2012	201	100.0	200	99.5	0	0.0	201	100.0
	2014	140	100.0	138	98.6	0	0.0	140	100.0
Construction	2009	188,180	100.0	188,071	99.9	0	0.0	188,180	100.0
	2012	163,661	100.0	163,577	99.9	0	0.0	163,661	100.0
	2014	151,748	100.0	151,686	100.0	0	0.0	151,748	100.0
Manufacturing	2009	171,469	100.0	171,181	99.8	0	0.0	171,469	100.0
	2012	155,943	100.0	155,659	99.8	0	0.0	155,943	100.0
	2014	144,787	100.0	144,538	99.8	0	0.0	144,787	100.0
Electricity, gas, heat supply and water	2009	0	-	0	-	0	-	0	-
	2012	0	-	0	-	0	-	0	-
	2014	10	100.0	10	100.0	0	0.0	10	100.0
Information and communications	2009	2,756	100.0	2,718	98.6	0	0.0	2,756	100.0
	2012	2,326	100.0	2,293	98.6	0	0.0	2,326	100.0
	2014	2,265	100.0	2,243	99.0	0	0.0	2,265	100.0
Transport and postal activities	2009	24,929	100.0	24,904	99.9	0	0.0	24,929	100.0
	2012	20,256	100.0	20,233	99.9	0	0.0	20,256	100.0
	2014	18,170	100.0	18,144	99.9	0	0.0	18,170	100.0
Wholesale and retail trade	2009	577,832	100.0	548,457	94.9	121	0.0	577,953	100.0
	2012	487,881	100.0	460,058	94.3	125	0.0	488,006	100.0
	2014	451,786	100.0	421,231	93.2	155	0.0	451,941	100.0
Wholesale trade	2009	52,296	100.0	50,265	96.1	0	0.0	52,296	100.0
	2012	48,292	100.0	46,597	96.5	0	0.0	48,292	100.0
	2014	47,972	100.0	46,185	96.3	0	0.0	47,972	100.0
Retail trade	2009	525,536	100.0	498,192	94.8	121	0.0	525,657	100.0
	2012	439,589	100.0	413,461	94.0	125	0.0	439,714	100.0
	2014	403,814	100.0	375,046	92.8	155	0.0	403,969	100.0
Finance and insurance	2009	8,978	100.0	8,978	100.0	0	0.0	8,978	100.0
	2012	7,096	100.0	7,096	100.0	0	0.0	7,096	100.0
	2014	6,247	100.0	6,247	100.0	0	0.0	6,247	100.0
Real estate and goods rental and leasing	2009	170,488	100.0	170,327	99.9	0	0.0	170,488	100.0
	2012	156,443	100.0	156,298	99.9	0	0.0	156,443	100.0
	2014	148,334	100.0	148,213	99.9	0	0.0	148,334	100.0
Scientific research, professional and technical services	2009	108,641	100.0	100,457	92.5	14	0.0	108,655	100.0
	2012	102,374	100.0	94,770	92.6	20	0.0	102,394	100.0
	2014	102,327	100.0	95,213	93.0	15	0.0	102,342	100.0
Accommodations, eating and drinking services	2009	507,375	100.0	476,483	93.9	28	0.0	507,403	100.0
	2012	445,446	100.0	418,792	94.0	36	0.0	445,482	100.0
	2014	436,230	100.0	407,759	93.5	38	0.0	436,268	100.0
Living-related and personal services and amusement services	2009	341,041	100.0	335,712	98.4	1	0.0	341,042	100.0
	2012	319,462	100.0	315,261	98.7	5	0.0	319,467	100.0
	2014	313,418	100.0	308,874	98.5	6	0.0	313,424	100.0
Education, learning support	2009	95,077	100.0	91,018	95.7	0	0.0	95,077	100.0
	2012	88,421	100.0	83,785	94.8	2	0.0	88,423	100.0
	2014	89,764	100.0	84,787	94.5	4	0.0	89,768	100.0
Medical, health care and welfare	2009	170,454	99.9	133,522	78.3	113	0.1	170,567	100.0
	2012	167,011	99.9	129,654	77.6	87	0.1	167,098	100.0
	2014	171,326	100.0	132,558	77.3	71	0.0	171,397	100.0
Compound services	2009	3,543	100.0	3,537	99.8	0	0.0	3,543	100.0
	2012	3,365	100.0	3,359	99.8	0	0.0	3,365	100.0
	2014	3,407	100.0	3,402	99.9	0	0.0	3,407	100.0
Services (not elsewhere classified)	2009	54,928	100.0	53,633	97.6	4	0.0	54,932	100.0
	2012	55,099	100.0	53,886	97.8	2	0.0	55,101	100.0
	2014	49,464	100.0	48,310	97.7	4	0.0	49,468	100.0
Non-primary industry total	2009	2,425,953	100.0	2,309,259	95.2	281	0.0	2,426,234	100.0
	2012	2,174,985	100.0	2,064,921	94.9	277	0.0	2,175,262	100.0
	2014	2,089,423	100.0	1,973,353	94.4	293	0.0	2,089,716	100.0

Sources: MIC, *2009 and 2014 Economic Census for Business Frame*; Recompiled from MIC, METI, *2012 Economic Census for Business Activity*.

Notes:
1. The figures are those as of July 2009 for 2009, as of February 2012 for 2012, and as of July 2014 for 2014.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.
6. Industries are classified according to the October 2013 revised system of industry classification.
7. Direct comparisons should not be made between the present findings and results obtained from the *Establishment and Enterprise Census* published in the supplementary statistical data for past *White Papers on SMEs* as the *Economic Census for Business Frame* (1) captures a greater range of business establishments and enterprises due to its use of commercial and corporate registers and other administrative records, and (2) it surveys enterprises and establishments en bloc by having head offices report information on their branches and other operations.

Table 2 Total number of workers by industry and size (private, non-primary industry, 2009, 2012 and 2014)

(1) Enterprises (total number of workers of companies and sole proprietorships)

Industry	Year	SMEs				Large enterprises		Total	
				Of which small enterprises					
		Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total
Mining and quarrying of stone and gravel	2009	24,877	84.9	13,913	47.5	4,439	15.1	29,316	100.0
	2012	20,303	91.8	10,807	48.9	1,806	8.2	22,109	100.0
	2014	18,168	85.2	9,423	44.2	3,150	14.8	21,318	100.0
Construction	2009	3,799,618	89.7	2,631,336	62.1	435,943	10.3	4,235,561	100.0
	2012	3,398,423	89.1	2,338,163	61.3	416,141	10.9	3,814,564	100.0
	2014	3,390,493	89.2	2,237,415	58.8	412,522	10.8	3,803,015	100.0
Manufacturing	2009	6,417,905	65.0	2,173,127	22.0	3,455,691	35.0	9,873,596	100.0
	2012	6,550,429	65.6	2,130,081	21.3	3,441,424	34.4	9,991,853	100.0
	2014	6,486,389	66.4	1,998,167	20.5	3,279,571	33.6	9,765,960	100.0
Electricity, gas, heat supply and water	2009	34,528	16.9	4,456	2.2	169,571	83.1	204,099	100.0
	2012	29,502	14.9	3,432	1.7	167,968	85.1	197,470	100.0
	2014	34,590	17.3	4,608	2.3	165,874	82.7	200,464	100.0
Information and communications	2009	775,921	49.5	136,321	8.7	791,964	50.5	1,567,885	100.0
	2012	961,057	63.4	113,956	7.5	555,510	36.6	1,516,567	100.0
	2014	979,521	62.8	113,266	7.3	579,402	37.2	1,558,923	100.0
Transport and postal activities	2009	2,212,471	65.4	412,600	12.2	1,172,429	34.6	3,384,900	100.0
	2012	2,172,982	68.8	387,135	12.3	987,234	31.2	3,160,216	100.0
	2014	2,284,186	73.5	380,199	12.2	824,350	26.5	3,108,536	100.0
Wholesale and retail trade	2009	7,542,984	66.9	2,535,888	22.5	3,725,309	33.1	11,268,293	100.0
	2012	6,911,424	66.1	2,191,498	21.0	3,540,778	33.9	10,452,202	100.0
	2014	7,303,086	66.5	2,008,511	18.3	3,675,997	33.5	10,979,083	100.0
Wholesale trade	2009	2,635,710	74.1	610,899	17.2	919,620	25.9	3,555,330	100.0
	2012	2,397,968	73.3	562,523	17.2	871,421	26.7	3,269,389	100.0
	2014	2,557,628	74.5	541,928	15.8	876,683	25.5	3,434,311	100.0
Retail trade	2009	4,907,274	63.6	1,924,989	25.0	2,805,689	36.4	7,712,963	100.0
	2012	4,513,456	62.8	1,628,975	22.7	2,669,357	37.2	7,182,813	100.0
	2014	4,745,458	62.9	1,466,583	19.4	2,799,314	37.1	7,544,772	100.0
Finance and insurance	2009	226,133	17.7	124,371	9.7	1,050,748	82.3	1,276,881	100.0
	2012	200,011	16.4	110,336	9.1	1,018,792	83.6	1,218,803	100.0
	2014	222,123	17.9	112,145	9.0	1,021,775	82.1	1,243,898	100.0
Real estate and goods rental and leasing	2009	1,251,811	84.8	865,029	58.6	224,145	15.2	1,475,956	100.0
	2012	1,162,155	84.4	789,931	57.4	214,345	15.6	1,376,500	100.0
	2014	1,209,578	84.0	772,029	53.6	230,379	16.0	1,439,957	100.0
Scientific research, professional and technical services	2009	1,102,041	77.3	498,970	35.0	324,327	22.7	1,426,368	100.0
	2012	1,002,971	75.1	451,941	33.8	332,976	24.9	1,335,947	100.0
	2014	1,043,067	73.5	440,702	31.0	376,867	26.5	1,419,934	100.0
Accommodations, eating and drinking services	2009	3,535,761	70.5	1,535,858	30.6	1,477,752	29.5	5,013,513	100.0
	2012	3,463,871	71.7	1,504,546	31.1	1,367,785	28.3	4,831,656	100.0
	2014	3,801,986	73.4	1,394,749	26.9	1,378,825	26.6	5,180,811	100.0
Living-related and personal services and amusement services	2009	1,912,306	81.0	805,865	34.1	448,511	19.0	2,360,817	100.0
	2012	1,836,429	81.1	833,626	36.8	429,362	18.9	2,265,791	100.0
	2014	1,923,886	82.2	800,893	34.2	415,270	17.8	2,339,156	100.0
Education, learning support	2009	539,748	82.2	218,275	33.2	116,973	17.8	656,721	100.0
	2012	544,758	82.4	209,656	31.7	116,002	17.6	660,760	100.0
	2014	603,498	84.1	205,170	28.6	113,926	15.9	717,424	100.0
Medical, health care and welfare	2009	1,328,302	91.5	486,466	33.5	123,192	8.5	1,451,494	100.0
	2012	1,425,122	88.4	470,131	29.2	186,185	11.6	1,611,307	100.0
	2014	1,687,240	89.9	471,474	25.1	190,517	10.1	1,877,757	100.0
Compound services	2009	9,026	5.3	8,877	5.2	160,372	94.7	169,398	100.0
	2012	9,589	5.8	9,047	5.4	156,664	94.2	166,253	100.0
	2014	9,450	2.3	9,067	2.2	407,019	97.7	416,469	100.0
Services (not elsewhere classified)	2009	2,431,097	66.8	365,946	10.1	1,207,481	33.2	3,638,578	100.0
	2012	2,478,458	70.5	368,994	10.5	1,038,487	29.5	3,516,945	100.0
	2014	2,612,549	67.6	310,748	8.0	1,250,208	32.4	3,862,757	100.0
Non-primary industry total	2009	33,144,529	69.0	12,817,298	26.7	14,888,847	31.0	48,033,376	100.0
	2012	32,167,484	69.7	11,923,280	25.8	13,971,459	30.3	46,138,943	100.0
	2014	33,609,810	70.1	11,268,566	23.5	14,325,652	29.9	47,935,462	100.0

(2) Companies only (total number of workers of companies)

Industry	Year	SMEs				Large enterprises		Total	
				Of which small enterprises					
		Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total
Mining and quarrying of stone and gravel	2009	24,004	84.4	13,080	46.0	4,439	15.6	28,443	100.0
	2012	19,653	91.6	10,182	47.4	1,806	8.4	21,459	100.0
	2014	17,661	84.9	8,977	43.1	3,150	15.1	20,811	100.0
Construction	2009	3,306,298	88.4	2,141,740	57.2	435,943	11.6	3,742,241	100.0
	2012	2,973,261	87.7	1,916,117	56.5	416,141	12.3	3,389,402	100.0
	2014	3,014,569	88.0	1,863,619	54.4	412,522	12.0	3,427,091	100.0
Manufacturing	2009	5,919,750	63.1	1,683,885	18.0	3,455,691	36.9	9,375,441	100.0
	2012	6,086,029	63.9	1,674,441	17.6	3,441,424	36.1	9,527,453	100.0
	2014	6,076,443	64.9	1,596,120	17.1	3,279,571	35.1	9,356,014	100.0
Electricity, gas, heat supply and water	2009	34,528	16.9	4,456	2.2	169,571	83.1	204,099	100.0
	2012	29,502	14.9	3,432	1.7	167,968	85.1	197,470	100.0
	2014	34,573	17.2	4,591	2.3	165,874	82.8	200,447	100.0
Information and communications	2009	769,033	49.3	129,975	8.3	791,964	50.7	1,560,997	100.0
	2012	955,434	63.2	108,852	7.2	555,510	36.8	1,510,944	100.0
	2014	974,414	62.7	108,444	7.0	579,402	37.3	1,553,816	100.0
Transport and postal activities	2009	2,168,588	64.9	369,576	11.1	1,172,429	35.1	3,341,017	100.0
	2012	2,137,396	68.4	352,395	11.3	987,234	31.6	3,124,630	100.0
	2014	2,252,173	73.2	349,037	11.3	824,350	26.8	3,076,523	100.0
Wholesale and retail trade	2009	5,804,258	61.0	1,241,244	13.0	3,713,725	39.0	9,517,983	100.0
	2012	5,420,469	60.6	1,112,621	12.4	3,530,574	39.4	8,951,043	100.0
	2014	5,908,798	61.7	1,063,072	11.1	3,661,819	38.3	9,570,617	100.0
Wholesale trade	2009	2,479,700	72.9	479,308	14.1	919,620	27.1	3,399,320	100.0
	2012	2,257,082	72.1	441,022	14.1	871,421	27.9	3,128,503	100.0
	2014	2,421,852	73.4	426,024	12.9	876,683	26.6	3,298,535	100.0
Retail trade	2009	3,324,558	54.3	761,936	12.5	2,794,105	45.7	6,118,663	100.0
	2012	3,163,387	54.3	671,599	11.5	2,659,153	45.7	5,822,540	100.0
	2014	3,486,946	55.6	637,048	10.2	2,785,136	44.4	6,272,082	100.0
Finance and insurance	2009	208,488	16.6	106,726	8.5	1,050,748	83.4	1,259,236	100.0
	2012	186,365	15.5	96,690	8.0	1,018,792	84.5	1,205,157	100.0
	2014	210,414	17.1	100,436	8.2	1,021,775	82.9	1,232,189	100.0
Real estate and goods rental and leasing	2009	984,108	81.4	599,169	49.6	224,145	18.6	1,208,253	100.0
	2012	912,033	81.0	541,499	48.1	214,345	19.0	1,126,378	100.0
	2014	980,035	81.0	543,867	44.9	230,379	19.0	1,210,414	100.0
Scientific research, professional and technical services	2009	761,013	70.4	246,036	22.7	320,626	29.6	1,081,639	100.0
	2012	682,552	67.6	212,816	21.1	327,718	32.4	1,010,270	100.0
	2014	734,439	66.3	207,534	18.7	374,053	33.7	1,108,492	100.0
Accommodations, eating and drinking services	2009	1,913,183	56.5	245,811	7.3	1,475,704	43.5	3,388,887	100.0
	2012	2,018,723	59.7	342,624	10.1	1,364,691	40.3	3,383,414	100.0
	2014	2,433,701	63.9	324,979	8.5	1,375,540	36.1	3,809,241	100.0
Living-related and personal services and amusement services	2009	1,205,984	72.9	163,453	9.9	448,304	27.1	1,654,288	100.0
	2012	1,182,773	73.4	228,434	14.2	428,669	26.6	1,611,442	100.0
	2014	1,302,071	75.9	231,364	13.5	414,377	24.1	1,716,448	100.0
Education, learning support	2009	311,024	72.7	39,478	9.2	116,973	27.3	427,997	100.0
	2012	320,305	73.5	41,138	9.4	115,710	26.5	436,015	100.0
	2014	380,453	77.1	40,522	8.2	113,289	22.9	493,742	100.0
Medical, health care and welfare	2009	487,743	82.7	51,874	8.8	102,205	17.3	589,948	100.0
	2012	602,477	78.1	53,041	6.9	169,375	21.9	771,852	100.0
	2014	861,258	83.0	60,759	5.9	176,112	17.0	1,037,370	100.0
Compound services	2009	277	0.2	173	0.1	160,372	99.8	160,649	100.0
	2012	788	0.5	291	0.2	156,664	99.5	157,452	100.0
	2014	558	0.1	216	0.1	407,019	99.9	407,577	100.0
Services (not elsewhere classified)	2009	2,289,163	65.5	240,725	6.9	1,206,917	34.5	3,496,080	100.0
	2012	2,336,683	69.2	241,786	7.2	1,038,141	30.8	3,374,824	100.0
	2014	2,489,796	66.6	202,449	5.4	1,249,553	33.4	3,739,349	100.0
Non-primary industry total	2009	26,187,442	63.8	7,277,401	17.7	14,849,756	36.2	41,037,198	100.0
	2012	25,864,443	65.0	6,936,359	17.4	13,934,762	35.0	39,799,205	100.0
	2014	27,671,356	65.9	6,705,986	16.0	14,288,785	34.1	41,960,141	100.0

(3) Sole proprietorships only (total number of workers of sole proprietorships)

Industry	Year	SMEs				Large enterprises		Total	
				Of which small enterprises					
		Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total
Mining and quarrying of stone and gravel	2009	873	100.0	833	95.4	0	0.0	873	100.0
	2012	650	100.0	625	96.2	0	0.0	650	100.0
	2014	507	100.0	446	88.0	0	0.0	507	100.0
Construction	2009	493,320	100.0	489,596	99.2	0	0.0	493,320	100.0
	2012	425,162	100.0	422,046	99.3	0	0.0	425,162	100.0
	2014	375,924	100.0	373,796	99.4	0	0.0	375,924	100.0
Manufacturing	2009	498,155	100.0	489,242	98.2	0	0.0	498,155	100.0
	2012	464,400	100.0	455,640	98.1	0	0.0	464,400	100.0
	2014	409,946	100.0	402,047	98.1	0	0.0	409,946	100.0
Electricity, gas, heat supply and water	2009	0	-	0	-	0	-	0	-
	2012	0	-	0	-	0	-	0	-
	2014	17	100.0	17	100.0	0	0.0	17	100.0
Information and communications	2009	6,888	100.0	6,346	92.1	0	0.0	6,888	100.0
	2012	5,623	100.0	5,104	90.8	0	0.0	5,623	100.0
	2014	5,107	100.0	4,822	94.4	0	0.0	5,107	100.0
Transport and postal activities	2009	43,883	100.0	43,024	98.0	0	0.0	43,883	100.0
	2012	35,586	100.0	34,740	97.6	0	0.0	35,586	100.0
	2014	32,013	100.0	31,162	97.3	0	0.0	32,013	100.0
Wholesale and retail trade	2009	1,738,726	99.3	1,294,644	74.0	11,584	0.7	1,750,310	100.0
	2012	1,490,955	99.3	1,078,877	71.9	10,204	0.7	1,501,159	100.0
	2014	1,394,288	99.0	945,439	67.1	14,178	1.0	1,408,466	100.0
Wholesale trade	2009	156,010	100.0	131,591	84.3	0	0.0	156,010	100.0
	2012	140,886	100.0	121,501	86.2	0	0.0	140,886	100.0
	2014	135,776	100.0	115,904	85.4	0	0.0	135,776	100.0
Retail trade	2009	1,582,716	99.3	1,163,053	73.0	11,584	0.7	1,594,300	100.0
	2012	1,350,069	99.2	957,376	70.4	10,204	0.8	1,360,273	100.0
	2014	1,258,512	98.9	829,535	65.2	14,178	1.1	1,272,690	100.0
Finance and insurance	2009	17,645	100.0	17,645	100.0	0	0.0	17,645	100.0
	2012	13,646	100.0	13,646	100.0	0	0.0	13,646	100.0
	2014	11,709	100.0	11,709	100.0	0	0.0	11,709	100.0
Real estate and goods rental and leasing	2009	267,703	100.0	265,860	99.3	0	0.0	267,703	100.0
	2012	250,122	100.0	248,432	99.3	0	0.0	250,122	100.0
	2014	229,543	100.0	228,162	99.4	0	0.0	229,543	100.0
Scientific research, professional and technical services	2009	341,028	98.9	252,934	73.4	3,701	1.1	344,729	100.0
	2012	320,419	98.4	239,125	73.4	5,258	1.6	325,677	100.0
	2014	308,628	99.1	233,168	74.9	2,814	0.9	311,442	100.0
Accommodations, eating and drinking services	2009	1,622,578	99.9	1,290,047	79.4	2,048	0.1	1,624,626	100.0
	2012	1,445,148	99.8	1,161,922	80.2	3,094	0.2	1,448,242	100.0
	2014	1,368,285	99.8	1,069,770	78.0	3,285	0.2	1,371,570	100.0
Living-related and personal services and amusement services	2009	706,322	100.0	642,412	90.9	207	0.0	706,529	100.0
	2012	653,656	99.9	605,192	92.5	693	0.1	654,349	100.0
	2014	621,815	99.9	569,529	91.5	893	0.1	622,708	100.0
Education, learning support	2009	228,724	100.0	178,797	78.2	0	0.0	228,724	100.0
	2012	224,453	99.9	168,518	75.0	292	0.1	224,745	100.0
	2014	223,045	99.7	164,648	73.6	637	0.3	223,682	100.0
Medical, health care and welfare	2009	840,559	97.6	434,592	50.4	20,987	2.4	861,546	100.0
	2012	822,645	98.0	417,090	49.7	16,810	2.0	839,455	100.0
	2014	825,982	98.3	410,715	48.9	14,405	1.7	840,387	100.0
Compound services	2009	8,749	100.0	8,704	99.5	0	0.0	8,749	100.0
	2012	8,801	100.0	8,756	99.5	0	0.0	8,801	100.0
	2014	8,892	100.0	8,851	99.5	0	0.0	8,892	100.0
Services (not elsewhere classified)	2009	141,934	99.6	125,221	87.9	564	0.4	142,498	100.0
	2012	141,775	99.8	127,208	89.5	346	0.2	142,121	100.0
	2014	122,753	99.5	108,299	87.8	655	0.5	123,408	100.0
Non-primary industry total	2009	6,957,087	99.4	5,539,897	79.2	39,091	0.6	6,996,178	100.0
	2012	6,303,041	99.4	4,986,921	78.7	36,697	0.6	6,339,738	100.0
	2014	5,938,454	99.4	4,562,580	76.4	36,867	0.6	5,975,321	100.0

Sources: MIC, *2009 and 2014 Economic Census for Business Frame*; Recompiled from MIC, METI, *2012 Economic Census for Business Activity*.

Notes:
1. The figures are those as of July 2009 for 2009, as of February 2012 for 2012, and as of July 2014 for 2014.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.
6. Industries are classified according to the October 2013 revised system of industry classification.
7. Direct comparisons should not be made between the present findings and results obtained from the *Establishment and Enterprise Census* published in the supplementary statistical data for past *White Papers on SMEs* as the *Economic Census for Business Frame* (1) captures a greater range of business establishments and enterprises due to its use of commercial and corporate registers and other administrative records, and (2) it surveys enterprises and establishments en bloc by having head offices report information on their branches and other operations.

Table 3 Number of regular employees by industry and size (private, non-primary industry, 2009, 2012 and 2014)

(1) Enterprises (number of regular employees of companies and sole proprietorships)

Industry	Year	SMEs		Of which small enterprises		Large enterprises		Total	
		No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total
Mining and quarrying of stone and gravel	2009	19,581	81.3	9,647	40.0	4,507	18.7	24,088	100.0
	2012	15,948	90.1	7,198	40.6	1,761	9.9	17,709	100.0
	2014	14,560	77.5	6,597	35.1	4,231	22.5	18,791	100.0
Construction	2009	2,647,321	85.9	1,580,988	51.3	434,462	14.1	3,081,783	100.0
	2012	2,383,460	85.2	1,411,548	50.5	413,238	14.8	2,796,698	100.0
	2014	2,467,738	85.7	1,400,733	48.7	410,487	14.3	2,878,225	100.0
Manufacturing	2009	5,469,317	59.3	1,393,577	15.1	3,751,514	40.7	9,220,831	100.0
	2012	5,689,006	57.3	1,399,410	14.1	4,247,936	42.7	9,936,942	100.0
	2014	5,681,828	62.0	1,343,064	14.6	3,487,977	38.0	9,169,805	100.0
Electricity, gas, heat supply and water	2009	31,695	15.9	3,331	1.7	167,599	84.1	199,294	100.0
	2012	27,021	13.9	2,500	1.3	166,959	86.1	193,980	100.0
	2014	31,975	16.2	3,371	1.7	164,840	83.8	196,815	100.0
Information and communications	2009	655,129	45.7	72,781	5.1	777,308	54.3	1,432,437	100.0
	2012	850,340	60.8	60,538	4.3	547,325	39.2	1,397,665	100.0
	2014	880,620	60.6	63,958	4.4	573,628	39.4	1,454,248	100.0
Transport and postal activities	2009	1,975,693	63.9	286,171	9.3	1,117,826	36.1	3,093,519	100.0
	2012	1,953,552	67.0	271,896	9.3	964,253	33.0	2,917,805	100.0
	2014	2,084,844	72.3	276,857	9.6	800,064	27.7	2,884,908	100.0
Wholesale and retail trade	2009	5,462,645	60.7	1,006,547	11.2	3,536,291	39.3	8,998,936	100.0
	2012	5,072,244	59.6	847,814	10.0	3,441,971	40.4	8,514,215	100.0
	2014	5,643,075	61.2	850,130	9.2	3,583,164	38.8	9,226,239	100.0
Wholesale trade	2009	2,101,156	70.3	283,278	9.5	887,346	29.7	2,988,502	100.0
	2012	1,906,462	68.7	260,206	9.4	868,141	31.3	2,774,603	100.0
	2014	2,090,910	70.5	264,850	8.9	876,437	29.5	2,967,347	100.0
Retail trade	2009	3,361,489	55.9	723,269	12.0	2,648,945	44.1	6,010,434	100.0
	2012	3,165,782	55.2	587,608	10.2	2,573,830	44.8	5,739,612	100.0
	2014	3,552,165	56.8	585,280	9.4	2,706,727	43.2	6,258,892	100.0
Finance and insurance	2009	160,064	13.2	66,266	5.5	1,055,313	86.8	1,215,377	100.0
	2012	144,249	12.3	60,095	5.1	1,025,982	87.7	1,170,231	100.0
	2014	170,361	14.4	64,410	5.5	1,010,992	85.6	1,181,353	100.0
Real estate and goods rental and leasing	2009	648,054	75.2	296,512	34.4	214,194	24.8	862,248	100.0
	2012	598,952	74.0	258,781	32.0	209,970	26.0	808,922	100.0
	2014	684,658	75.6	276,582	30.5	220,985	24.4	905,643	100.0
Scientific research, professional and technical services	2009	756,175	70.8	237,476	22.2	311,715	29.2	1,067,890	100.0
	2012	692,926	67.6	213,830	20.9	332,271	32.4	1,025,197	100.0
	2014	751,933	66.8	215,485	19.1	373,431	33.2	1,125,364	100.0
Accommodations, eating and drinking services	2009	2,345,422	63.3	613,656	16.6	1,358,606	36.7	3,704,028	100.0
	2012	2,280,585	63.7	600,893	16.8	1,299,681	36.3	3,580,266	100.0
	2014	2,738,473	68.7	618,333	15.5	1,247,530	31.3	3,986,003	100.0
Living-related and personal services and amusement services	2009	1,273,599	75.8	298,740	17.8	406,134	24.2	1,679,733	100.0
	2012	1,217,936	75.5	325,103	20.2	395,118	24.5	1,613,054	100.0
	2014	1,345,409	77.8	330,449	19.1	382,994	22.2	1,728,403	100.0
Education, learning support	2009	339,809	76.7	68,867	15.6	102,948	23.3	442,757	100.0
	2012	338,486	76.0	60,220	13.5	107,033	24.0	445,519	100.0
	2014	413,400	80.6	65,307	12.7	99,410	19.4	512,810	100.0
Medical, health care and welfare	2009	991,180	89.8	265,454	24.0	112,957	10.2	1,104,137	100.0
	2012	1,089,299	86.1	255,174	20.2	175,811	13.9	1,265,110	100.0
	2014	1,356,495	88.2	265,541	17.3	182,005	11.8	1,538,500	100.0
Compound services	2009	3,370	2.1	3,247	2.0	160,187	97.9	163,557	100.0
	2012	3,866	2.4	3,355	2.1	156,625	97.6	160,491	100.0
	2014	3,975	1.0	3,616	0.9	406,903	99.0	410,878	100.0
Services (not elsewhere classified)	2009	1,925,640	63.5	148,335	4.9	1,108,015	36.5	3,033,655	100.0
	2012	1,972,751	67.1	147,196	5.0	966,049	32.9	2,938,800	100.0
	2014	2,197,332	64.7	136,184	4.0	1,197,946	35.3	3,395,278	100.0
Non-primary industry total	2009	24,704,694	62.8	6,351,595	16.2	14,619,576	37.2	39,324,270	100.0
	2012	24,330,621	62.7	5,925,551	15.3	14,451,983	37.3	38,782,604	100.0
	2014	26,466,676	65.2	5,920,617	14.6	14,146,587	34.8	40,613,263	100.0

(2) Companies only (number of regular employees of companies)

Industry	Year	SMEs		Of which small enterprises		Large enterprises		Total	
		No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total
Mining and quarrying of stone and gravel	2009	19,052	80.9	9,147	38.8	4,507	19.1	23,559	100.0
	2012	15,613	89.9	6,887	39.6	1,761	10.1	17,374	100.0
	2014	14,264	77.1	6,359	34.4	4,231	22.9	18,495	100.0
Construction	2009	2,438,945	84.9	1,376,102	47.9	434,462	15.1	2,873,407	100.0
	2012	2,211,167	84.3	1,242,014	47.3	413,238	15.7	2,624,405	100.0
	2014	2,309,996	84.9	1,244,948	45.8	410,487	15.1	2,720,483	100.0
Manufacturing	2009	5,232,735	58.2	1,166,383	13.0	3,751,514	41.8	8,984,249	100.0
	2012	5,479,835	56.3	1,198,447	12.3	4,247,936	43.7	9,727,771	100.0
	2014	5,488,007	61.1	1,156,699	12.9	3,487,977	38.9	8,975,984	100.0
Electricity, gas, heat supply and water	2009	31,695	15.9	3,331	1.7	167,599	84.1	199,294	100.0
	2012	27,021	13.9	2,500	1.3	166,959	86.1	193,980	100.0
	2014	31,969	16.2	3,365	1.7	164,840	83.8	196,809	100.0
Information and communications	2009	652,357	45.6	70,535	4.9	777,308	54.4	1,429,665	100.0
	2012	848,211	60.8	58,874	4.2	547,325	39.2	1,395,536	100.0
	2014	878,686	60.5	62,268	4.3	573,628	39.5	1,452,314	100.0
Transport and postal activities	2009	1,964,117	63.7	275,484	8.9	1,117,826	36.3	3,081,943	100.0
	2012	1,944,535	66.9	263,688	9.1	964,253	33.1	2,908,788	100.0
	2014	2,076,081	72.2	268,901	9.3	800,064	27.8	2,876,145	100.0
Wholesale and retail trade	2009	4,635,515	56.8	583,343	7.1	3,524,949	43.2	8,160,464	100.0
	2012	4,384,896	56.1	523,976	6.7	3,432,372	43.9	7,817,268	100.0
	2014	4,930,367	58.0	539,652	6.3	3,569,681	42.0	8,500,048	100.0
Wholesale trade	2009	2,027,625	69.6	231,084	7.9	887,346	30.4	2,914,971	100.0
	2012	1,844,563	68.0	214,466	7.9	868,141	32.0	2,712,704	100.0
	2014	2,027,182	69.8	218,311	7.5	876,437	30.2	2,903,619	100.0
Retail trade	2009	2,607,890	49.7	352,259	6.7	2,637,603	50.3	5,245,493	100.0
	2012	2,540,333	49.8	309,510	6.1	2,564,231	50.2	5,104,564	100.0
	2014	2,903,185	51.9	321,341	5.7	2,693,244	48.1	5,596,429	100.0
Finance and insurance	2009	153,958	12.7	60,160	5.0	1,055,313	87.3	1,209,271	100.0
	2012	139,769	12.0	55,615	4.8	1,025,982	88.0	1,165,751	100.0
	2014	166,474	14.1	60,523	5.1	1,010,992	85.9	1,177,466	100.0
Real estate and goods rental and leasing	2009	603,692	73.8	253,810	31.0	214,194	26.2	817,886	100.0
	2012	559,320	72.7	220,520	28.7	209,970	27.3	769,290	100.0
	2014	647,818	74.6	240,913	27.7	220,985	25.4	868,803	100.0
Scientific research, professional and technical services	2009	549,214	64.1	109,518	12.8	308,037	35.9	857,251	100.0
	2012	501,292	60.5	94,700	11.4	327,030	39.5	828,322	100.0
	2014	566,296	60.4	97,285	10.4	370,594	39.6	936,890	100.0
Accommodations, eating and drinking services	2009	1,546,976	53.3	109,737	3.8	1,356,300	46.7	2,903,276	100.0
	2012	1,617,162	55.5	177,405	6.1	1,296,692	44.5	2,913,854	100.0
	2014	2,050,743	62.2	187,823	5.7	1,244,504	37.8	3,295,247	100.0
Living-related and personal services and amusement services	2009	997,232	71.1	82,000	5.8	406,031	28.9	1,403,263	100.0
	2012	981,873	71.3	130,524	9.5	394,426	28.7	1,376,299	100.0
	2014	1,111,864	74.4	142,426	9.5	382,107	25.6	1,493,971	100.0
Education, learning support	2009	239,886	70.0	14,542	4.2	102,948	30.0	342,834	100.0
	2012	245,256	69.7	14,556	4.1	106,756	30.3	352,012	100.0
	2014	313,568	76.0	16,247	3.9	98,816	24.0	412,384	100.0
Medical, health care and welfare	2009	392,453	80.9	21,404	4.4	92,725	19.1	485,178	100.0
	2012	503,819	75.9	23,593	3.6	159,873	24.1	663,692	100.0
	2014	757,213	81.8	31,299	3.4	167,989	18.2	925,202	100.0
Compound services	2009	155	0.1	71	0.0	160,187	99.9	160,342	100.0
	2012	609	0.4	137	0.1	156,625	99.6	157,234	100.0
	2014	428	0.1	105	0.0	406,903	99.9	407,331	100.0
Services (not elsewhere classified)	2009	1,864,611	62.7	101,806	3.4	1,107,458	37.3	2,972,069	100.0
	2012	1,914,762	66.5	101,616	3.5	965,705	33.5	2,880,467	100.0
	2014	2,144,737	64.2	95,995	2.9	1,197,294	35.8	3,342,031	100.0
Non-primary industry total	2009	21,322,593	59.4	4,237,373	11.8	14,581,358	40.6	35,903,951	100.0
	2012	21,375,140	59.7	4,115,052	11.5	14,416,903	40.3	35,792,043	100.0
	2014	23,488,511	62.5	4,154,808	11.1	14,111,092	37.5	37,599,603	100.0

(3) Sole proprietorships only (number of regular employees of sole proprietorships)

Industry	Year	SMEs				Large enterprises		Total	
				Of which small enterprises					
		No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total
Mining and quarrying of stone and gravel	2009	529	100.0	500	94.5	0	0.0	529	100.0
	2012	335	100.0	311	92.8	0	0.0	335	100.0
	2014	296	100.0	238	80.4	0	0.0	296	100.0
Construction	2009	208,376	100.0	204,886	98.3	0	0.0	208,376	100.0
	2012	172,293	100.0	169,534	98.4	0	0.0	172,293	100.0
	2014	157,742	100.0	155,785	98.8	0	0.0	157,742	100.0
Manufacturing	2009	236,582	100.0	227,194	96.0	0	0.0	236,582	100.0
	2012	209,171	100.0	200,963	96.1	0	0.0	209,171	100.0
	2014	193,821	100.0	186,365	96.2	0	0.0	193,821	100.0
Electricity, gas, heat supply and water	2009	0	-	0	-	0	-	0	-
	2012	0	-	0	-	0	-	0	-
	2014	6	100.0	6	100.0	0	0.0	6	100.0
Information and communications	2009	2,772	100.0	2,246	81.0	0	0.0	2,772	100.0
	2012	2,129	100.0	1,664	78.2	0	0.0	2,129	100.0
	2014	1,934	100.0	1,690	87.4	0	0.0	1,934	100.0
Transport and postal activities	2009	11,576	100.0	10,687	92.3	0	0.0	11,576	100.0
	2012	9,017	100.0	8,208	91.0	0	0.0	9,017	100.0
	2014	8,763	100.0	7,956	90.8	0	0.0	8,763	100.0
Wholesale and retail trade	2009	827,130	98.6	423,204	50.5	11,342	1.4	838,472	100.0
	2012	687,348	98.6	323,838	46.5	9,599	1.4	696,947	100.0
	2014	712,708	98.1	310,478	42.8	13,483	1.9	726,191	100.0
Wholesale trade	2009	73,531	100.0	52,194	71.0	0	0.0	73,531	100.0
	2012	61,899	100.0	45,740	73.9	0	0.0	61,899	100.0
	2014	63,728	100.0	46,539	73.0	0	0.0	63,728	100.0
Retail trade	2009	753,599	98.5	371,010	48.5	11,342	1.5	764,941	100.0
	2012	625,449	98.5	278,098	43.8	9,599	1.5	635,048	100.0
	2014	648,980	98.0	263,939	39.8	13,483	2.0	662,463	100.0
Finance and insurance	2009	6,106	100.0	6,106	100.0	0	0.0	6,106	100.0
	2012	4,480	100.0	4,480	100.0	0	0.0	4,480	100.0
	2014	3,887	100.0	3,887	100.0	0	0.0	3,887	100.0
Real estate and goods rental and leasing	2009	44,362	100.0	42,702	96.3	0	0.0	44,362	100.0
	2012	39,632	100.0	38,261	96.5	0	0.0	39,632	100.0
	2014	36,840	100.0	35,669	96.8	0	0.0	36,840	100.0
Scientific research, professional and technical services	2009	206,961	98.3	127,958	60.7	3,678	1.7	210,639	100.0
	2012	191,634	97.3	119,130	60.5	5,241	2.7	196,875	100.0
	2014	185,637	98.5	118,200	62.7	2,837	1.5	188,474	100.0
Accommodations, eating and drinking services	2009	798,446	99.7	503,919	62.9	2,306	0.3	800,752	100.0
	2012	663,423	99.6	423,488	63.5	2,989	0.4	666,412	100.0
	2014	687,730	99.6	430,510	62.3	3,026	0.4	690,756	100.0
Living-related and personal services and amusement services	2009	276,367	100.0	216,740	78.4	103	0.0	276,470	100.0
	2012	236,063	99.7	194,579	82.2	692	0.3	236,755	100.0
	2014	233,545	99.6	188,023	80.2	887	0.4	234,432	100.0
Education, learning support	2009	99,923	100.0	54,325	54.4	0	0.0	99,923	100.0
	2012	93,230	99.7	45,664	48.8	277	0.3	93,507	100.0
	2014	99,832	99.4	49,060	48.9	594	0.6	100,426	100.0
Medical, health care and welfare	2009	598,727	96.7	244,050	39.4	20,232	3.3	618,959	100.0
	2012	585,480	97.3	231,581	38.5	15,938	2.7	601,418	100.0
	2014	599,282	97.7	234,242	38.2	14,016	2.3	613,298	100.0
Compound services	2009	3,215	100.0	3,176	98.8	0	0.0	3,215	100.0
	2012	3,257	100.0	3,218	98.8	0	0.0	3,257	100.0
	2014	3,547	100.0	3,511	99.0	0	0.0	3,547	100.0
Services (not elsewhere classified)	2009	61,029	99.1	46,529	75.6	557	0.9	61,586	100.0
	2012	57,989	99.4	45,580	78.1	344	0.6	58,333	100.0
	2014	52,595	98.8	40,189	75.5	652	1.2	53,247	100.0
Non-primary industry total	2009	3,382,101	98.9	2,114,222	61.8	38,218	1.1	3,420,319	100.0
	2012	2,955,481	98.8	1,810,499	60.5	35,080	1.2	2,990,561	100.0
	2014	2,978,165	98.8	1,765,809	58.6	35,495	1.2	3,013,660	100.0

Sources: MIC, *2009 and 2014 Economic Census for Business Frame*; Recompiled from MIC, METI, *2012 Economic Census for Business Activity.*

Notes:
1. The figures are those as of July 2009 for 2009, as of February 2012 for 2012, and as of July 2014 for 2014.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.
6. Industries are classified according to the October 2013 revised system of industry classification.
7. Direct comparisons should not be made between the present findings and results obtained from the *Establishment and Enterprise Census* published in the supplementary statistical data for past *White Papers on SMEs* as the *Economic Census for Business Frame* (1) captures a greater range of business establishments and enterprises due to its use of commercial and corporate registers and other administrative records, and (2) it surveys enterprises and establishments en bloc by having head offices report information on their branches and other operations.
8. The number of regular employees includes regular employees overseas.

Table 4 Sales by industry and size (private, non-primary industry, 2011 and 2013)

(1) Enterprises (sales of companies and sole proprietorships)

Industry	Year	SMEs		Of which small enterprises		Large enterprises		Total	
		Sales (¥100million)	% of total	Sales (¥100million)	% of total	Sales (¥100million)	% of total	Sales (¥100million)	% of total
Mining and quarrying of stone and gravel	2011	4,787	68.6	1,824	26.1	2,191	31.4	6,978	100.0
	2013	14,343	67.4	10,626	49.9	6,951	32.6	21,294	100.0
Construction	2011	581,465	69.9	299,745	36.0	250,945	30.1	832,410	100.0
	2013	616,064	70.2	316,188	36.0	261,185	29.8	877,248	100.0
Manufacturing	2011	1,315,374	38.4	242,706	7.1	2,107,642	61.6	3,423,016	100.0
	2013	1,250,933	36.1	222,207	6.4	2,217,637	63.9	3,468,569	100.0
Electricity, gas, heat supply and water	2011	20,251	9.3	4,791	2.2	197,698	90.7	217,948	100.0
	2013	22,890	8.9	3,180	1.2	234,069	91.1	256,959	100.0
Information and communications	2011	150,577	32.3	13,860	3.0	316,241	67.7	466,818	100.0
	2013	145,751	31.0	13,940	3.0	324,034	69.0	469,785	100.0
Transport and postal activities	2011	253,814	48.7	42,601	8.2	267,109	51.3	520,923	100.0
	2013	264,291	50.0	43,537	8.2	264,695	50.0	528,986	100.0
Wholesale and retail trade	2011	1,871,059	46.7	327,303	8.2	2,134,937	53.3	4,005,996	100.0
	2013	1,933,274	47.2	311,176	7.6	2,162,344	52.8	4,095,618	100.0
Wholesale trade	2011	1,280,702	46.5	184,253	6.7	1,472,590	53.5	2,753,292	100.0
	2013	1,319,071	47.4	176,016	6.3	1,462,618	52.6	2,781,689	100.0
Retail trade	2011	590,357	47.1	143,050	11.4	662,347	52.9	1,252,704	100.0
	2013	614,203	46.7	135,160	10.3	699,726	53.3	1,313,929	100.0
Finance and insurance	2011	78,537	9.4	14,816	1.8	758,282	90.6	836,819	100.0
	2013	86,007	10.8	29,330	3.7	712,060	89.2	798,067	100.0
Real estate and goods rental and leasing	2011	192,510	57.1	92,714	27.5	144,468	42.9	336,977	100.0
	2013	187,946	55.2	92,442	27.2	152,486	44.8	340,432	100.0
Scientific research, professional and technical services	2011	120,403	46.3	34,165	13.1	139,612	53.7	260,014	100.0
	2013	116,660	44.4	36,841	14.0	146,066	55.6	262,726	100.0
Accommodations, eating and drinking services	2011	126,942	64.6	41,478	21.1	69,685	35.4	196,628	100.0
	2013	134,661	65.9	42,051	20.6	69,766	34.1	204,427	100.0
Living-related and personal services and amusement services	2011	231,390	67.1	47,863	13.9	113,482	32.9	344,872	100.0
	2013	215,101	63.7	45,199	13.4	122,316	36.3	337,417	100.0
Education, learning support	2011	17,971	66.5	3,771	14.0	9,052	33.5	27,024	100.0
	2013	18,372	67.0	3,748	13.7	9,043	33.0	27,415	100.0
Medical, health care and welfare	2011	72,364	85.0	24,182	28.4	12,729	15.0	85,093	100.0
	2013	77,996	88.1	25,324	28.6	10,572	11.9	88,568	100.0
Compound services	2011	425	3.4	259	2.1	12,084	96.6	12,510	100.0
	2013	313	1.1	202	0.7	27,740	98.9	28,053	100.0
Services (not elsewhere classified)	2011	150,271	60.3	24,763	9.9	99,051	39.7	249,321	100.0
	2013	149,297	58.8	22,560	8.9	104,496	41.2	253,793	100.0
Non-primary industry total	2011	5,188,141	43.9	1,216,840	10.3	6,635,207	56.1	11,823,348	100.0
	2013	5,233,899	43.4	1,218,549	10.1	6,825,458	56.6	12,059,357	100.0

(2) Companies only (sales of companies)

Industry	Year	SMEs				Large enterprises		Total	
				Of which small enterprises					
		Sales (¥100million)	% of total	Sales (¥100million)	% of total	Sales (¥100million)	% of total	Sales (¥100million)	% of total
Mining and quarrying of stone and gravel	2011	4,748	68.4	1,787	25.8	2,191	31.6	6,939	100.0
	2013	14,294	67.3	10,590	49.8	6,951	32.7	21,245	100.0
Construction	2011	560,135	69.1	278,559	34.3	250,945	30.9	811,079	100.0
	2013	593,310	69.4	293,570	34.4	261,185	30.6	854,494	100.0
Manufacturing	2011	1,298,332	38.1	226,138	6.6	2,107,642	61.9	3,405,974	100.0
	2013	1,234,925	35.8	206,623	6.0	2,217,637	64.2	3,452,561	100.0
Electricity, gas, heat supply and water	2011	20,251	9.3	4,791	2.2	197,698	90.7	217,948	100.0
	2013	22,889	8.9	3,179	1.2	234,069	91.1	256,958	100.0
Information and communications	2011	150,423	32.2	13,717	2.9	316,241	67.8	466,664	100.0
	2013	145,597	31.0	13,794	2.9	324,034	69.0	469,631	100.0
Transport and postal activities	2011	252,739	48.6	41,551	8.0	267,109	51.4	519,848	100.0
	2013	263,232	49.9	42,515	8.1	264,695	50.1	527,927	100.0
Wholesale and retail trade	2011	1,773,112	45.4	260,635	6.7	2,134,621	54.6	3,907,733	100.0
	2013	1,838,094	46.0	251,516	6.3	2,161,957	54.0	4,000,051	100.0
Wholesale trade	2011	1,265,108	46.2	170,904	6.2	1,472,590	53.8	2,737,697	100.0
	2013	1,304,257	47.1	163,658	5.9	1,462,618	52.9	2,766,875	100.0
Retail trade	2011	508,004	43.4	89,731	7.7	662,031	56.6	1,170,036	100.0
	2013	533,837	43.3	87,858	7.1	699,339	56.7	1,233,176	100.0
Finance and insurance	2011	78,003	9.3	14,282	1.7	758,282	90.7	836,285	100.0
	2013	85,363	10.7	28,686	3.6	712,060	89.3	797,423	100.0
Real estate and goods rental and leasing	2011	182,112	55.8	82,384	25.2	144,468	44.2	326,580	100.0
	2013	178,070	53.9	82,610	25.0	152,486	46.1	330,555	100.0
Scientific research, professional and technical services	2011	102,091	42.3	21,831	9.0	139,232	57.7	241,323	100.0
	2013	97,856	40.2	23,722	9.7	145,752	59.8	243,608	100.0
Accommodations, eating and drinking services	2011	94,469	57.6	15,187	9.3	69,626	42.4	164,095	100.0
	2013	100,747	59.1	15,056	8.8	69,680	40.9	170,427	100.0
Living-related and personal services and amusement services	2011	216,092	65.6	34,080	10.4	113,155	34.4	329,248	100.0
	2013	199,742	62.1	31,148	9.7	121,965	37.9	321,707	100.0
Education, learning support	2011	14,836	62.1	1,574	6.6	9,050	37.9	23,886	100.0
	2013	15,276	62.9	1,526	6.3	9,027	37.1	24,303	100.0
Medical, health care and welfare	2011	21,316	65.0	1,937	5.9	11,479	35.0	32,795	100.0
	2013	25,579	72.7	2,284	6.5	9,584	27.3	35,163	100.0
Compound services	2011	238	1.9	92	0.7	12,084	98.1	12,323	100.0
	2013	131	0.5	20	0.1	27,740	99.5	27,870	100.0
Services (not elsewhere classified)	2011	144,504	59.3	19,546	8.0	99,051	40.7	243,555	100.0
	2013	143,932	57.9	17,662	7.1	104,487	42.1	248,419	100.0
Non-primary industry total	2011	4,913,402	42.6	1,018,091	8.8	6,632,873	57.4	11,546,275	100.0
	2013	4,959,036	42.1	1,024,503	8.7	6,823,308	57.9	11,782,344	100.0

(3) Sole proprietorships only (sales of sole proprietorships)

Industry	Year	SMEs				Large enterprises		Total	
				Of which small enterprises					
		Sales (¥100million)	% of total	Sales (¥100million)	% of total	Sales (¥100million)	% of total	Sales (¥100million)	% of total
Mining and quarrying of stone and gravel	2011	39	100.0	37	94.9	0	0.0	39	100.0
	2013	49	100.0	36	73.5	0	0.0	49	100.0
Construction	2011	21,330	100.0	21,186	99.3	0	0.0	21,331	100.0
	2013	22,754	100.0	22,618	99.4	0	0.0	22,754	100.0
Manufacturing	2011	17,042	100.0	16,568	97.2	0	0.0	17,042	100.0
	2013	16,008	100.0	15,584	97.4	0	0.0	16,008	100.0
Electricity, gas, heat supply and water	2011	0	-	0	-	0	-	0	-
	2013	1	100.0	1	100.0	0	0.0	1	100.0
Information and communications	2011	154	100.0	143	92.9	0	0.0	154	100.0
	2013	154	100.0	146	94.8	0	0.0	154	100.0
Transport and postal activities	2011	1,075	100.0	1,050	97.7	0	0.0	1,075	100.0
	2013	1,059	100.0	1,022	96.5	0	0.0	1,059	100.0
Wholesale and retail trade	2011	97,947	99.7	66,668	67.8	316	0.3	98,263	100.0
	2013	95,180	99.6	59,660	62.4	387	0.4	95,567	100.0
Wholesale trade	2011	15,594	100.0	13,349	85.6	0	0.0	15,595	100.0
	2013	14,814	100.0	12,358	83.4	0	0.0	14,814	100.0
Retail trade	2011	82,353	99.6	53,319	64.5	316	0.4	82,668	100.0
	2013	80,366	99.5	47,302	58.6	387	0.5	80,753	100.0
Finance and insurance	2011	534	100.0	534	100.0	0	0.0	534	100.0
	2013	644	100.0	644	100.0	0	0.0	644	100.0
Real estate and goods rental and leasing	2011	10,398	100.0	10,330	99.4	0	0.0	10,397	100.0
	2013	9,876	100.0	9,832	99.5	0	0.0	9,877	100.0
Scientific research, professional and technical services	2011	18,312	98.0	12,334	66.0	380	2.0	18,691	100.0
	2013	18,804	98.4	13,119	68.6	314	1.6	19,118	100.0
Accommodations, eating and drinking services	2011	32,473	99.8	26,291	80.8	59	0.2	32,533	100.0
	2013	33,914	99.7	26,995	79.4	86	0.3	34,000	100.0
Living-related and personal services and amusement services	2011	15,298	97.9	13,783	88.2	327	2.1	15,624	100.0
	2013	15,359	97.8	14,051	89.4	351	2.2	15,710	100.0
Education, learning support	2011	3,135	99.9	2,197	70.0	2	0.1	3,138	100.0
	2013	3,096	99.5	2,222	71.4	16	0.5	3,112	100.0
Medical, health care and welfare	2011	51,048	97.6	22,245	42.5	1,250	2.4	52,298	100.0
	2013	52,417	98.1	23,040	43.1	988	1.9	53,405	100.0
Compound services	2011	187	100.0	167	89.3	0	0.0	187	100.0
	2013	182	99.5	182	99.5	0	0.0	183	100.0
Services (not elsewhere classified)	2011	5,767	100.0	5,217	90.5	0	0.0	5,766	100.0
	2013	5,365	99.8	4,898	91.1	9	0.2	5,374	100.0
Non-primary industry total	2011	274,739	99.2	198,749	71.7	2,334	0.8	277,073	100.0
	2013	274,863	99.2	194,046	70.0	2,150	0.8	277,013	100.0

Sources: MIC, *2014 Economic Census for Business Frame*; Recompiled from MIC, METI, *2012 Economic Census for Business Activity*.

Notes:
1. The figures are those of during 2011 and 2013.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.
6. Industries are classified according to the October 2013 revised system of industry classification.

Table 5 Value added by industry and size (private, non-primary industry, 2011)

(1) Enterprises (value added of companies and sole proprietorships)

Industry	SMEs				Large enterprises		Total	
			Of which small enterprises					
	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total
Mining and quarrying of stone and gravel	1,135	81.8	427	30.8	253	18.2	1,388	100.0
Construction	121,735	78.2	72,574	46.6	33,966	21.8	155,700	100.0
Manufacturing	284,459	50.5	69,971	12.4	278,466	49.5	562,925	100.0
Electricity, gas, heat supply and water	2,838	10.2	767	2.7	25,105	89.8	27,943	100.0
Information and communications	49,938	39.5	4,181	3.3	76,615	60.5	126,553	100.0
Transport and postal activities	76,160	54.6	12,769	9.2	63,302	45.4	139,462	100.0
Wholesale and retail trade	263,533	60.1	61,689	14.1	175,187	39.9	438,719	100.0
Wholesale trade	140,426	63.6	26,161	11.8	80,503	36.4	220,929	100.0
Retail trade	123,107	56.5	35,528	16.3	94,684	43.5	217,790	100.0
Finance and insurance	15,619	10.6	6,802	4.6	131,561	89.4	147,180	100.0
Real estate and goods rental and leasing	56,901	70.1	32,910	40.5	24,306	29.9	81,207	100.0
Scientific research, professional and technical services	51,632	54.5	16,650	17.6	43,139	45.5	94,771	100.0
Accommodations, eating and drinking services	49,877	68.4	16,643	22.8	22,997	31.6	72,874	100.0
Living-related and personal services and amusement services	46,602	74.9	13,704	22.0	15,620	25.1	62,222	100.0
Education, learning support	8,393	67.7	1,667	13.4	4,004	32.3	12,397	100.0
Medical, health care and welfare	39,846	87.2	12,890	28.2	5,868	12.8	45,714	100.0
Compound services	136	2.0	120	1.8	6,685	98.0	6,821	100.0
Services (not elsewhere classified)	63,160	63.6	9,686	9.8	36,166	36.4	99,325	100.0
Non-primary industry total	1,131,964	54.5	333,449	16.1	943,240	45.5	2,075,204	100.0

(2) Companies only (value added of companies)

Industry	SMEs		Of which small enterprises		Large enterprises		Total	
	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total
Mining and quarrying of stone and gravel	1,122	81.5	415	30.2	253	18.4	1,376	100.0
Construction	112,241	76.8	63,146	43.2	33,966	23.2	146,207	100.0
Manufacturing	276,649	49.8	62,338	11.2	278,466	50.2	555,114	100.0
Electricity, gas, heat supply and water	2,838	10.2	767	2.7	25,105	89.8	27,943	100.0
Information and communications	49,866	39.4	4,114	3.3	76,615	60.6	126,481	100.0
Transport and postal activities	75,667	54.4	12,288	8.8	63,302	45.6	138,969	100.0
Wholesale and retail trade	236,363	57.4	43,146	10.5	175,079	42.6	411,442	100.0
Wholesale trade	136,666	62.9	22,936	10.6	80,503	37.1	217,169	100.0
Retail trade	99,697	51.3	20,210	10.4	94,576	48.7	194,273	100.0
Finance and insurance	15,338	10.4	6,520	4.4	131,561	89.6	146,898	100.0
Real estate and goods rental and leasing	51,659	68.0	27,699	36.5	24,306	32.0	75,965	100.0
Scientific research, professional and technical services	40,715	48.7	9,536	11.4	42,947	51.3	83,662	100.0
Accommodations, eating and drinking services	36,664	61.5	6,324	10.6	22,971	38.5	59,635	100.0
Living-related and personal services and amusement services	39,090	71.5	6,946	12.7	15,600	28.5	54,690	100.0
Education, learning support	6,867	63.2	664	6.1	4,002	36.8	10,869	100.0
Medical, health care and welfare	11,965	70.0	1,009	5.9	5,136	30.0	17,101	100.0
Compound services	28	0.4	14	0.2	6,685	99.6	6,713	100.0
Services (not elsewhere classified)	60,537	62.6	7,367	7.6	36,166	37.4	96,703	100.0
Non-primary industry total	1,017,608	51.9	252,293	12.9	942,159	48.1	1,959,767	100.0

(3) Sole proprietorships only (value added of sole proprietorships)

Industry	SMEs		Of which small enterprises		Large enterprises		Total	
	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total
Mining and quarrying of stone and gravel	12	100.0	11	91.7	0	0.0	12	100.0
Construction	9,494	100.0	9,427	99.3	0	0.0	9,494	100.0
Manufacturing	7,811	100.0	7,633	97.7	0	0.0	7,811	100.0
Electricity, gas, heat supply and water	0	-	0	-	0	-	0	100.0
Information and communications	71	100.0	66	93.0	0	0.0	71	100.0
Transport and postal activities	494	100.0	480	97.2	0	0.0	494	100.0
Wholesale and retail trade	27,171	99.6	18,543	68.0	107	0.4	27,278	100.0
Wholesale trade	3,761	100.0	3,225	85.7	0	0.0	3,761	100.0
Retail trade	23,410	99.5	15,318	65.1	107	0.5	23,517	100.0
Finance and insurance	282	100.0	282	100.0	0	0.0	282	100.0
Real estate and goods rental and leasing	5,242	100.0	5,211	99.4	0	0.0	5,242	100.0
Scientific research, professional and technical services	10,917	98.3	7,115	64.0	193	1.7	11,110	100.0
Accommodations, eating and drinking services	13,213	99.8	10,319	77.9	27	0.2	13,240	100.0
Living-related and personal services and amusement services	7,512	99.7	6,758	89.7	20	0.3	7,532	100.0
Education, learning support	1,527	99.9	1,003	65.6	2	0.1	1,529	100.0
Medical, health care and welfare	27,881	97.4	11,881	41.5	732	2.6	28,613	100.0
Compound services	108	100.0	106	98.1	0	0.0	108	100.0
Services (not elsewhere classified)	2,622	100.0	2,318	88.4	0	0.0	2,622	100.0
Non-primary industry total	114,356	99.1	81,156	70.3	1,081	0.9	115,437	100.0

Source: Recompiled from MIC, METI, *2012 Economic Census for Business Activity.*

Notes:
1. The figures are those of during 2011.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.
6. Industries are classified according to the October 2013 revised system of industry classification. Assume as of August 2015.

Table 6 Number of enterprises by prefecture and size (private, non-primary industry, 2009, 2012 and 2014)

(1) Number of enterprises (Number of companies + sole proprietorships)

		SMEs		Of which small enterprises		Large enterprises		Total	
Prefecture	Year	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Hokkaido	2009	166,961	99.8	144,616	86.4	322	0.2	167,283	100.0
	2012	153,790	99.8	133,263	86.5	263	0.2	154,053	100.0
	2014	151,123	99.8	128,686	85.0	279	0.2	151,402	100.0
Aomori	2009	47,954	99.9	42,458	88.4	63	0.1	48,017	100.0
	2012	42,669	99.9	37,427	87.6	50	0.1	42,719	100.0
	2014	41,863	99.9	36,319	86.6	52	0.1	41,915	100.0
Iwate	2009	44,388	99.8	39,125	88.0	67	0.2	44,455	100.0
	2012	38,711	99.8	33,837	87.3	68	0.2	38,779	100.0
	2014	38,665	99.8	33,263	85.9	72	0.2	38,737	100.0
Miyagi	2009	71,928	99.8	62,968	87.3	163	0.2	72,091	100.0
	2012	59,565	99.8	51,274	85.9	135	0.2	59,700	100.0
	2014	61,685	99.8	52,151	84.4	134	0.3	61,819	100.0
Akita	2009	39,925	99.9	35,612	89.1	39	0.1	39,964	100.0
	2012	36,304	99.9	32,087	88.3	30	0.1	36,334	100.0
	2014	35,098	99.9	30,666	87.3	32	0.1	35,130	100.0
Yamagata	2009	45,799	99.9	40,797	88.9	67	0.1	45,866	100.0
	2012	42,277	99.9	37,527	88.6	62	0.1	42,339	100.0
	2014	40,874	99.8	35,940	87.8	64	0.2	40,938	100.0
Fukushima	2009	71,625	99.9	63,603	88.7	85	0.1	71,710	100.0
	2012	61,887	99.9	54,804	88.4	75	0.1	61,962	100.0
	2014	61,566	99.9	53,545	86.9	70	0.1	61,636	100.0
Ibaraki	2009	92,823	99.9	82,363	88.7	84	0.1	92,907	100.0
	2012	85,709	99.9	75,833	88.4	81	0.1	85,790	100.0
	2014	84,268	99.9	73,717	87.4	93	0.1	84,361	100.0
Tochigi	2009	70,736	99.9	63,025	89.0	102	0.1	70,838	100.0
	2012	65,262	99.8	57,961	88.7	100	0.2	65,362	100.0
	2014	63,516	99.8	55,713	87.6	99	0.2	63,615	100.0
Gunma	2009	77,225	99.9	68,904	89.1	105	0.1	77,330	100.0
	2012	70,660	99.9	62,703	88.6	94	0.1	70,754	100.0
	2014	68,792	99.9	60,220	87.4	97	0.2	68,889	100.0
Saitama	2009	186,837	99.9	166,118	88.8	269	0.1	187,106	100.0
	2012	174,574	99.9	153,792	88.0	242	0.1	174,816	100.0
	2014	172,182	99.9	149,751	86.8	253	0.2	172,435	100.0
Chiba	2009	139,283	99.8	122,003	87.4	265	0.2	139,548	100.0
	2012	129,722	99.8	112,831	86.8	242	0.2	129,964	100.0
	2014	128,900	99.8	110,411	85.5	226	0.2	129,126	100.0
Tokyo	2009	487,729	99.1	408,714	83.0	4,662	0.9	492,391	100.0
	2012	442,952	99.1	369,710	82.7	4,161	0.9	447,113	100.0
	2014	447,659	99.0	364,265	80.6	4,538	1.2	452,197	100.0
Kanagawa	2009	216,503	99.7	187,674	86.4	600	0.3	217,103	100.0
	2012	200,146	99.7	172,717	86.1	544	0.3	200,690	100.0
	2014	199,958	99.7	169,491	84.5	572	0.3	200,530	100.0
Niigata	2009	89,770	99.8	79,305	88.2	162	0.2	89,932	100.0
	2012	83,509	99.8	73,654	88.1	135	0.2	83,644	100.0
	2014	80,499	99.8	70,248	87.1	146	0.2	80,645	100.0
Toyama	2009	41,351	99.8	36,176	87.3	96	0.2	41,447	100.0
	2012	37,772	99.8	32,835	86.7	84	0.2	37,856	100.0
	2014	36,686	99.8	31,505	85.7	90	0.3	36,776	100.0
Ishikawa	2009	47,286	99.8	41,828	88.3	111	0.2	47,397	100.0
	2012	43,834	99.8	38,627	87.9	88	0.2	43,922	100.0
	2014	42,807	99.8	37,193	86.7	88	0.2	42,895	100.0
Fukui	2009	34,167	99.9	30,404	88.9	45	0.1	34,212	100.0
	2012	31,429	99.9	27,816	88.4	43	0.1	31,472	100.0
	2014	30,626	99.9	26,711	87.1	43	0.2	30,669	100.0
Yamanashi	2009	36,555	99.9	33,023	90.2	48	0.1	36,603	100.0
	2012	33,291	99.9	29,922	89.8	41	0.1	33,332	100.0
	2014	32,485	99.9	28,906	88.9	38	0.1	32,523	100.0
Nagano	2009	85,783	99.8	77,032	89.6	161	0.2	85,944	100.0
	2012	78,580	99.8	70,414	89.5	124	0.2	78,704	100.0
	2014	77,326	99.8	68,597	88.6	130	0.2	77,456	100.0
Gifu	2009	82,601	99.9	73,266	88.6	101	0.1	82,702	100.0
	2012	76,432	99.9	67,372	88.0	97	0.1	76,529	100.0
	2014	74,446	99.9	64,763	86.9	96	0.1	74,542	100.0
Shizuoka	2009	140,136	99.8	123,807	88.2	234	0.2	140,370	100.0
	2012	130,085	99.8	114,366	87.8	210	0.2	130,295	100.0
	2014	127,440	99.8	111,010	87.0	203	0.2	127,643	100.0
Aichi	2009	240,809	99.7	206,323	85.4	715	0.3	241,524	100.0
	2012	223,698	99.7	189,829	84.6	645	0.3	224,343	100.0
	2014	220,767	99.7	183,800	83.0	644	0.4	221,411	100.0
Mie	2009	60,504	99.8	53,210	87.8	91	0.2	60,595	100.0
	2012	55,694	99.8	48,614	87.1	97	0.2	55,791	100.0
	2014	54,826	99.8	47,246	86.0	85	0.2	54,911	100.0

		SMEs		Of which small enterprises		Large enterprises		Total	
Prefecture	Year	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Shiga	2009	39,165	99.8	34,238	87.3	70	0.2	39,235	100.0
	2012	36,824	99.8	31,999	86.7	69	0.2	36,893	100.0
	2014	36,520	99.8	31,225	85.4	60	0.2	36,580	100.0
Kyoto	2009	94,994	99.8	83,700	87.9	187	0.2	95,181	100.0
	2012	86,119	99.8	75,334	87.3	171	0.2	86,290	100.0
	2014	84,702	99.8	73,047	86.0	194	0.3	84,896	100.0
Osaka	2009	326,793	99.6	282,486	86.1	1,240	0.4	328,033	100.0
	2012	298,381	99.6	256,293	85.6	1,065	0.4	299,446	100.0
	2014	292,993	99.6	246,927	84.0	1,106	0.4	294,099	100.0
Hyogo	2009	169,036	99.8	147,417	87.0	313	0.2	169,349	100.0
	2012	154,765	99.8	134,163	86.5	296	0.2	155,061	100.0
	2014	154,646	99.8	132,006	85.2	303	0.2	154,949	100.0
Nara	2009	36,092	99.9	31,810	88.1	28	0.1	36,120	100.0
	2012	33,106	99.9	28,888	87.2	27	0.1	33,133	100.0
	2014	33,296	99.9	28,749	86.3	27	0.1	33,323	100.0
Wakayama	2009	40,708	99.9	36,693	90.1	31	0.1	40,739	100.0
	2012	37,613	99.9	33,715	89.6	30	0.1	37,643	100.0
	2014	36,270	99.9	32,099	88.4	26	0.1	36,296	100.0
Tottori	2009	18,882	99.8	16,539	87.4	32	0.2	18,914	100.0
	2012	17,489	99.8	15,228	86.9	29	0.2	17,518	100.0
	2014	17,118	99.9	14,709	85.8	25	0.2	17,143	100.0
Shimane	2009	26,319	99.9	23,308	88.5	29	0.1	26,348	100.0
	2012	24,256	99.9	21,405	88.2	22	0.1	24,278	100.0
	2014	23,542	99.9	20,508	87.0	21	0.1	23,563	100.0
Okayama	2009	60,144	99.8	52,355	86.9	108	0.2	60,252	100.0
	2012	56,272	99.8	48,694	86.4	90	0.2	56,362	100.0
	2014	55,224	99.8	47,004	85.0	98	0.2	55,322	100.0
Hiroshima	2009	96,627	99.8	83,949	86.7	182	0.2	96,809	100.0
	2012	89,204	99.8	77,158	86.3	162	0.2	89,366	100.0
	2014	87,414	99.8	74,540	85.1	164	0.2	87,578	100.0
Yamaguchi	2009	46,307	99.9	40,315	86.9	67	0.1	46,374	100.0
	2012	42,172	99.9	36,535	86.5	56	0.1	42,228	100.0
	2014	40,991	99.9	35,091	85.5	49	0.1	41,040	100.0
Tokushima	2009	29,939	99.9	26,933	89.9	30	0.1	29,969	100.0
	2012	27,490	99.9	24,567	89.3	24	0.1	27,514	100.0
	2014	26,911	99.9	23,816	88.4	25	0.1	26,936	100.0
Kagawa	2009	36,329	99.8	32,004	87.9	63	0.2	36,392	100.0
	2012	33,467	99.8	29,388	87.7	58	0.2	33,525	100.0
	2014	32,743	99.8	28,357	86.4	62	0.2	32,805	100.0
Ehime	2009	50,945	99.8	45,108	88.4	91	0.2	51,036	100.0
	2012	46,905	99.8	41,333	88.0	79	0.2	46,984	100.0
	2014	45,899	99.8	40,008	87.0	76	0.2	45,975	100.0
Kochi	2009	29,548	99.9	26,615	90.0	27	0.1	29,575	100.0
	2012	26,970	99.9	24,116	89.3	27	0.1	26,997	100.0
	2014	26,373	99.9	23,326	88.4	26	0.1	26,399	100.0
Fukuoka	2009	154,699	99.8	132,668	85.5	384	0.2	155,083	100.0
	2012	142,502	99.8	121,401	85.0	333	0.2	142,835	100.0
	2014	143,058	99.8	119,666	83.4	350	0.3	143,408	100.0
Saga	2009	27,907	99.9	24,316	87.0	38	0.1	27,945	100.0
	2012	25,957	99.9	22,447	86.4	34	0.1	25,991	100.0
	2014	25,521	99.9	21,819	85.4	34	0.2	25,555	100.0
Nagasaki	2009	48,638	99.9	42,825	88.0	48	0.1	48,686	100.0
	2012	44,687	99.9	39,157	87.5	43	0.1	44,730	100.0
	2014	43,745	99.9	37,851	86.4	49	0.1	43,794	100.0
Kumamoto	2009	57,348	99.9	50,057	87.2	82	0.1	57,430	100.0
	2012	53,370	99.9	46,424	86.9	70	0.1	53,440	100.0
	2014	52,730	99.9	45,321	85.8	65	0.1	52,795	100.0
Oita	2009	40,390	99.9	35,200	87.0	50	0.1	40,440	100.0
	2012	37,257	99.9	32,489	87.1	46	0.1	37,303	100.0
	2014	36,687	99.9	31,580	86.0	42	0.1	36,729	100.0
Miyazaki	2009	40,008	99.9	35,465	88.5	44	0.1	40,052	100.0
	2012	37,491	99.9	33,048	88.1	37	0.1	37,528	100.0
	2014	36,909	99.9	32,074	86.8	35	0.1	36,944	100.0
Kagoshima	2009	58,110	99.9	51,728	88.9	59	0.1	58,169	100.0
	2012	53,680	99.9	47,567	88.5	56	0.1	53,736	100.0
	2014	52,721	99.9	46,155	87.5	56	0.1	52,777	100.0
Okinawa	2009	53,658	99.9	47,278	88.0	66	0.1	53,724	100.0
	2012	48,405	99.9	42,250	87.2	61	0.1	48,466	100.0
	2014	49,158	99.9	42,259	85.8	73	0.2	49,231	100.0
Total	2009	4,201,264	99.7	3,665,361	87.0	11,926	0.3	4,213,190	100.0
	2012	3,852,934	99.7	3,342,814	86.5	10,596	0.3	3,863,530	100.0
	2014	3,809,228	99.7	3,252,254	85.1	11,110	0.3	3,820,338	100.0

Sources: MIC, *2009 and 2014 Economic Census for Business Frame*; Recompiled from MIC, METI, *2012 Economic Census for Business Activity*.

Notes:
1. The figures are those as of July 2009 for 2009, as of February 2012 for 2012, and as of July 2014 for 2014.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.
6. Direct comparisons should not be made between the present findings and results obtained from the *Establishment and Enterprise Census* published in the supplementary statistical data for past *White Papers on SMEs* as the *Economic Census for Business Frame* (1) captures a greater range of business establishments and enterprises due to its use of commercial and corporate registers and other administrative records, and (2) it surveys enterprises and establishments en bloc by having head offices report information on their branches and other operations.

Table 7 Total number of workers by prefecture and size (private, non-primary industry, 2009, 2012 and 2014)

(1) Total number of workers (workers of companies + sole proprietorships)

		SMEs		Of which small enterprises		Large enterprises		Total	
Prefecture	Year	Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total
Hokkaido	2009	1,314,664	85.0	511,195	33.1	231,184	15.0	1,545,848	100.0
	2012	1,239,770	85.2	473,607	32.5	215,677	14.8	1,455,447	100.0
	2014	1,265,958	84.8	442,912	29.7	226,966	15.2	1,492,924	100.0
Aomori	2009	329,064	89.7	138,979	37.9	37,930	10.3	366,994	100.0
	2012	315,974	91.1	126,730	36.5	30,826	8.9	346,800	100.0
	2014	318,762	91.4	118,692	34.0	29,993	8.6	348,755	100.0
Iwate	2009	313,486	88.9	128,828	36.5	39,004	11.1	352,490	100.0
	2012	291,444	88.1	116,904	35.3	39,469	11.9	330,913	100.0
	2014	305,956	88.5	112,193	32.4	39,934	11.5	345,890	100.0
Miyagi	2009	544,448	84.1	218,884	33.8	102,743	15.9	647,191	100.0
	2012	496,876	85.1	186,263	31.9	86,865	14.9	583,741	100.0
	2014	532,834	85.1	185,735	29.7	93,375	14.9	626,209	100.0
Akita	2009	266,194	92.6	116,652	40.6	21,287	7.4	287,481	100.0
	2012	257,810	93.0	107,062	38.6	19,550	7.0	277,360	100.0
	2014	254,609	92.4	99,745	36.2	20,888	7.6	275,497	100.0
Yamagata	2009	309,894	87.8	132,899	37.6	43,214	12.2	353,108	100.0
	2012	299,042	87.8	126,881	37.2	41,600	12.2	340,642	100.0
	2014	299,260	90.2	117,848	35.5	32,676	9.8	331,936	100.0
Fukushima	2009	509,056	86.3	219,869	37.3	80,541	13.7	589,597	100.0
	2012	464,549	84.4	196,195	35.7	85,757	15.6	550,306	100.0
	2014	481,870	86.2	187,353	33.5	76,829	13.8	558,699	100.0
Ibaraki	2009	662,740	89.0	296,114	39.7	82,246	11.0	744,986	100.0
	2012	645,167	87.9	279,979	38.1	89,096	12.1	734,263	100.0
	2014	643,250	87.8	263,090	35.9	89,201	12.2	732,451	100.0
Tochigi	2009	473,458	84.9	218,554	39.2	83,917	15.1	557,375	100.0
	2012	456,329	85.6	205,063	38.5	76,753	14.4	533,082	100.0
	2014	472,300	86.8	192,721	35.4	71,988	13.2	544,288	100.0
Gunma	2009	531,102	79.6	234,254	35.1	135,882	20.4	666,984	100.0
	2012	524,067	80.7	218,953	33.7	125,349	19.3	649,416	100.0
	2014	522,228	81.8	204,507	32.1	115,856	18.2	638,084	100.0
Saitama	2009	1,333,167	79.5	585,066	34.9	344,258	20.5	1,677,425	100.0
	2012	1,343,724	80.8	551,382	33.1	319,890	19.2	1,663,614	100.0
	2014	1,405,272	80.9	527,337	30.4	331,961	19.1	1,737,233	100.0
Chiba	2009	1,004,977	74.5	433,540	32.2	343,511	25.5	1,348,488	100.0
	2012	989,855	76.6	405,375	31.4	301,852	23.4	1,291,707	100.0
	2014	1,025,489	78.3	384,721	29.4	284,051	21.7	1,309,540	100.0
Tokyo	2009	5,125,495	39.9	1,474,647	11.5	7,720,434	60.1	12,845,929	100.0
	2012	5,020,049	41.1	1,339,578	11.0	7,203,532	58.9	12,223,581	100.0
	2014	5,758,435	43.0	1,291,889	9.7	7,628,071	57.0	13,386,506	100.0
Kanagawa	2009	1,731,229	75.1	669,693	29.1	573,365	24.9	2,304,594	100.0
	2012	1,691,858	75.8	624,235	28.0	538,941	24.2	2,230,799	100.0
	2014	1,787,764	75.3	593,870	25.0	586,833	24.7	2,374,597	100.0
Niigata	2009	662,629	85.7	271,438	35.1	110,550	14.3	773,179	100.0
	2012	636,313	85.2	257,821	34.5	110,347	14.8	746,660	100.0
	2014	632,252	84.2	240,714	32.0	118,867	15.8	751,119	100.0
Toyama	2009	321,732	82.4	127,658	32.7	68,685	17.6	390,417	100.0
	2012	314,353	83.6	119,834	31.9	61,624	16.4	375,977	100.0
	2014	313,878	83.1	111,447	29.5	63,757	16.9	377,635	100.0
Ishikawa	2009	343,597	86.3	144,415	36.3	54,652	13.7	398,249	100.0
	2012	337,105	87.4	135,976	35.2	48,786	12.6	385,891	100.0
	2014	343,676	88.6	127,138	32.8	44,417	11.4	388,093	100.0
Fukui	2009	249,438	90.0	109,299	39.4	27,716	10.0	277,154	100.0
	2012	236,882	88.9	102,583	38.5	29,534	11.1	266,416	100.0
	2014	237,607	89.6	94,688	35.7	27,636	10.4	265,243	100.0
Yamanashi	2009	228,834	90.7	110,474	43.8	23,423	9.3	252,257	100.0
	2012	225,984	91.7	104,991	42.6	20,385	8.3	246,369	100.0
	2014	219,479	90.8	96,891	40.1	22,167	9.2	241,646	100.0
Nagano	2009	577,938	86.0	255,409	38.0	93,788	14.0	671,726	100.0
	2012	558,105	87.1	240,438	37.5	82,519	12.9	640,624	100.0
	2014	556,251	86.3	226,338	35.1	88,029	13.7	644,280	100.0
Gifu	2009	592,421	87.6	256,411	37.9	84,217	12.4	676,638	100.0
	2012	581,708	86.9	241,353	36.0	87,968	13.1	669,676	100.0
	2014	580,043	86.0	224,817	33.3	94,514	14.0	674,557	100.0
Shizuoka	2009	1,033,316	83.2	430,726	34.7	208,878	16.8	1,242,194	100.0
	2012	1,013,362	82.9	404,404	33.1	209,359	17.1	1,222,721	100.0
	2014	1,016,324	83.5	378,926	31.1	201,364	16.5	1,217,688	100.0
Aichi	2009	2,159,764	69.6	758,505	24.4	945,573	30.4	3,105,337	100.0
	2012	2,145,708	70.4	710,849	23.3	901,449	29.6	3,047,157	100.0
	2014	2,265,083	71.3	672,037	21.2	912,383	28.7	3,177,466	100.0
Mie	2009	441,126	86.7	186,657	36.7	67,865	13.3	508,991	100.0
	2012	422,517	86.5	174,970	35.8	66,198	13.5	488,715	100.0
	2014	428,825	88.7	166,076	34.3	54,863	11.3	483,688	100.0

Prefecture	Year	SMEs		Of which small enterprises		Large enterprises		Total	
		Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total	Total no. of workers	% of total
Shiga	2009	296,986	84.2	121,545	34.5	55,738	15.8	352,724	100.0
	2012	294,729	83.8	116,725	33.2	57,110	16.2	351,839	100.0
	2014	297,596	85.2	108,748	31.1	51,722	14.8	349,318	100.0
Kyoto	2009	700,598	75.6	287,107	31.0	226,096	24.4	926,694	100.0
	2012	669,626	76.2	265,382	30.2	209,098	23.8	878,724	100.0
	2014	684,206	76.3	247,761	27.6	213,001	23.7	897,207	100.0
Osaka	2009	2,849,073	64.6	1,018,568	23.1	1,560,332	35.4	4,409,405	100.0
	2012	2,726,933	66.4	930,059	22.7	1,378,261	33.6	4,105,194	100.0
	2014	2,876,197	67.4	876,170	20.5	1,391,018	32.6	4,267,215	100.0
Hyogo	2009	1,296,524	82.7	510,022	32.5	271,784	17.3	1,568,308	100.0
	2012	1,237,175	81.0	476,572	31.2	290,982	19.0	1,528,157	100.0
	2014	1,270,454	84.0	447,374	29.6	242,206	16.0	1,512,660	100.0
Nara	2009	250,013	94.5	112,791	42.6	14,589	5.5	264,602	100.0
	2012	238,798	94.6	104,373	41.3	13,657	5.4	252,455	100.0
	2014	244,225	94.4	99,679	38.5	14,487	5.6	258,712	100.0
Wakayama	2009	236,690	87.2	117,663	43.4	34,724	12.8	271,414	100.0
	2012	234,374	87.9	112,595	42.2	32,178	12.1	266,552	100.0
	2014	235,859	91.9	103,461	40.3	20,890	8.1	256,749	100.0
Tottori	2009	137,727	93.5	56,369	38.3	9,635	6.5	147,362	100.0
	2012	133,930	93.8	53,535	37.5	8,780	6.2	142,710	100.0
	2014	134,974	95.7	50,336	35.7	6,113	4.3	141,087	100.0
Shimane	2009	181,169	92.0	79,307	40.3	15,764	8.0	196,933	100.0
	2012	174,303	93.0	74,892	40.0	13,068	7.0	187,371	100.0
	2014	174,127	92.7	69,663	37.1	13,760	7.3	187,887	100.0
Okayama	2009	480,376	85.2	188,061	33.4	83,136	14.8	563,512	100.0
	2012	476,216	85.4	177,127	31.8	81,613	14.6	557,829	100.0
	2014	484,797	83.9	166,571	28.8	93,173	16.1	577,970	100.0
Hiroshima	2009	796,119	78.1	297,157	29.2	223,003	21.9	1,019,122	100.0
	2012	778,091	78.6	276,394	27.9	212,012	21.4	990,103	100.0
	2014	786,462	78.3	258,835	25.8	218,293	21.7	1,004,755	100.0
Yamaguchi	2009	345,119	84.1	138,488	33.7	65,345	15.9	410,464	100.0
	2012	327,843	82.1	128,914	32.3	71,590	17.9	399,433	100.0
	2014	323,489	83.8	120,419	31.2	62,459	16.2	385,948	100.0
Tokushima	2009	188,642	91.3	89,261	43.2	17,881	8.7	206,523	100.0
	2012	179,253	91.0	83,018	42.2	17,636	9.0	196,889	100.0
	2014	175,154	88.6	77,770	39.3	22,507	11.4	197,661	100.0
Kagawa	2009	272,062	81.7	109,009	32.7	61,063	18.3	333,125	100.0
	2012	262,737	81.9	102,806	32.0	58,258	18.1	320,995	100.0
	2014	268,159	83.0	96,760	29.9	54,944	17.0	323,103	100.0
Ehime	2009	367,025	84.1	157,356	36.0	69,496	15.9	436,521	100.0
	2012	358,323	85.9	148,503	35.6	58,995	14.1	417,318	100.0
	2014	350,127	87.1	138,161	34.4	51,860	12.9	401,987	100.0
Kochi	2009	178,494	92.7	83,643	43.4	14,053	7.3	192,547	100.0
	2012	173,073	92.7	79,056	42.4	13,590	7.3	186,663	100.0
	2014	173,284	89.1	73,800	37.9	21,273	10.9	194,557	100.0
Fukuoka	2009	1,316,246	77.1	471,476	27.6	390,593	22.9	1,706,839	100.0
	2012	1,258,259	75.1	439,151	26.2	416,289	24.9	1,674,548	100.0
	2014	1,305,475	79.0	419,767	25.4	346,490	21.0	1,651,965	100.0
Saga	2009	196,175	90.9	83,798	38.8	19,625	9.1	215,800	100.0
	2012	195,939	92.3	79,823	37.6	16,283	7.7	212,222	100.0
	2014	193,854	90.8	74,634	34.9	19,755	9.2	213,609	100.0
Nagasaki	2009	323,704	92.6	141,592	40.5	26,001	7.4	349,705	100.0
	2012	313,435	92.5	133,663	39.4	25,521	7.5	338,956	100.0
	2014	313,811	92.8	124,624	36.9	24,354	7.2	338,165	100.0
Kumamoto	2009	404,952	90.4	173,099	38.6	42,912	9.6	447,864	100.0
	2012	396,851	90.9	164,961	37.8	39,601	9.1	436,452	100.0
	2014	401,899	91.5	155,783	35.5	37,282	8.5	439,181	100.0
Oita	2009	289,808	85.4	120,652	35.5	49,589	14.6	339,397	100.0
	2012	275,070	85.4	114,227	35.5	46,951	14.6	322,021	100.0
	2014	278,516	85.8	107,513	33.1	46,240	14.2	324,756	100.0
Miyazaki	2009	258,175	91.7	116,535	41.4	23,260	8.3	281,435	100.0
	2012	253,075	92.4	110,666	40.4	20,819	7.6	273,894	100.0
	2014	257,285	93.5	103,638	37.7	17,955	6.5	275,240	100.0
Kagoshima	2009	385,476	89.0	172,089	39.7	47,672	11.0	433,148	100.0
	2012	372,363	87.3	165,215	38.7	54,098	12.7	426,461	100.0
	2014	373,417	88.2	155,737	36.8	50,139	11.8	423,556	100.0
Okinawa	2009	333,607	88.9	141,544	37.7	41,693	11.1	375,300	100.0
	2012	328,537	88.7	134,197	36.2	41,743	11.3	370,280	100.0
	2014	339,038	87.3	129,677	33.4	49,112	12.7	388,150	100.0
Total	2009	33,144,529	69.0	12,817,298	26.7	14,888,847	31.0	48,033,376	100.0
	2012	32,167,484	69.7	11,923,280	25.8	13,971,459	30.3	46,138,943	100.0
	2014	33,609,810	70.1	11,268,566	23.5	14,325,652	29.9	47,935,462	100.0

Sources: MIC, *2009 and 2014 Economic Census for Business Frame*; Recompiled from MIC, METI, *2012 Economic Census for Business Activity*.

Notes:
1. The figures are those as of July 2009 for 2009, as of February 2012 for 2012, and as of July 2014 for 2014.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.
6. Direct comparisons should not be made between the present findings and results obtained from the *Establishment and Enterprise Census* published in the supplementary statistical data for past *White Papers on SMEs* as the *Economic Census for Business Frame* (1) captures a greater range of business establishments and enterprises due to its use of commercial and corporate registers and other administrative records, and (2) it surveys enterprises and establishments en bloc by having head offices report information on their branches and other operations.

Table 8 Number of regular employees by prefecture and size (private, non-primary industry, 2009, 2012 and 2014)

(1) Number of regular employees (regular employees of companies + sole proprietorships)

		SMEs		Of which small enterprises		Large enterprises		Total	
Prefecture	Year	No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total
Hokkaido	2009	966,211	81.5	253,915	21.4	218,841	18.5	1,185,052	100.0
	2012	923,865	81.3	236,012	20.8	212,832	18.7	1,136,697	100.0
	2014	986,910	81.7	236,699	19.6	221,276	18.3	1,208,186	100.0
Aomori	2009	236,939	86.5	66,536	24.3	37,089	13.5	274,028	100.0
	2012	230,889	88.6	59,884	23.0	29,758	11.4	260,647	100.0
	2014	244,072	89.3	60,858	22.3	29,298	10.7	273,370	100.0
Iwate	2009	228,889	85.7	63,288	23.7	38,043	14.3	266,932	100.0
	2012	216,030	84.9	58,870	23.1	38,349	15.1	254,379	100.0
	2014	237,831	85.9	60,267	21.8	39,086	14.1	276,917	100.0
Miyagi	2009	400,100	80.3	106,009	21.3	98,208	19.7	498,308	100.0
	2012	373,632	81.6	92,294	20.2	84,373	18.4	458,005	100.0
	2014	416,479	82.0	98,492	19.4	91,244	18.0	507,723	100.0
Akita	2009	191,790	90.3	56,221	26.5	20,648	9.7	212,438	100.0
	2012	189,262	90.3	51,850	24.7	20,256	9.7	209,518	100.0
	2014	194,177	90.5	52,323	24.4	20,332	9.5	214,509	100.0
Yamagata	2009	223,150	81.7	62,781	23.0	49,863	18.3	273,013	100.0
	2012	217,061	81.7	60,718	22.9	48,603	18.3	265,664	100.0
	2014	227,040	85.3	60,350	22.7	39,205	14.7	266,245	100.0
Fukushima	2009	367,870	82.6	107,620	24.2	77,410	17.4	445,280	100.0
	2012	352,162	81.4	96,323	22.3	80,209	18.6	432,371	100.0
	2014	379,288	83.8	98,686	21.8	73,247	16.2	452,535	100.0
Ibaraki	2009	478,699	88.3	147,709	27.2	63,666	11.7	542,365	100.0
	2012	471,948	83.5	140,718	24.9	93,341	16.5	565,289	100.0
	2014	491,046	84.7	141,134	24.4	88,523	15.3	579,569	100.0
Tochigi	2009	335,236	80.6	106,453	25.6	80,744	19.4	415,980	100.0
	2012	329,322	81.1	101,482	25.0	76,837	18.9	406,159	100.0
	2014	356,846	83.3	100,961	23.6	71,491	16.7	428,337	100.0
Gunma	2009	380,372	74.6	112,899	22.1	129,340	25.4	509,712	100.0
	2012	381,225	75.0	105,469	20.7	127,086	25.0	508,311	100.0
	2014	398,398	77.8	106,323	20.8	113,682	22.2	512,080	100.0
Saitama	2009	970,395	73.6	293,187	22.2	348,832	26.4	1,319,227	100.0
	2012	1,003,505	74.5	281,375	20.9	343,679	25.5	1,347,184	100.0
	2014	1,086,987	78.8	279,438	20.3	292,372	21.2	1,379,359	100.0
Chiba	2009	723,122	68.7	212,778	20.2	329,909	31.3	1,053,031	100.0
	2012	724,129	69.0	200,342	19.1	325,506	31.0	1,049,635	100.0
	2014	781,459	74.0	200,799	19.0	274,337	26.0	1,055,796	100.0
Tokyo	2009	4,071,212	34.6	745,482	6.3	7,691,472	65.4	11,762,684	100.0
	2012	4,033,546	35.3	679,268	5.9	7,397,361	64.7	11,430,907	100.0
	2014	4,817,898	39.0	684,311	5.5	7,524,907	61.0	12,342,805	100.0
Kanagawa	2009	1,293,093	71.0	332,872	18.3	527,730	29.0	1,820,823	100.0
	2012	1,267,644	65.1	310,565	15.9	679,889	34.9	1,947,533	100.0
	2014	1,404,473	70.2	311,030	15.5	597,108	29.8	2,001,581	100.0
Niigata	2009	489,886	82.5	138,779	23.4	103,740	17.5	593,626	100.0
	2012	473,325	83.2	131,433	23.1	95,826	16.8	569,151	100.0
	2014	487,353	82.4	129,584	21.9	104,062	17.6	591,415	100.0
Toyama	2009	241,154	78.3	65,888	21.4	67,018	21.7	308,172	100.0
	2012	239,673	78.9	62,023	20.4	64,205	21.1	303,878	100.0
	2014	247,854	79.5	61,487	19.7	63,965	20.5	311,819	100.0
Ishikawa	2009	250,564	82.5	71,674	23.6	53,116	17.5	303,680	100.0
	2012	249,998	83.5	67,527	22.5	49,534	16.5	299,532	100.0
	2014	265,946	85.5	66,588	21.4	45,216	14.5	311,162	100.0
Fukui	2009	180,122	87.2	54,733	26.5	26,400	12.8	206,522	100.0
	2012	173,266	85.4	51,146	25.2	29,517	14.6	202,783	100.0
	2014	182,289	86.9	50,511	24.1	27,520	13.1	209,809	100.0
Yamanashi	2009	155,937	87.1	51,296	28.6	23,171	12.9	179,108	100.0
	2012	156,529	88.2	49,229	27.7	20,887	11.8	177,416	100.0
	2014	161,153	88.1	48,998	26.8	21,758	11.9	182,911	100.0
Nagano	2009	430,044	82.7	120,125	23.1	90,164	17.3	520,208	100.0
	2012	401,337	81.4	113,072	22.9	91,725	18.6	493,062	100.0
	2014	415,655	82.9	113,992	22.7	85,788	17.1	501,443	100.0
Gifu	2009	432,677	82.9	127,838	24.5	89,061	17.1	521,738	100.0
	2012	426,124	82.0	118,512	22.8	93,396	18.0	519,520	100.0
	2014	449,673	82.6	117,652	21.6	94,947	17.4	544,620	100.0
Shizuoka	2009	761,142	77.9	218,474	22.4	215,562	22.1	976,704	100.0
	2012	760,496	77.2	204,792	20.8	224,055	22.8	984,551	100.0
	2014	798,008	79.6	201,179	20.1	205,090	20.4	1,003,098	100.0
Aichi	2009	1,660,063	64.1	392,952	15.2	929,959	35.9	2,590,022	100.0
	2012	1,687,234	64.3	371,457	14.2	935,133	35.7	2,622,367	100.0
	2014	1,842,707	66.1	366,180	13.1	944,133	33.9	2,786,840	100.0
Mie	2009	322,221	84.2	91,956	24.0	60,440	15.8	382,661	100.0
	2012	312,691	81.0	87,479	22.7	73,510	19.0	386,201	100.0
	2014	327,362	86.9	86,261	22.9	49,252	13.1	376,614	100.0

		SMEs		Of which small enterprises		Large enterprises		Total	
Prefecture	Year	No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total	No. of regular employees	% of total
Shiga	2009	212,179	79.6	56,910	21.4	54,253	20.4	266,432	100.0
	2012	218,733	78.2	56,090	20.1	60,920	21.8	279,653	100.0
	2014	226,504	81.6	55,319	19.9	50,941	18.4	277,445	100.0
Kyoto	2009	504,179	69.0	135,282	18.5	226,126	31.0	730,305	100.0
	2012	491,624	67.2	126,376	17.3	239,992	32.8	731,616	100.0
	2014	522,455	71.2	122,973	16.8	210,843	28.8	733,298	100.0
Osaka	2009	2,185,427	59.4	513,720	14.0	1,492,357	40.6	3,677,784	100.0
	2012	2,123,465	61.1	467,900	13.5	1,353,985	38.9	3,477,450	100.0
	2014	2,301,988	62.7	464,876	12.7	1,367,457	37.3	3,669,445	100.0
Hyogo	2009	956,816	78.2	249,117	20.4	267,240	21.8	1,224,056	100.0
	2012	931,899	73.6	231,196	18.3	334,475	26.4	1,266,374	100.0
	2014	985,666	79.3	232,379	18.7	257,606	20.7	1,243,272	100.0
Nara	2009	173,845	92.2	52,092	27.6	14,752	7.8	188,597	100.0
	2012	170,593	91.6	48,090	25.8	15,602	8.4	186,195	100.0
	2014	180,094	91.6	48,790	24.8	16,465	8.4	196,559	100.0
Wakayama	2009	160,558	83.5	54,309	28.3	31,615	16.5	192,173	100.0
	2012	161,879	84.5	52,039	27.2	29,790	15.5	191,669	100.0
	2014	171,875	89.2	51,313	26.6	20,724	10.8	192,599	100.0
Tottori	2009	101,289	90.3	28,324	25.2	10,909	9.7	112,198	100.0
	2012	100,189	92.1	26,827	24.7	8,624	7.9	108,813	100.0
	2014	104,335	94.6	26,663	24.2	5,989	5.4	110,324	100.0
Shimane	2009	129,426	89.4	40,104	27.7	15,339	10.6	144,765	100.0
	2012	126,597	90.9	38,036	27.3	12,739	9.1	139,336	100.0
	2014	131,013	90.7	36,988	25.6	13,475	9.3	144,488	100.0
Okayama	2009	357,230	82.3	94,098	21.7	77,019	17.7	434,249	100.0
	2012	362,191	82.6	89,068	20.3	76,348	17.4	438,539	100.0
	2014	380,130	80.7	88,570	18.8	90,976	19.3	471,106	100.0
Hiroshima	2009	599,619	72.5	150,803	18.2	227,920	27.5	827,539	100.0
	2012	602,577	74.0	141,588	17.4	211,693	26.0	814,270	100.0
	2014	626,190	74.5	138,214	16.5	214,007	25.5	840,197	100.0
Yamaguchi	2009	259,029	82.3	70,028	22.2	55,725	17.7	314,754	100.0
	2012	245,113	77.6	64,756	20.5	70,818	22.4	315,931	100.0
	2014	249,653	80.1	64,614	20.7	62,050	19.9	311,703	100.0
Tokushima	2009	126,733	87.7	40,292	27.9	17,717	12.3	144,450	100.0
	2012	124,366	87.8	38,182	26.9	17,331	12.2	141,697	100.0
	2014	125,736	84.8	37,518	25.3	22,562	15.2	148,298	100.0
Kagawa	2009	199,879	77.2	53,201	20.5	59,127	22.8	259,006	100.0
	2012	195,992	77.5	50,907	20.1	56,822	22.5	252,814	100.0
	2014	207,448	79.5	49,946	19.1	53,374	20.5	260,822	100.0
Ehime	2009	264,822	80.0	76,778	23.2	66,384	20.0	331,206	100.0
	2012	262,219	81.6	72,262	22.5	59,101	18.4	321,320	100.0
	2014	265,849	84.1	71,404	22.6	50,092	15.9	315,941	100.0
Kochi	2009	122,557	89.9	38,150	28.0	13,717	10.1	136,274	100.0
	2012	120,993	90.1	36,876	27.4	13,368	9.9	134,361	100.0
	2014	126,135	85.6	36,088	24.5	21,158	14.4	147,293	100.0
Fukuoka	2009	989,236	72.3	233,402	17.1	378,448	27.7	1,367,684	100.0
	2012	957,528	69.4	216,356	15.7	421,784	30.6	1,379,312	100.0
	2014	1,031,005	75.3	219,993	16.1	338,340	24.7	1,369,345	100.0
Saga	2009	143,449	88.2	42,349	26.0	19,187	11.8	162,636	100.0
	2012	144,032	90.1	39,699	24.8	15,829	9.9	159,861	100.0
	2014	147,849	87.7	39,276	23.3	20,729	12.3	168,578	100.0
Nagasaki	2009	234,432	90.5	70,515	27.2	24,608	9.5	259,040	100.0
	2012	226,267	88.8	65,764	25.8	28,473	11.2	254,740	100.0
	2014	237,619	89.9	65,119	24.6	26,557	10.1	264,176	100.0
Kumamoto	2009	286,827	87.4	85,200	26.0	41,288	12.6	328,115	100.0
	2012	288,192	88.2	80,751	24.7	38,566	11.8	326,758	100.0
	2014	304,595	89.4	81,005	23.8	36,247	10.6	340,842	100.0
Oita	2009	211,073	81.4	59,489	22.9	48,276	18.6	259,349	100.0
	2012	200,994	81.2	55,766	22.5	46,563	18.8	247,557	100.0
	2014	213,163	82.5	56,459	21.9	45,116	17.5	258,279	100.0
Miyazaki	2009	183,925	89.7	56,539	27.6	21,080	10.3	205,005	100.0
	2012	180,865	90.6	53,031	26.6	18,837	9.4	199,702	100.0
	2014	192,633	92.5	52,792	25.3	15,685	7.5	208,318	100.0
Kagoshima	2009	270,697	85.5	81,197	25.7	45,777	14.5	316,474	100.0
	2012	263,337	85.7	77,467	25.2	43,995	14.3	307,332	100.0
	2014	274,510	87.1	78,383	24.9	40,785	12.9	315,295	100.0
Okinawa	2009	240,579	85.7	68,231	24.3	40,286	14.3	280,865	100.0
	2012	236,083	85.4	64,684	23.4	40,461	14.6	276,544	100.0
	2014	259,327	84.5	67,832	22.1	47,570	15.5	306,897	100.0
Total	2009	24,704,694	62.8	6,351,595	16.2	14,619,576	37.2	39,324,270	100.0
	2012	24,330,621	62.7	5,925,551	15.3	14,451,983	37.3	38,782,604	100.0
	2014	26,466,676	65.2	5,920,617	14.6	14,146,587	34.8	40,613,263	100.0

Sources: MIC, *2009 and 2014 Economic Census for Business Frame*; Recompiled from MIC, METI, *2012 Economic Census for Business Activity*.

Notes:
1. The figures are those as of July 2009 for 2009, as of February 2012 for 2012, and as of July 2014 for 2014.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.
6. Direct comparisons should not be made between the present findings and results obtained from the *Establishment and Enterprise Census* published in the supplementary statistical data for past *White Papers on SMEs* as the *Economic Census for Business Frame* (1) captures a greater range of business establishments and enterprises due to its use of commercial and corporate registers and other administrative records, and (2) it surveys enterprises and establishments en bloc by having head offices report information on their branches and other operations.

Table 9 Value added by prefecture and size (private, non-primary industry, 2011)

(1) Enterprises (value added of companies and sole proprietorships)

	SMEs		Of which small enterprises		Large enterprises		Total	
Prefecture	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total
Hokkaido	36,261	80.7	12,197	27.1	8,690	19.3	44,951	100.0
Aomori	9,203	87.0	2,554	24.1	1,380	13.0	10,583	100.0
Iwate	7,731	83.6	2,540	27.5	1,514	16.4	9,245	100.0
Miyagi	15,933	80.1	4,753	23.9	3,968	19.9	19,901	100.0
Akita	6,900	90.4	2,274	29.8	730	9.6	7,629	100.0
Yamagata	8,903	79.6	2,954	26.4	2,282	20.4	11,185	100.0
Fukushima	12,726	81.4	4,428	28.3	2,902	18.6	15,628	100.0
Ibaraki	20,262	82.6	7,286	29.7	4,257	17.4	24,519	100.0
Tochigi	15,370	79.9	5,567	28.9	3,866	20.1	19,236	100.0
Gunma	17,958	74.1	5,896	24.3	6,277	25.9	24,234	100.0
Saitama	43,861	74.8	15,601	26.6	14,803	25.2	58,665	100.0
Chiba	30,980	65.7	10,994	23.3	16,185	34.3	47,165	100.0
Tokyo	246,828	30.4	53,205	6.6	564,791	69.6	811,618	100.0
Kanagawa	58,217	63.5	18,256	19.9	33,392	36.5	91,609	100.0
Niigata	19,718	80.8	6,265	25.7	4,680	19.2	24,398	100.0
Toyama	10,563	71.3	3,404	23.0	4,255	28.7	14,818	100.0
Ishikawa	10,592	80.5	3,480	26.4	2,568	19.5	13,160	100.0
Fukui	7,569	81.5	2,581	27.8	1,718	18.5	9,287	100.0
Yamanashi	6,875	67.6	2,556	25.1	3,296	32.4	10,171	100.0
Nagano	18,227	79.9	5,894	25.8	4,580	20.1	22,806	100.0
Gifu	20,230	84.9	7,070	29.7	3,596	15.1	23,826	100.0
Shizuoka	33,815	72.2	11,242	24.0	13,021	27.8	46,836	100.0
Aichi	81,128	62.2	21,846	16.7	49,346	37.8	130,474	100.0
Mie	13,127	78.3	4,546	27.1	3,648	21.7	16,775	100.0
Shiga	9,587	77.1	2,987	24.0	2,840	22.9	12,426	100.0
Kyoto	20,501	62.7	6,332	19.4	12,175	37.3	32,676	100.0
Osaka	103,862	51.4	29,026	14.4	98,095	48.6	201,957	100.0
Hyogo	42,259	72.3	13,256	22.7	16,192	27.7	58,450	100.0
Nara	7,089	90.2	2,771	35.3	768	9.8	7,857	100.0
Wakayama	7,022	88.3	2,662	33.5	930	11.7	7,951	100.0
Tottori	3,756	91.7	1,207	29.5	340	8.3	4,096	100.0
Shimane	4,997	86.6	1,721	29.8	776	13.4	5,772	100.0
Okayama	16,008	79.7	4,742	23.6	4,071	20.3	20,079	100.0
Hiroshima	26,493	72.5	7,754	21.2	10,063	27.5	36,555	100.0
Yamaguchi	10,117	70.3	3,208	22.3	4,277	29.7	14,393	100.0
Tokushima	5,030	79.6	1,809	28.6	1,290	20.4	6,321	100.0
Kagawa	8,086	66.6	2,515	20.7	4,058	33.4	12,144	100.0
Ehime	11,089	75.7	3,361	23.0	3,551	24.3	14,640	100.0
Kochi	4,950	90.2	1,667	30.4	536	9.8	5,486	100.0
Fukuoka	39,785	69.8	10,958	19.2	17,223	30.2	57,008	100.0
Saga	5,430	89.0	1,789	29.3	669	11.0	6,098	100.0
Nagasaki	8,487	85.5	2,940	29.6	1,438	14.5	9,925	100.0
Kumamoto	11,286	82.5	3,801	27.8	2,399	17.5	13,686	100.0
Oita	8,425	85.7	2,935	29.8	1,409	14.3	9,834	100.0
Miyazaki	6,732	87.5	2,363	30.7	963	12.5	7,695	100.0
Kagoshima	9,982	84.8	3,741	31.8	1,784	15.2	11,766	100.0
Okinawa	8,018	82.9	2,513	26.0	1,649	17.1	9,667	100.0
Total	1,131,964	54.5	333,443	16.1	943,240	45.5	2,075,204	100.0

(2) Companies only (value added of companies)

Prefecture	SMEs		Of which small enterprises		Large enterprises		Total	
	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total
Hokkaido	32,931	79.1	9,672	23.2	8,685	20.9	41,616	100.0
Aomori	7,911	85.2	1,714	18.5	1,378	14.8	9,289	100.0
Iwate	6,437	81.0	1,630	20.5	1,514	19.0	7,951	100.0
Miyagi	14,124	78.1	3,524	19.5	3,966	21.9	18,091	100.0
Akita	5,771	88.8	1,460	22.5	729	11.2	6,501	100.0
Yamagata	7,551	76.8	1,945	19.8	2,282	23.2	9,833	100.0
Fukushima	11,189	79.4	3,234	23.0	2,901	20.6	14,090	100.0
Ibaraki	17,290	80.3	5,018	23.3	4,252	19.7	21,542	100.0
Tochigi	13,518	77.8	4,208	24.2	3,857	22.2	17,374	100.0
Gunma	15,939	71.8	4,401	19.8	6,266	28.2	22,205	100.0
Saitama	39,139	72.6	12,277	22.8	14,774	27.4	53,913	100.0
Chiba	27,317	62.9	8,471	19.5	16,137	37.1	43,455	100.0
Tokyo	236,262	29.5	46,067	5.8	564,496	70.5	800,758	100.0
Kanagawa	53,011	61.4	14,819	17.2	33,337	38.6	86,348	100.0
Niigata	17,279	78.7	4,377	19.9	4,678	21.3	21,958	100.0
Toyama	9,183	68.4	2,378	17.7	4,236	31.6	13,419	100.0
Ishikawa	9,237	78.3	2,416	20.5	2,567	21.7	11,804	100.0
Fukui	6,609	79.4	1,840	22.1	1,716	20.6	8,325	100.0
Yamanashi	5,754	63.6	1,697	18.8	3,295	36.4	9,050	100.0
Nagano	16,132	77.9	4,285	20.7	4,580	22.1	20,711	100.0
Gifu	17,703	83.2	5,255	24.7	3,582	16.8	21,285	100.0
Shizuoka	29,603	69.5	8,087	19.0	12,999	30.5	42,602	100.0
Aichi	73,313	59.8	16,785	13.7	49,284	40.2	122,598	100.0
Mie	11,187	75.7	3,209	21.7	3,592	24.3	14,780	100.0
Shiga	8,201	74.3	1,954	17.7	2,837	25.7	11,038	100.0
Kyoto	17,902	59.6	4,517	15.0	12,130	40.4	30,033	100.0
Osaka	94,396	49.1	22,485	11.7	98,014	50.9	192,410	100.0
Hyogo	36,765	69.6	9,502	18.0	16,071	30.4	52,836	100.0
Nara	5,578	88.0	1,693	26.7	763	12.0	6,341	100.0
Wakayama	5,573	85.7	1,568	24.1	927	14.3	6,499	100.0
Tottori	3,277	90.6	848	23.4	340	9.4	3,617	100.0
Shimane	4,231	84.5	1,119	22.3	776	15.5	5,007	100.0
Okayama	14,540	78.1	3,676	19.8	4,070	21.9	18,610	100.0
Hiroshima	23,652	70.2	5,693	16.9	10,043	29.8	33,695	100.0
Yamaguchi	8,902	67.6	2,329	17.7	4,269	32.4	13,171	100.0
Tokushima	4,399	77.3	1,299	22.8	1,290	22.7	5,689	100.0
Kagawa	7,287	64.3	1,915	16.9	4,053	35.7	11,340	100.0
Ehime	9,945	73.7	2,466	18.3	3,551	26.3	13,495	100.0
Kochi	4,208	88.7	1,112	23.5	535	11.3	4,742	100.0
Fukuoka	35,067	67.1	7,775	14.9	17,156	32.9	52,223	100.0
Saga	4,418	87.4	1,090	21.6	639	12.6	5,057	100.0
Nagasaki	6,934	83.1	1,818	21.8	1,412	16.9	8,347	100.0
Kumamoto	9,768	80.4	2,692	22.2	2,385	19.6	12,154	100.0
Oita	7,472	84.1	2,236	25.2	1,409	15.9	8,881	100.0
Miyazaki	5,592	85.4	1,554	23.7	958	14.6	6,551	100.0
Kagoshima	8,543	82.8	2,656	25.7	1,778	17.2	10,321	100.0
Okinawa	6,566	79.9	1,520	18.5	1,649	20.1	8,215	100.0
Total	1,017,608	51.9	252,288	12.9	942,159	48.1	1,959,767	100.0

(3) Sole proprietorships only (value added of sole proprietorships)

	SMEs		Of which small enterprises		Large enterprises		Total	
Prefecture	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total	Value added (¥100million)	% of total
Hokkaido	3,330	99.9	2,525	75.7	5	0.1	3,335	100.0
Aomori	1,292	99.8	840	64.9	2	0.2	1,294	100.0
Iwate	1,293	99.9	910	70.3	1	0.1	1,294	100.0
Miyagi	1,808	99.9	1,228	67.9	2	0.1	1,810	100.0
Akita	1,128	100.0	814	72.1	0	0.0	1,129	100.0
Yamagata	1,352	100.0	1,009	74.6	0	0.0	1,352	100.0
Fukushima	1,537	100.0	1,194	77.7	1	0.0	1,538	100.0
Ibaraki	2,972	99.8	2,268	76.2	5	0.2	2,977	100.0
Tochigi	1,853	99.5	1,360	73.0	9	0.5	1,862	100.0
Gunma	2,018	99.5	1,495	73.7	11	0.5	2,029	100.0
Saitama	4,722	99.4	3,324	70.0	29	0.6	4,751	100.0
Chiba	3,662	98.7	2,524	68.0	48	1.3	3,710	100.0
Tokyo	10,566	97.3	7,138	65.7	295	2.7	10,861	100.0
Kanagawa	5,206	98.9	3,437	65.3	56	1.1	5,262	100.0
Niigata	2,438	99.9	1,887	77.3	2	0.1	2,440	100.0
Toyama	1,380	98.7	1,026	73.3	19	1.3	1,399	100.0
Ishikawa	1,355	99.9	1,063	78.4	1	0.1	1,356	100.0
Fukui	959	99.7	741	77.0	3	0.3	962	100.0
Yamanashi	1,121	100.0	859	76.6	1	0.0	1,122	100.0
Nagano	2,095	100.0	1,609	76.8	0	0.0	2,095	100.0
Gifu	2,526	99.4	1,814	71.4	15	0.6	2,541	100.0
Shizuoka	4,212	99.5	3,155	74.5	22	0.5	4,234	100.0
Aichi	7,815	99.2	5,061	64.3	62	0.8	7,876	100.0
Mie	1,940	97.2	1,336	67.0	56	2.8	1,996	100.0
Shiga	1,385	99.8	1,032	74.4	3	0.2	1,388	100.0
Kyoto	2,598	98.3	1,815	68.7	45	1.7	2,643	100.0
Osaka	9,466	99.1	6,541	68.5	82	0.9	9,547	100.0
Hyogo	5,493	97.9	3,754	66.9	121	2.1	5,614	100.0
Nara	1,511	99.6	1,078	71.1	5	0.4	1,516	100.0
Wakayama	1,449	99.8	1,094	75.3	3	0.2	1,452	100.0
Tottori	479	100.0	359	74.9	0	0.0	479	100.0
Shimane	766	100.0	602	78.7	0	0.0	766	100.0
Okayama	1,467	99.9	1,067	72.6	1	0.1	1,468	100.0
Hiroshima	2,841	99.3	2,060	72.0	19	0.7	2,860	100.0
Yamaguchi	1,215	99.4	879	71.9	8	0.6	1,223	100.0
Tokushima	631	100.0	510	80.8	0	0.0	631	100.0
Kagawa	800	99.4	600	74.7	4	0.6	804	100.0
Ehime	1,144	100.0	895	78.2	0	0.0	1,144	100.0
Kochi	743	99.8	554	74.5	1	0.2	744	100.0
Fukuoka	4,718	98.6	3,184	66.5	66	1.4	4,785	100.0
Saga	1,012	97.2	699	67.1	29	2.8	1,042	100.0
Nagasaki	1,553	98.3	1,121	71.0	26	1.7	1,579	100.0
Kumamoto	1,518	99.1	1,109	72.4	14	0.9	1,532	100.0
Oita	953	100.0	699	73.3	0	0.0	953	100.0
Miyazaki	1,140	99.6	808	70.6	5	0.4	1,145	100.0
Kagoshima	1,439	99.6	1,085	75.1	6	0.4	1,445	100.0
Okinawa	1,452	100.0	993	68.4	0	0.0	1,452	100.0
Total	114,356	99.1	81,156	70.3	1,081	0.9	115,437	100.0

Sources: Recompiled from MIC, METI, *2012 Economic Census for Business Activity*.

Notes:
1. The figures are those of during 2011.
2. Corporate bodies other than companies and agriculture, forestry and fisheries are not included.
3. Enterprises are classified according to the Small and Medium-sized Enterprise Basic Act (Act No. 154 of 1963) (see introductory notes).
4. The classification of conditions in 3. includes the numbers of enterprises regarded as SMEs and small enterprises in laws and regulations concerning SMEs other than the Small and Medium-sized Enterprise Basic Act.
5. The percentages of the total for small enterprises indicate their proportion of the total number of enterprises.

Table 10 Trends in entry and exit rates (non-primary industries)

(1) Enterprises (sole proprietorships + corporate enterprises)

Year	Survey interval (months)	No. of enterprises at start of period	No. of entries	Entry survey period (months)	Increase in no. of enterprises	Annual average increase in no. of enterprises	Annual average no. of entries	Annual average no. of exits	Entry rate (%)	Exit rate (%)
75 - 78	37	4,682,092	681,775	29.5	355,485	115,292	277,332	162,040	5.9	3.5
78 - 81	36.5	5,037,577	739,996	30	318,925	104,852	295,998	191,146	5.9	3.8
81 - 86	60	5,356,502	1,039,351	54	72,096	14,419	230,967	216,548	4.3	4.0
86 - 91	60	5,428,598	853,991	54	-126,240	-25,248	189,776	215,024	3.5	4.0
91 - 96	63	5,302,358	967,779	81	-147,968	-28,184	143,375	171,559	2.7	3.2
96 - 99	33	5,154,390	507,531	33	-253,477	-92,173	184,557	288,147	3.6	5.6
99 - 01	27	4,900,913	638,289	27	-160,984	-71,548	283,684	334,755	5.8	6.8
As of 2001 (1993 classification)		4,739,929								
01 - 04	32	4,739,635	447,148	32	-360,347	-135,130	167,681	289,731	3.5	6.1
04 - 06	28	4,379,288	518,671	28	-138,962	-59,555	222,288	273,282	5.1	6.2
As of 2006 (2002 classification)		4,240,326								
09 - 12	31	4,252,897	154,998	31	-359,541	-139,177	59,999	260,177	1.4	6.1
12 - 14	29	3,891,356	436,037	29	-43,122	-17,844	180,429	236,671	4.6	6.1

(2) Corporate enterprises (independent establishments and head offices, not including branches)

Year	Survey interval (months)	No. of corporate enterprises at start of period	No. of entries	Entry survey period (months)	Increase in no. of corporate enterprises	Annual average increase in no. of corporate enterprises	Annual average no. of entries	Annual average no. of exits	Entry rate (%)	Exit rate (%)
75 - 78	37	921,768	113,039	29.5	118,905	38,564	45,982	7,418	5.0	0.8
78 - 81	36.5	1,040,673	139,678	30	138,146	45,418	55,871	10,453	5.4	1.0
81 - 86	60	1,178,819	234,223	54	143,689	28,738	52,050	23,312	4.4	2.0
86 - 91	60	1,322,508	266,717	54	230,506	46,101	59,270	13,169	4.5	1.0
91 - 96	63	1,553,014	310,761	81	112,167	21,365	46,039	24,674	3.0	1.6
96 - 99	33	1,665,181	174,728	33	-6,801	-2,473	63,537	87,773	3.8	5.3
99 - 01	27	1,658,380	226,701	27	-50,570	-22,476	100,756	105,414	6.1	6.4
As of 2001 (1993 classification)		1,607,810								
01 - 04	32	1,607,648	155,161	32	-87,661	-32,873	58,185	88,739	3.6	5.5
04 - 06	28	1,519,987	197,819	28	-14,768	-6,329	84,780	83,972	5.6	5.5
As of 2006 (2002 classification)		1,505,219								
09 - 12	31	1,787,027	55,010	31	-100,375	-38,855	21,294	100,359	1.2	5.6
12 - 14	29	1,686,652	228,084	29	44,136	18,263	94,380	96,337	5.6	5.7

(3) Sole proprietorships (independent establishments, head offices and branches)

Year	Survey interval (months)	No. of sole proprietorships at start of period	No. of entries	Entry survey period (months)	Increase in no. of sole proprietorships	Annual average increase in no. of sole proprietorships	Annual average no. of entries	Annual average no. of exits	Entry rate (%)	Exit rate (%)
75 - 78	37	3,760,324	568,736	29.5	236,580	76,729	231,350	154,622	6.2	4.1
78 - 81	36.5	3,996,904	600,318	30	180,779	59,434	240,127	180,693	6.0	4.5
81 - 86	60	4,177,683	805,128	54	-71,593	-14,319	178,917	193,236	4.3	4.6
86 - 91	60	4,106,090	587,274	54	-356,746	-71,349	130,505	201,855	3.2	4.9
91 - 96	63	3,749,344	657,018	81	-260,135	-49,550	97,336	146,886	2.6	3.9
96 - 99	33	3,489,209	332,803	33	-246,676	-89,700	121,019	200,374	3.5	5.7
99 - 01	27	3,242,533	411,588	27	-110,414	-49,073	182,928	229,341	5.6	7.1
As of 2001 (1993 classification)		3,132,119								
01 - 04	32	3,131,987	291,987	32	-272,686	-102,257	109,495	200,991	3.5	6.4
04 - 06	28	2,859,301	320,852	28	-124,194	-53,226	137,508	189,310	4.8	6.6
As of 2006 (2002 classification)		2,735,107								
09 - 12	31	2,465,870	99,988	31	-261,166	-101,097	38,705	159,817	1.6	6.5
12 - 14	29	2,204,704	207,953	29	-87,258	-36,107	86,050	140,333	3.9	6.4

(4) Business establishments

Year	Survey interval (months)	No. of business establishments at start of period	No. of entries	Entry survey period (months)	Increase in no. of business establishments	Annual average increase in no. of business establishments	Annual average no. of entries	Annual average no. of exits	Entry rate (%)	Exit rate (%)
66 - 69	36	4,230,738	964,474	42	419,757	139,919	275,564	135,645	6.5	3.2
69 - 72	38	4,650,495	863,915	32	463,228	146,283	323,968	177,686	7.0	3.8
72 - 75	32.5	5,113,723	744,865	28.5	275,577	101,752	313,627	211,876	6.1	4.1
75 - 78	37	5,389,300	818,730	29.5	460,021	149,196	333,043	183,847	6.2	3.4
78 - 81	36.5	5,849,321	896,325	30	419,750	138,000	358,530	220,530	6.1	3.8
81 - 86	60	6,269,071	1,324,318	54	225,270	45,054	294,293	249,239	4.7	4.0
86 - 89	36	6,494,341	826,723	36	127,905	42,635	275,574	232,939	4.2	3.6
89 - 91	24	6,622,246	406,977	18	-80,505	-40,253	271,318	311,571	4.1	4.7
91 - 94	33.7	6,541,741	846,139	33.7	-9,761	-3,476	301,296	305,774	4.6	4.7
94 - 96	29.3	6,531,980	418,613	21	-29,056	-11,900	239,207	251,107	3.7	3.8
96 - 99	33	6,502,924	740,389	33	-318,095	-115,671	269,232	384,884	4.1	5.9
99 - 01	27	6,184,829	937,122	27	-65,768	-29,230	416,499	445,636	6.7	7.2
As of 2001 (1993 classification)		6,119,061								
01 - 04	32	6,118,721	691,029	32	-408,747	-153,280	259,136	392,019	4.2	6.4
04 - 06	28	5,709,974	846,368	28	-7,193	-3,083	362,729	369,309	6.4	6.5
As of 2006 (2002 classification)		5,702,781								
09 - 12	31	5,853,886	286,166	31	-430,968	-166,826	110,774	366,483	1.9	6.3
12 - 14	29	5,422,918	854,205	29	85,894	35,542	354,706	359,395	6.5	6.6

Sources: MIC, *Establishment and Enterprise Census* (untill 2006); *2009 Economic Census for Business Frame*; *2012 Economic Census for Business Activity*; *2014 Economic Census for Business Frame*.

Notes:
1. Here, entry rate refers to the ratio of "(1) the annual average number of business establishments (or enterprises) that were newly established" during a certain period to "(2) the number of business establishments (or enterprises) that already existed at the start of the period," and is obtained as (1)/(2). Exit rate similarly refers to the ratio of "(1) the annual average number of business establishments (or enterprises) that went out of business" during a certain term to "(2) the number of business establishments (or enterprises) that already existed at the start of the period," and is obtained as (1)/(2).
2. The numbers of entries and exits shown in Table 10 (1) and (2) were calculated by adding the numbers of independent establishments and head offices that have been newly established (or gone out of business), among business establishments that belong to a company.
3. The numbers of sole proprietorships that entered (exited) the market shown in Table 10 (1) and (3) were calculated by adding the numbers of business establishments that belong to a sole proprietor.
4. The number of business establishments that entered (exited) the market shown in Table 10 (4) is based on published value (see Reference 1.).
5. Unlike the numbers of enterprises shown in "Supplementary statistical data Table 1 (2) Number of companies" above, this table includes business establishments that are branch offices of sole proprietorships, and is based on a different method of industrial classification. Thus, the figures do not match the numbers of enterprises at the beginning of the period shown in (1) above.

References: 1. Survey results are quoted from: *Volume 1 Result of Establishments for Japan Table 7* for the 1999 survey; *Special Result concerning Changes and Conversions in Establishments for Japan (2) State of Changes in 1999-2001 Table 8* for the 2001 Survey; *Volume 1 Result of Establishments for Japan Table 10* for the 2004 survey; *Result of Establishment for Japan Table 46* for the 2006 Survey; *Result of Establishment for Japan: Industry cross-cutting results Table 32* of the 2012; and *Result of Establishment for Japan Table 32* for the 2014 Survey.
2. The number of entries in 1994-1996 is the number of business establishments established in and after 1995.
3. This survey was conducted as the *Establishment Census* until 1991, *Establishment Directory Maintenance* in 1989, and the *Establishment Directory Maintenance Survey* in 1994.
4. The classification of industries as of 2004 and as of 2006 is according to MIC, *Japan Standard Industrial Classification* (revised March 2002). Similarly, the classification of industries as of 2009 and 2012 is according to the *Japan Standard Industrial Classification* (revised November 2007), and the classification as of 2014 is according to the *Japan Standard Industrial Classification* (revised October 2013).
5. As the revision of the *Japan Standard Industrial Classification* in March 2002 resulted in the transfer of some industry groups between primary and non-primary industries, the annual average entry and exit rates in 2001-04 were calculated based on the number of enterprises and business establishments at the beginning of the period under the new system of classification (same for revision in 2007).

Table 11 Trends in entry and exit rates by industry (based on number of business establishments, annual average)

(Unit: %)

	Year	66 - 69	69 - 72	72 - 75	75 - 78	78 - 81	81 - 86	86 - 89	89 - 91	91 - 94	94 - 96	96 - 99	99 - 01	01 - 04	04 - 06	06 - 09	09 - 12	12 - 14
Non-primary industry total	Entry Rate	6.5	7.0	6.1	6.2	6.1	4.7	4.2	4.1	4.6	3.7	4.1	6.7	4.2	6.4	2.6	1.9	6.5
	Exit Rate	3.2	3.8	4.1	3.4	3.8	4.0	3.6	4.7	4.7	3.8	5.9	7.2	6.4	6.5	6.4	6.3	6.6
Manufacturing	Entry Rate	6.0	5.6	4.3	3.4	3.7	3.1	3.1	2.8	3.1	1.5	1.9	3.9	2.2	3.4	1.2	0.7	3.4
	Exit Rate	2.5	3.2	3.4	2.3	2.5	3.1	2.9	4.0	4.5	4.0	5.3	6.6	5.7	5.4	5.8	5.7	5.5
Wholesale trade	Entry Rate	6.5	8.1	8.0	6.8	6.4	5.1	4.8	3.2	5.0	3.3	4.9	6.6	3.9	5.6	2.1	1.3	6.2
	Exit Rate	6.5	3.8	5.3	3.7	3.8	3.7	4.1	3.2	5.0	5.3	7.4	7.5	7.0	6.4	6.6	5.9	6.8
Retail trade	Entry Rate	5.0	4.9	4.3	4.8	4.4	3.4	3.1	2.8	3.9	3.6	4.3	6.1	3.9	5.7	2.3	2.2	6.4
	Exit Rate	2.1	3.3	3.6	3.2	4.0	4.0	3.4	6.4	4.3	4.6	6.8	7.2	6.7	6.8	7.1	6.6	7.7
Services	Entry Rate	6.3	6.7	6.1	6.1	6.4	5.3	4.9	4.7	5.0	3.8	4.2	7.3	4.4	6.4	2.3	1.7	6.5
	Exit Rate	3.8	4.0	3.8	3.3	3.1	3.2	3.6	2.9	4.2	2.8	4.8	6.3	5.5	5.9	4.9	5.9	5.4

Sources: MIC, *Establishment and Enterprise Census* and *2009 Economic Census for Business Frame*; MIC, METI, *2012 Economic Census for Business Activity*; MIC, *2014 Economic Census for Business Frame*.

Notes:
1. Entry and exit rates for business establishments include openings and closures of branches and plants, and openings and closures due to moves.
2. Rates were calculated based on the *Establishment and Enterprise Census* up to 2006, and the *Economic Census for Business Frame* for the period 2006-09 and the *Economic Census for Business Activity* for the period 2009-12. This survey was conducted as the *Establishment Census* until 1991, *Establishment Directory Maintenance* in 1989, and the *Establishment Directory Maintenance Survey* in 1994.
3. See Table 10 regarding the method of calculation of the entry and exit rates.
4. Direct comparisons cannot be made between the figures for 2006-09 and past figures due to differing definitions of entering establishments. Direct comparisons between the entry rates and exit rates for 2006-09 are also not possible due to the different ways in which entering and exiting establishments are defined.
5. “Services” in 2001-04, 2004-06, 2006-09, and 2009-12 consists of “services (not otherwise classified).”
6. The annual average entry and exit rates for 2001-04 and 2004-06 were calculated based on the *Japan Standard Industrial Classification* (revised March 2002). The annual average entry and exit rates for 2006-09 and 2009-12 were calculated based on the *Japan Standard Industrial Classification* (revised November 2007), and the annual average entry and exit rates for 2012-2014 were calculated based on the *Japan Standard Industrial Classification* (revised October 2013).

Table 12 Trends in entry and exit rates based on business establishments with employees

(Unit: %)

FY	81	82	83	84	85	86	87	88	89	90	91	92	93
Entry rate	7.2	6.4	6.1	5.9	5.8	6.0	6.8	7.4	6.7	6.3	5.8	5.1	4.6
Exit rate	3.7	5.8	4.3	4.2	4.2	4.1	3.7	3.4	3.2	3.0	3.3	3.3	3.4

94	95	96	97	98	99	00	01	02	03	04	05	06
4.8	4.6	4.7	4.2	3.9	4.4	4.9	4.4	4.1	4.0	4.1	4.4	4.8
3.4	3.6	2.5	2.8	3.1	4.0	4.0	4.4	4.6	4.8	4.5	4.4	4.3

07	08	09	10	11	12	13	14	15	16
5.0	4.2	4.7	4.5	4.5	4.6	4.8	4.9	5.2	5.6
4.4	4.5	4.7	4.1	3.9	3.8	4.0	3.7	3.8	3.5

Source: MHLW, *Annual Report on Employment Insurance Programs*.

Notes:
1. Entry rate = Number of business establishments newly covered by employment insurance in fiscal year concerned / Number of business establishments covered by employment insurance at end of previous fiscal year × 100.
2. Exit rate = Number of business establishments that cease to be covered by employment insurance in fiscal year concerned / Number of business establishments covered by employment insurance at end of previous fiscal year × 100.
3. Business establishments covered by employment insurance are business establishments with established insurance status for labor insurance related to employment insurance (Article 5 of the Employment Insurance Law).

Table 13 Trends in number of incorporation registrations and company entry and exit rates

Year	55	56	57	58	59	60	61	62	63	64
No. of incorporation registrations	77,323	51,391	54,216	53,452	57,270	62,143	65,155	63,402	71,483	72,926
Company entry rate (%)	19.6	12.5	12.4	12.2	12.0	12.4	12.1	11.0	11.5	11.1
Company exit rate (%)	15.2	6.1	12.7	3.0	6.6	5.1	4.9	3.9	5.4	3.4

65	66	67	68	69	70	71	72	73	74
71,145	81,418	88,214	77,857	88,521	93,778	97,692	112,903	119,226	96,286
10.1	10.9	11.1	9.3	9.9	10.0	10.0	10.7	10.6	8.0
4.4	4.7	5.5	2.8	4.8	5.4	2.7	4.0	3.4	1.2

75	76	77	78	79	80	81	82	83	84
96,158	102,950	100,845	93,799	103,972	100,802	96,071	93,293	95,879	104,061
7.5	7.7	7.2	6.3	6.8	6.3	5.9	5.5	5.5	5.8
3.2	3.0	1.6	2.9	2.5	3.7	2.5	2.9	2.5	1.7

85	86	87	88	89	90	91	92	93	94
105,941	105,133	117,475	140,520	165,718	176,058	172,105	107,459	97,603	92,522
5.7	5.5	6.0	7.0	8.0	8.1	7.6	4.5	3.9	3.6
4.1	3.0	3.5	3.5	3.1	3.4	1.7	1.0	1.6	1.9

95	96	97	98	99	00	01	02	03	04
92,885	103,723	92,610	82,502	88,036	98,350	90,687	87,544	95,381	101,100
3.6	3.9	3.5	3.1	3.3	3.6	3.3	3.2	3.4	3.7
2.1	2.3	4.5	2.0	2.2	2.4	2.5	2.7	4.1	3.1

05	06	07	08	09	10	10 (*1)	11	12	13
103,545	115,178	101,981	92,097	86,016	87,916		89,664	91,942	96,659
3.7	4.1	3.6	3.2	3.0	3.4	3.1	3.5	3.6	3.8
3.1	3.4	2.7	3.2	3.1	4.2	3.8	3.7	3.5	3.5

14	15
106,644	111,238
4.2	4.3
3.5	3.4

Sources: MOJ, *Annual Report of Statistics on Civil Affairs, Litigation and Civil Liberties*; National Tax Agency, *National Tax Agency Annual Statistics Report*.

Notes:
1. Company entry rate = Number of incorporation registrations / Number of companies in previous year × 100.
2. Company exit rate = Company entry rate - Rate of increase. (=(number of companies in previous year + number of incorporation registrations - number of companies in current year) / number of companies in previous year × 100).
3. The number of incorporation registrations is from *Annual Registration Statistics* from 1955 to 1960, *Annual Report of Registration, Litigation and Civil Liberties* from 1961 to 1971, and *Annual Report of Statistics on Civil Affairs, Litigation and Civil Liberties* from 1972 onward.
4. The number of incorporation registrations is for each calendar year.
5. The numbers of companies in 1963 and 1964 are estimates based on the National Tax Agency's *Results of the Corporation Sample Survey*. The number of companies from 1967 includes cooperative associations.
6. The number of companies in the years before 2006 is the number of companies which completed the business year between February 1 of that year and January 31 of the following year. The number of companies from 2007 to 2009 is the number of companies as of June 30 of the following year. The number of companies in 2010 and afterwards is the number of corporate fiscal years for which income tax returns were filed, aggregated in units of companies. In order to achieve continuity with 2009 figures, for 2010 the rate of business entries and exits calculated with the number of companies defined as per the definition used for 2009 as the denominator is also shown. (*1)

Table 14 Outstanding lending to SMEs by type of financial institution

(Unit: ¥ trillion)

Financial institution \ Year / Month	2012				2013				2014			
	3	6	9	12	3	6	9	12	3	6	9	12
Domestically-licensed banks' banking accounts total	172.5	168.5	170.3	170.1	172.0	168.0	171.1	173.2	174.9	170.8	174.5	176.8
Domestically-licensed banks' trust accounts, etc.	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.7
Credit unions	41.3	40.7	41.1	41.0	40.9	40.4	40.9	41.3	41.2	40.8	41.6	42.1
Credit cooperatives	9.5	9.4	9.5	9.5	9.6	9.5	9.6	9.7	9.8	9.7	9.9	10.0
Private-sector financial institutions total	223.6	219.0	221.3	221.1	222.9	218.3	222.1	224.8	226.5	222.1	226.7	229.5
Private-sector financial institutions total (excluding trust accounts, etc.)	223.3	218.6	220.9	220.6	222.4	217.9	221.5	224.2	225.8	221.4	225.9	228.8
Shoko Chukin Bank	9.6	9.6	9.5	9.5	9.5	9.5	9.4	9.5	9.4	9.5	9.4	9.6
Japan Finance Corporation (Small and Medium Enterprise Unit)	6.4	6.4	6.4	6.5	6.5	6.4	6.4	6.4	6.3	6.3	6.3	6.2
Japan Finance Corporation (Micro Business and Individual Unit)	6.4	6.5	6.4	6.5	6.4	6.4	6.4	6.5	6.4	6.3	6.3	6.4
Government-affiliated financial institutions total	22.5	22.5	22.3	22.5	22.4	22.4	22.2	22.4	22.2	22.1	22.0	22.2
Total outstanding lending to SMEs	246.1	241.5	243.7	243.6	245.3	240.7	244.3	247.2	248.6	244.2	248.6	251.7
Total outstanding lending to SMEs (excluding trust accounts, etc.)	245.8	241.1	243.2	243.1	244.8	240.3	243.7	246.6	248.0	243.5	247.9	251.0

Financial institution \ Year / Month	2015				2016				2017			
	3	6	9	12	3	6	9	12	3	6	9	12
Domestically-licensed banks' banking accounts total	178.9	176.1	179.7	182.4	184.7	181.9	185.0	188.3	191.9	190.9	194.6	196.9
Domestically-licensed banks' trust accounts, etc.	0.8	0.9	1.0	1.1	1.2	1.2	1.4	1.4	1.7	1.6	1.6	1.6
Credit unions	41.9	41.5	42.3	42.8	42.7	42.4	43.3	44.0	43.9	43.7	44.8	45.3
Credit cooperatives	10.0	10.0	10.1	10.2	10.3	10.3	10.4	10.5	10.6	10.6	10.8	11.0
Private-sector financial institutions total	231.7	228.5	233.1	236.5	238.9	235.8	240.2	244.2	248.2	246.9	251.8	254.7
Private-sector financial institutions total (excluding trust accounts, etc.)	230.9	227.6	232.1	235.4	237.6	234.6	238.8	242.8	246.5	245.2	250.2	253.1
Shoko Chukin Bank	9.5	9.5	9.5	9.6	9.5	9.5	9.4	9.4	9.3	9.0	8.9	8.8
Japan Finance Corporation (Small and Medium Enterprise Unit)	6.2	6.1	6.1	6.0	5.9	5.9	5.8	5.8	5.7	5.7	5.6	5.6
Japan Finance Corporation (Micro Business and Individual Unit)	6.3	6.2	6.2	6.2	6.1	6.1	6.1	6.2	6.1	6.2	6.2	6.3
Government-affiliated financial institutions total	21.9	21.8	21.7	21.9	21.5	21.5	21.4	21.4	21.1	20.9	20.7	20.7
Total outstanding lending to SMEs	253.5	250.3	254.8	258.4	260.4	257.3	261.6	265.6	269.3	267.7	272.5	275.4
Total outstanding lending to SMEs (excluding trust accounts, etc.)	252.7	249.4	253.8	257.3	259.1	256.1	260.2	264.2	267.6	266.1	270.9	273.8

Source: Compiled by the SME Agency from sources including BOJ, *Financial and Economic Statistics Monthly*.

Notes:
1. Outstanding lending to SMEs through domestically-licensed banking accounts, trust accounts, etc. indicates lending to enterprises (corporate enterprises and sole proprietorships) with capital stock of ¥300 million or less (¥100 million or less in wholesale trade, ¥50 million or less in retail trade, eating and drinking places, and services) or 300 or fewer regular employees (100 or fewer in wholesale trade and services, 50 or fewer in retail trade and eating and drinking places).
2. Outstanding lending to SMEs by credit unions is total outstanding lending excluding lending to individuals, local governments, overseas yen loans and domestic loans transferred overseas.
3. Outstanding lending to SMEs by credit cooperatives is total outstanding lending including lending to individuals and local governments, etc.
4. Sources are as of the beginning of March 2018. Figures may be retroactively revised.

Table 15 SME management indices (fiscal 2016)

Industry	Financial indices							
	Return on asset (ROA)	Ratio of operating profit to total capital	Return on equity (ROE)	Ratio of gross margin to sales	Return on sales (ROS)	Ratio of ordinary profit to sales	SGA ratio	Total capital turnover
All industries	4.10	3.51	9.34	25.58	2.99	3.50	22.59	1.17
Construction	4.75	4.34	10.93	20.92	3.23	3.54	17.68	1.34
Manufacturing	4.46	3.87	8.56	21.97	3.67	4.23	18.30	1.05
Information and communications	5.75	5.17	9.19	44.85	4.97	5.53	39.88	1.04
Transport and postal activities	4.51	3.58	12.18	26.37	2.95	3.72	23.42	1.21
Wholesale trade	3.21	2.64	7.61	16.15	1.57	1.91	14.58	1.68
Retail trade	4.40	3.43	11.66	31.01	1.89	2.42	29.12	1.82
Real estate and goods rental and leasing	2.78	2.75	8.47	46.97	8.56	8.63	38.41	0.32
Scientific research, professional and technical services	6.88	5.94	12.47	49.17	7.52	8.71	41.65	0.79
Accommodations, eating and drinking services	2.53	1.52	14.91	64.55	1.54	2.56	63.01	0.99
Living-related and personal services and amusement services	3.92	2.92	8.33	30.75	2.27	3.04	28.48	1.29
Services (not elsewhere classified)	4.94	3.84	9.81	38.24	2.94	3.79	35.30	1.31

Industry	Current ratio	Fixed ratio	Equity ratio	Financial leverage	Debt to equity ratio (D/E)	Value-added ratio	Capital investment efficiency	Labor share
All industries	170.51	115.22	40.08	2.49	149.49	25.23	5.11	68.58
Construction	175.99	75.81	39.47	2.53	153.33	23.65	6.43	71.32
Manufacturing	188.87	96.15	45.56	2.20	119.51	29.63	3.32	70.52
Information and communications	265.99	63.99	58.60	1.71	70.64	42.32	8.55	73.23
Transport and postal activities	166.53	147.73	36.30	2.75	175.47	40.63	3.71	75.75
Wholesale trade	159.78	88.43	38.27	2.61	161.29	10.57	8.67	65.53
Retail trade	150.77	121.26	36.74	2.72	172.19	18.57	9.15	65.90
Real estate and goods rental and leasing	153.71	210.98	32.70	3.06	205.81	38.90	6.87	37.32
Scientific research, professional and technical services	191.69	95.02	55.73	1.79	79.43	48.77	12.01	71.05
Accommodations, eating and drinking services	108.57	509.80	14.40	6.94	594.33	46.00	10.13	69.14
Living-related and personal services and amusement services	113.80	201.44	33.99	2.94	194.23	23.24	5.00	54.44
Services (not elsewhere classified)	192.12	93.25	44.90	2.23	122.72	49.71	9.63	82.84

Source: SME Agency, *2017 Basic Survey of Small and Medium Enterprises (End-of-fiscal-year Results for Fiscal 2016)*.

Notes:
1. Calculation methods of each financial indices are as below:
   (1) Return on asset (ROA) = (Ordinary profit / Total assets (Total capital)) × 100
   (2) Ratio of operating profit to total capital = (Operating profit / Total assets (Total capital)) × 100
   (3) Return on equity (ROE) = (Net profit of current period / Net assets (Equity)) × 100
   (4) Ratio of gross margin to sales = (Gross margin / Sales) × 100
   (5) Return on sales (ROS) = (Operating profit / Sales) × 100
   (6) Ratio of ordinary profit to sales= (Ordinary profit / Sales) × 100
   (7) SGA ratio = (Selling and general administrative expenses / Sales) × 100
   (8) Total capital turnover = Sales / Total asset (Total capital)
   (9) Current ratio = (Liquid assets / Current liabilities) × 100
   (10) Fixed ratio = (Fixed assets / Net assets (Equity)) × 100
   (11) Equity ratio = (Net assets (Equity) / Total assets (Total capital)) × 100
   (12) Financial leverage = Total capital / Net assets (Equity)
   (13) Debt to equity ratio (D/E) = (Debt / Net assets (Equity)) × 100
   (14) Value-added ratio = (Value added / Sales) × 100
   * Value-added = Labor costs + Depreciation costs of cost of sales + Personnel costs + Rent + Depreciation costs of selling and general administrative expenses + Employee training costs + Taxes and public charges + Interest and discount expense + Ordinary profit
   (15) Capital investment efficiency = Value-added / Plant assets
   * Plant assets = Machinery and equipment + Ships and vessels, motor vehicles and transport equipment, industrial tools, appliances, and fixtures
   (16) Labor share = (Labor costs and Personnel costs / Value-added) × 100
   * Labor costs and Personnel costs = Labor costs + Personnel costs
2. These results are the results of estimates of a survey of conditions among SMEs (including sole proprietorships) belonging to the following divisions of industry according to the Japan Standard Industrial Classification: construction, manufacturing, information and communications, transport and postal activities (excluding certain industries), wholesale trade, retail trade, real estate and goods rental and leasing, scientific research, professional and technical services (excluding certain industries), accommodations, eating and drinking services, living-related and personal services and amusement services, services (not elsewhere classified) (excluding certain industries).
3. The number of enterprises in the parent population is the estimated figure as of August 2015 based on the *2012 Economic Census for Business Activity* taking into consideration entries, exits, and changes in size according to industry (medium group) and number of workers.

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