Corporate Investment Behavior and the Shortage of Skilled Workers—August 2004 Nissay Business Conditions Survey

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1. Introduction

After vigorously contributing since last year to the economic recovery, business fixed investment has slowed and now warrants close attention. Some observers believe that economic globalization and the growing focus on management performance have caused structural changes in corporate investment behavior. Meanwhile, companies recognize that job mobility and aging of skilled workers impede the transfer of production technology to a new generation of employees, and their response to this matter is also of great concern.

To examine recent trends in business fixed investment and skilled workers, the latest Nissay Business Conditions survey (conducted in August jointly by Nippon Life Insurance Co., Nissay Leasing Co., and NLI Research Institute) asked 2,564 companies nationwide their opinions on these issues.

With regard to fixed investment, the results indicate that compared to the late 1990s, more emphasis is put on business expansion and growth potential, and on internal financing of investment with cash flow; investment is entirely self-financed at 40% of companies. In addition, stricter customer standards have elevated the importance of skilled workers, with 44% of companies reporting a shortage of skilled workers.

2. Fewer Companies Plan to Invest in Fiscal 2004

In the April-June 2004 quarter, nonresidential fixed investment grew at a healthy 1.2% sequential pace (according to the second preliminary GDP estimate). However, our survey results indicate a slight decline in companies that plan to invest—77.2% of companies plan to invest in fiscal 2004, compared to 78.7% who actually invested in fiscal 2003 (Figure 1). Still, this is a large improvement from our previous survey in February 2004, wherein 69.6% planned to invest. Similar patterns are seen by industry sector (manufacturing and non-manufacturing) and company size (large, second-tier, and small and medium).

Figure 1　Investment Activity (% of Companies)

(%)

	FY 2001 actual	FY 2002 actual	FY 2003 actual	FY 2004 estimate
All industries	***74.3***	***74.4***	***78.7***	***77.2***
Sector				
Manufacturing	***82.9***	***83.9***	***86.7***	***85.9***
Primary manufacturing	82.9	83.8	87.6	***86.3***
Secondary manufacturing	82.8	83.9	86.3	***85.7***
Non-manufacturing	***66.8***	***66.0***	***72.6***	***70.5***
Company size				
Large	93.8	91.6	95.1	***91.8***
2nd-tier	84.9	88.1	86.9	***86.5***
Small & medium	68.0	65.6	71.3	***69.7***

3. Main Objective is Replacement Investment

By industry (Figure 2), when fiscal 2003 actual investment is compared to fiscal 2004 planned investment, we see increases in textiles and apparels (79.5% to 88.6%), iron and steel (83.8% to 86.5%), transportation equipment (92.5% to 95.0%), and information services (72.7% to 81.8%). On the other hand, decreases are seen in mining, oil, ceramic and glass (90.6% to 83.0%), foods (91.5% to 88.5%), construction and installation (64.3% to 58.0%), and real estate (79.4% to 73.5%).

For fiscal 2004 planned investment, the primary objectives are: (1) replacement or maintenance of existing facilities (62.6%), (2) enhancement of productive or sales capacity (51.8%), and (3) labor saving or streamlining (28.3%). By industry, it is notable that in transportation equipment and publishing and printing, enhancement of productive or sales capacity is a higher priority than replacement investment.

Figure 2　Investment Activity, by Objective

(%)

	Companies that invested		Investment objectives (FY 2004 estimate, up to 2 responses)						
	FY 2003 actual	FY 2004 estimate	Boost capacity & sales	Improve products, services	Labor saving, stream-lining	Business diversi-fication	R&D	Replace, maintain capacity	Other
All industries	***78.7***	***77.2***	***51.8***	***12.4***	***28.3***	***3.3***	***8.4***	***62.6***	***5.0***
Manufacturing	***86.7***	***85.9***	***53.0***	***7.8***	***38.5***	***2.5***	***12.1***	***62.5***	***3.9***
Mining, oil, ceramic & glass	90.6	83.0	38.6	9.1	43.2	2.3	0.0	86.4	4.5
Textiles & apparels	79.5	88.6	51.3	7.7	30.8	10.3	2.6	66.7	2.6
Iron & steel	83.8	86.5	28.1	12.5	59.4	0.0	3.1	68.8	6.3
Chemicals	90.2	88.5	57.8	5.8	31.8	0.6	16.9	66.2	2.6
Foods	91.5	88.5	48.7	7.0	40.9	2.6	4.3	73.9	5.2
Transport equipment	92.5	95.0	63.2	5.3	47.4	2.6	11.8	50.0	5.3
Publishing & printing	80.6	83.3	63.3	6.7	43.3	0.0	0.0	60.0	3.3
Non-manufacturing	***72.6***	***70.5***	***50.5***	***17.2***	***18.8***	***3.9***	***4.7***	***63.0***	***6.0***
Construction & installation	64.3	58.0	30.8	9.2	24.6	4.6	16.9	64.6	7.7
Real estate	79.4	73.5	54.0	26.0	6.0	6.0	0.0	70.0	6.0
Information services	72.7	81.8	42.6	27.8	14.8	5.6	25.9	55.6	5.6
Business services	69.1	63.6	41.4	18.6	35.7	2.9	1.4	57.1	12.9
Financing	48.9	37.8	11.8	35.3	47.1	0.0	0.0	58.8	17.6

Note: Numbers may not add up to 100 due to lack of response or multiple response. Responses to investment objective include only companies that plan to invest in fiscal 2004.

4.　80% of Investing Companies to Meet or Exceed FY 2003 Level

Among companies planning to invest in fiscal 2004 (Figure 3), an almost even proportion expects investment to stay at the previous year's level (40.4%) and to increase (39.0%), while only 17.7% expect a decrease. Overall, the general tendency among these companies is toward higher investment. While the proportion of companies who plan to invest has slipped from last year, their investment intentions appear to be strong.

While no significant pattern appears by sector, more companies in non-manufacturing and secondary (process) manufacturing sectors show increases than in primary (raw materials) manufacturing. By company size, a relatively large proportion of small and medium and large companies report an increase.

By business conditions, the better the reported business conditions, the larger is the proportion of companies increasing investment.

Figure 3　Actual Investment (FY2003) and Planned Investment (FY2004)

(%)

	Increase	No change	Decrease
All industries	***39.0***	***40.4***	***17.7***
Sector			
Primary manufacturing	36.3	42.9	17.6
Secondary manufacturing	38.3	42.9	17.3
Non-manufacturing	39.5	38.8	18.5
Company size			
Large	39.3	38.6	19.6
2nd-tier	36.7	44.0	16.6
Small & medium	40.5	38.7	17.8
Business conditions			
Good, somewhat good	44.9	37.4	14.9
Normal	36.5	43.9	17.5
Bad, somewhat bad	34.4	40.1	21.9

Note: Numbers may not add up to 100 due to incomplete responses.

5. Increase in Investment is Attributed to Replacement and Competitiveness

As shown in Figure 4, the chief reasons for increasing investment in fiscal 2004 are the replacement investment cycle (46.0%), competition with rivals (28.6%), and increase in domestic private demand (20.5%).

By sector, demand factors are commonly cited in manufacturing, such as the increase in domestic private demand (27.8% for primary manufacturing, 26.7% for secondary manufacturing) and increase in foreign demand (15.1% and 18.5%, respectively). In non-manufacturing, many companies emphasize competition with rivals (33.2%). By company size, two notable patterns are that large companies (20.9%) tend to emphasize the increase in foreign demand, while small and medium companies (49.6%) stress the replacement investment cycle. By business conditions, companies reporting good conditions tend to be most affected by the increase in domestic private demand, while companies reporting poor conditions cite the replacement cycle (57.4%) and competition with rivals (33.0%).

Figure 4　Reasons for Increasing Investment

(%)

	More domestic private demand	More public works	More foreign demand	More profit, cash flow	Replace-ment cycle	To compete with rivals	Request by business partners	Change in bank's financing stance	Other
All industries	***20.5***	***0.5***	***10.0***	***5.4***	***46.0***	***28.6***	***8.4***	***0.0***	***25.4***
Sector									
Primary manufacturing	27.8	0.0	15.1	4.8	44.4	27.0	11.1	0.0	19.8
Secondary manufacturing	26.7	1.3	18.5	5.2	44.8	23.7	10.8	0.0	22.8
Non-manufacturing	14.4	0.3	2.3	6.3	47.0	33.2	6.3	0.0	27.9
Company size									
Large	23.6	0.0	20.9	6.4	35.5	26.4	6.4	0.0	29.1
2nd-tier	22.8	0.8	12.2	7.2	44.3	27.4	6.8	0.0	25.3
Small & medium	18.4	0.5	5.9	4.2	49.6	29.9	9.9	0.0	24.5
Business conditions									
Good, somewhat good	31.4	0.6	17.8	6.0	41.1	27.2	6.9	0.0	21.1
Normal	15.7	0.8	5.7	6.9	44.8	27.6	10.7	0.0	26.8
Bad, somewhat bad	6.8	0.0	1.7	2.3	57.4	33.0	7.4	0.0	30.7

Note: Numbers may not add up to 100 due to multiple responses (up to two responses).

6.　Decrease in Investment is Attributed to Sufficient Capacity (60%)

As shown in Figure 5, among companies that reduced investment in fiscal 2004, the overwhelming reason is that current capacity is sufficient (60.6%). This is followed distantly by decrease in profit and cash flow (9.7%), and decrease in domestic private demand (8.0%).

By sector, strong responses are seen in primary manufacturing for sufficient capacity (63.9%) and decrease in profit and cash flow (14.8%). By company size, large companies tend to emphasize the decrease in domestic private demand (18.2%) and decrease in public works spending (7.3%), while second-tier and small and medium companies tend to stress decreasing profit and cash flow and leasing. By business conditions, companies reporting less favorable conditions tend to emphasize the decrease in domestic private demand (15.2%) and decrease in profit and cash flow (17.0%).

Figure 5　Reasons for Decreasing Investment

(%)

	Less domestic private demand	Less public works	Less foreign demand	Less profit, cash flow	Capacity is sufficient	Switched to leasing	Change in bank's financing stance	Other
All industries	***8.0***	***3.7***	***0.0***	***9.7***	***60.6***	***5.4***	***0.3***	***27.7***
Sector								
Primary manufacturing	9.8	6.6	0.0	14.8	63.9	0.0	0.0	23.0
Secondary manufacturing	8.6	1.9	0.0	8.6	60.0	5.7	0.0	23.8
Non-manufacturing	7.3	3.9	0.0	8.4	59.8	6.1	0.0	32.4
Company size								
Large	18.2	7.3	0.0	7.3	47.3	0.0	0.0	30.9
2nd-tier	5.6	1.9	0.0	10.3	69.2	7.5	0.9	20.6
Small & medium	6.4	3.7	0.0	10.2	59.9	5.9	0.0	30.5
Business conditions								
Good, somewhat good	6.4	0.9	0.0	5.5	65.5	5.5	0.0	28.2
Normal	3.2	2.4	0.0	6.4	64.0	6.4	0.0	30.4
Bad, somewhat bad	15.2	7.1	0.0	17.0	52.7	4.5	0.9	23.2

Note: Numbers may not add up to 100 due to multiple responses (up to two responses).

7.　78% of Investing Companies Invest Only in Japan

We found that 78.3% of investing companies have a domestic investment ratio of 100%; that is, they are investing exclusively within Japan (Figure 6). Meanwhile, only 6.1% of companies allocate at least 30% of their investment abroad.

By sector, only about 70% of manufacturing companies have a domestic investment ratio of 100%, as a relatively large proportion invests abroad as well. By company size, only 58.9% of large companies have a domestic investment ratio of 100%, since the larger the company is, the more likely it is to be international in scope. By investment objective, among companies investing in research and development, only 56.3% have a domestic investment ratio of 100%, indicating that R&D facilities in particular are being strengthened abroad.

Figure 6　Domestic Investment Ratio

(%)

	100%	90～99%	70～89%	50～69%	30～49%	< 30%
All industries	*78.3*	*5.9*	*3.7*	*2.6*	*1.7*	*1.8*
Sector						
Primary manufacturing	71.2	8.1	8.4	4.0	2.9	1.7
Secondary manufacturing	70.5	8.4	5.8	4.8	3.5	2.0
Non-manufacturing	86.4	3.4	0.9	0.7	0.2	1.7
Company size						
Large	58.9	13.6	10.7	7.1	3.6	1.1
2nd-tier	77.9	7.7	3.9	2.5	2.6	0.8
Small & medium	83.8	2.8	1.7	1.5	0.7	2.6
Investment objective						
Increase capacity, sales	77.3	5.9	4.6	3.0	2.3	2.2
Improve products, services	82.1	5.7	2.0	1.2	1.6	0.4
Labor saving, streamlining	75.8	7.7	3.0	3.9	2.5	1.6
Business diversification	78.5	1.5	4.6	6.2	1.5	1.5
R&D	56.3	15.0	12.0	5.4	3.0	0.6
Replacement investment	80.6	5.4	3.7	2.3	1.1	1.5

Note: Numbers may not add up to 100 due to incomplete responses.

8. Over 40% of Investing Companies Self-Finance Entire Investment

Regarding the ratio of investment that is self-financed (Figure 7), the most prevalent self-financing ratio is 100% (41.8% of companies), followed by the under-25% range (18.7%), 99% to 75% range (11.6%), and 49% to 25% range (11.1%).

By sector, the self-financing ratio tends to be low in non-manufacturing, with 21.9% of companies self-financing less than 25% of investment, and only 48.0% of companies self-financing at least 75% of investment (compared to the overall average of 53.4%). By company size, the larger the company, the higher the self-financing ratio tends to be. In particular, over half of large companies have a self-financing ratio of 100%, and as many as two-thirds have a self-financing ratio of at least 75%. By cash flow situation, the better the cash flow, the higher the self-financing ratio tends to be.

Figure 7　Self-Financing Ratio of Investment

(%)

	100%	99～75%	74～50%	49～25%	25～0%
All industries	*41.8*	*11.6*	*10.8*	*11.1*	*18.7*
Sector					
Primary manufacturing	44.7	15.0	12.1	7.5	14.7
Secondary manufacturing	45.7	13.0	10.6	10.4	16.2
Non-manufacturing	38.3	9.7	10.6	12.9	21.9
Company size					
Large	50.7	17.1	8.9	6.8	8.9
2nd-tier	42.6	11.8	12.7	12.5	15.9
Small & medium	39.0	10.0	10.0	11.4	23.1
Cash flow conditions					
Good, somewhat good	48.0	13.6	9.0	9.0	14.4
Normal	38.2	9.5	12.0	13.1	21.4
Bad, somewhat bad	23.5	11.8	14.3	11.8	31.1

Note: Numbers may not add up to 100 due to incomplete responses.

9. Half of Companies Not Investing Cite Appropriate Capacity Level

Among companies with no investment planned in fiscal 2004 (Figure 8), the main reasons given are appropriate capacity level (49.2%), business uncertainty (16.4%), and use of leasing (15.6%). By sector, primary manufacturing shows relatively strong responses for appropriate capacity level (59.5%) and excessive capacity level (10.8%). On the other hand, secondary manufacturing tends to emphasize business uncertainty (24.1%). By company size, business uncertainty is an important concern for second-tier (14.3%) and small and medium (17.3%) companies. By business conditions, companies reporting unfavorable conditions tend to emphasize business uncertainty (25.8%), while companies reporting favorable conditions cite the use of leasing (17.7%).

Figure 8　Reasons for Not Investing

(%)

	Already adequate	Already excessive	Financing problems	Decrease in profit, cash flow	Don't want to borrow	Business uncertain	Rely on leasing	Plan to invest in FY 2005 or later	Other
All industries	*49.2*	*5.5*	*1.2*	*4.7*	*5.9*	*16.4*	*15.6*	*10.7*	*14.5*
Sector									
Primary manufacturing	59.5	10.8	0.0	10.8	5.4	13.5	8.1	16.2	5.4
Secondary manufacturing	48.3	6.9	0.0	4.6	4.6	24.1	16.1	16.1	12.6
Non-manufacturing	49.1	4.3	1.6	4.3	6.2	15.4	16.4	9.2	15.6
Company size									
Large	60.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	13.3
2nd-tier	50.0	6.0	0.0	3.6	8.3	14.3	16.7	6.0	10.7
Small & medium	48.4	5.6	1.5	5.1	5.6	17.3	14.6	12.2	15.3
Business conditions									
Good, somewhat good	50.4	5.7	0.0	2.1	6.4	12.8	17.7	12.1	15.6
Normal	51.9	2.1	0.0	1.6	6.4	10.2	17.6	10.7	16.0
Bad, somewhat bad	45.1	8.8	3.3	9.9	4.9	25.8	11.5	9.9	12.1

Note: Numbers may not add up to 100 due to multiple responses (up to two responses).

10.　45% Have Altered Investment Stance Since Late 1990s

Since the 1990s, 44.6% of companies have changed their investment stance, while 40.8% have not (Figure 9). By sector, more companies in manufacturing have changed their stance than in non-manufacturing. By company size, larger companies are more likely to have changed their stance. By business conditions, companies reporting favorable conditions are more likely to have changed their stance.

Among the companies that have changed their investment stance, the most common changes are focus on growth and expansion (35.8%), financing investment from cash flow (34.3%), and focus on investment in core business (29.9%). By sector, manufacturing tends to emphasize the focus on investment in core business, and adoption of a global perspective on investment decisions. By company size, larger companies tend to emphasize the focus on core business investment and cash flow financing of investment.

Figure 9　Change in Investment Stance

(%)

	Changed stance		Type of change							
	Yes	No	Focus on core business	Finance using cash flow	Focus on growth, expansion	Focus on IT invest-ment	Global perspec-tive	Focus on environ-ment	Focus on debt reduction	Other
All industries	*44.6*	*40.8*	*29.9*	*34.3*	*35.8*	*16.4*	*8.1*	*15.7*	*22.3*	*6.7*
Sector										
Primary manufacturing	49.3	36.6	42.4	34.8	30.8	11.1	15.2	14.1	22.2	3.0
Secondary manufacturing	50.4	38.3	34.3	34.6	37.9	14.0	14.9	16.6	18.8	5.1
Non-manufacturing	40.7	43.9	23.0	34.5	36.3	19.5	1.4	15.9	25.2	8.4
Company size										
Large	51.1	35.1	40.4	40.4	32.7	14.1	9.0	14.1	14.7	2.6
2nd-tier	45.0	40.2	33.9	36.6	34.2	16.4	12.2	13.1	22.3	5.1
Small & medium	43.2	42.4	25.3	31.7	37.4	17.1	5.9	17.6	24.2	8.3
Business conditions										
Good, somewhat good	46.4	39.9	32.9	30.1	42.0	14.1	14.1	15.5	18.4	6.2
Normal	44.2	40.9	28.6	38.1	35.0	16.7	5.3	12.9	23.3	6.8
Bad, somewhat bad	43.5	41.8	27.6	35.4	28.2	19.5	3.9	19.8	26.3	7.1

Note: Numbers may not add up to 100 due to incomplete and multiple responses (up to two responses).

11.　44% Cite Shortage of Skilled Workers

Regarding the supply of skilled workers (Figure 10), 43.6% of companies report that supply is either insufficient (4.9%) or somewhat insufficient (38.7%). On the other hand, as many as 39.3% say that supply is sufficient. By sector, the shortage is felt more keenly in secondary manufacturing (insufficient 5.2%, somewhat insufficient 47.8%). By company size, small and medium companies tend to be more affected (insufficient 4.9%, somewhat insufficient 39.4%). By business conditions, companies reporting favorable conditions tend to be affected (insufficient 5.4%, somewhat insufficient 42.7%) as well as those reporting unfavorable conditions (insufficient 5.8%, somewhat insufficient 39.4%). This can be explained in the first case as a shortage caused by business expansion. However, in the second case, the shortage may be affecting competitiveness, thereby contributing to the poor business conditions.

Figure 10　Supply of Skilled Workers

(%)

	Shortage	Slight shortage	Appropriate	Slight excess	Excess
All industries	***4.9***	***38.7***	***39.3***	***1.5***	***0.2***
Sector					
Primary manufacturing	3.5	40.3	44.8	2.2	0.0
Secondary manufacturing	5.2	47.8	37.9	1.0	0.0
Non-manufacturing	5.4	34.3	38.3	1.5	0.4
Company size					
Large	4.9	35.7	45.2	1.0	0.0
2nd-tier	5.0	38.6	39.0	1.3	0.5
Small & medium	4.9	39.4	38.4	1.7	0.1
Business conditions					
Good, somewhat good	5.4	42.7	37.2	0.4	0.1
Normal	3.6	34.2	44.6	1.3	0.1
Bad, somewhat bad	29.1	25.1	22.1	18.3	2.8

Note: Numbers may not add up to 100 due to incomplete responses.

12.　44% Perceive Growing Importance of Skilled Workers

As shown in Figure 11, 44.2% of companies think that skilled workers are increasing in importance (increasing 13.5%, increasing slightly 30.7%). Moreover, very few companies perceive the value of skilled workers to be decreasing (0.2%) or decreasing slightly (3.2%). However, 36.8% of companies see no change in importance. By sector, the growing importance of skilled workers is perceived more strongly in secondary manufacturing (increasing 16.4%, increasing slightly 36.9%). This perception tends to increase with company size, and among companies reporting favorable conditions (increasing importance 16.5%, increasing slightly importance 34.6%).

Figure 11　On the Future Importance of Skilled Workers

(%)

	Increasing	Increasing slightly	No change	Decreasing slightly	Decreasing
All industries	*13.5*	*30.7*	*36.8*	*3.2*	*0.2*
Sector					
Primary manufacturing	9.5	35.1	42.3	3.5	0.0
Secondary manufacturing	16.4	36.9	34.8	3.8	0.0
Non-manufacturing	13.2	26.8	36.4	2.9	0.4
Company size					
Large	17.0	27.5	40.3	2.3	0.0
2nd-tier	14.7	30.0	35.9	3.1	0.4
Small & medium	12.2	31.7	36.7	3.5	0.2
Business conditions					
Good, somewhat good	16.5	34.6	32.2	2.4	0.2
Normal	10.9	28.3	40.7	3.4	0.3
Bad, somewhat bad	13.1	28.7	38.1	3.8	0.1

Note: Numbers may not add up to 100 due to incomplete responses.

13.　60% Say Stricter Customer Standards Make Skilled Workers Necessary

Among companies citing the growing importance of skilled workers, the most prevalent reason is stricter customer standards (60.7%), followed by efficiency improvement (35.0%), and decline in ability of younger workers (19.6%).

By sector, manufacturing tends to emphasize the growing complexity of equipment operation, increase in small-lot diversified production, and decline in ability of younger workers. On the other hand, non-manufacturing tends to emphasize stricter customer standards and efficiency improvement. While significant differences are not observed by company size, second-tier and small and medium companies tend to emphasize stricter customer standards, and large companies tend to stress small-lot diversified production. By business conditions, companies reporting favorable conditions tend to underscore small-lot diversified production (20.4%) and complexity of equipment operation (18.0%).

Figure 12　Why Skilled Workers are Becoming More Important

(%)

	Complex equipment operation	Stricter customer standards	Lower ability of younger workers	Efficiency improve-ment	More info. linkage with other divisions	More small-lot, diversified production	Shorter product cycle	Other
All industries	*16.4*	*60.7*	*19.6*	*35.0*	*6.9*	*17.8*	*6.0*	*7.6*
Sector								
Primary manufacturing	19.6	53.6	23.5	29.6	1.7	33.5	6.1	4.5
Secondary manufacturing	20.2	57.6	22.0	31.8	5.6	29.2	9.5	5.0
Non-manufacturing	13.1	65.3	17.1	38.7	9.3	4.7	3.4	10.5
Company size								
Large	16.2	55.9	22.1	36.0	3.7	19.9	3.7	8.1
2nd-tier	16.2	63.5	17.7	33.8	9.6	17.4	7.5	8.4
Small & medium	16.3	60.4	20.1	35.2	6.2	17.7	5.7	7.1
Business conditions								
Good, somewhat good	18.0	58.1	18.0	34.1	5.6	20.4	8.0	8.7
Normal	15.0	64.8	20.5	33.9	7.9	15.8	5.2	6.0
Bad, somewhat bad	16.2	60.1	21.3	38.5	7.8	16.2	3.7	7.8

14.　56% Implement or Consider T&D Programs for Transfer of Skills

The most common measures being implemented or considered for the transfer of skills are training and development programs (55.9%), human resource allocation based on work content (36.7%), and extended employment of skilled workers (20.6%).

By sector, secondary manufacturing emphasizes T&D programs (61.4%) and creation or enhancement of award and certification programs (14.9%). Primary manufacturing is most prominent in extending employment of skilled workers (32.1%). By company size, larger companies are more active in promoting T&D programs and award and certification programs. However, company size appears to be unrelated to extending employment of skilled workers. By supply of skilled workers, the greater the shortage of skilled workers, the more likely companies are to implement or consider T&D programs, extended employment of skilled workers, and award and certification programs.

Figure 13　Measures Being Implemented or Considered for the Transfer of Skills

(%)

	Set up T&D program	Employ skilled workers longer	Restrict outsourcing	Allocate workers based on work content	Create or enhance award, certification programs	Other	No measures taken
All industries	***55.9***	***20.6***	***2.0***	***36.7***	***12.2***	***2.8***	***7.1***
Sector							
Primary manufacturing	53.7	32.1	2.7	40.0	7.5	3.5	6.7
Secondary manufacturing	61.4	27.4	2.3	37.9	14.9	2.5	5.9
Non-manufacturing	54.3	14.0	1.7	35.2	12.1	2.8	8.1
Company size							
Large	62.6	20.7	0.7	34.4	16.1	3.0	6.2
2nd-tier	58.9	19.9	1.6	35.9	13.4	2.3	5.2
Small & medium	53.1	21.0	2.5	37.6	10.8	3.1	8.3
Supply of skilled workers							
Sufficient, slightly so	70.0	30.1	2.4	39.2	14.7	3.7	5.9
Appropriate	61.4	18.3	2.1	46.8	14.1	2.7	10.5
Insufficient, slightly so	51.2	14.0	7.0	60.5	7.0	4.7	16.3

Note: Numbers may not add up to 100 due to multiple responses (up to two responses).

Nissay Business Conditions Survey

Survey date: August 2004
Sample size and composition: 2,564 companies, as shown below

① By company size

	No. of companies	Composition (%)
Large	305	11.9
2nd-tier	747	29.1
Small & medium	1,504	58.7
No response, other	8	0.3
Total	2,564	100.0

Note: Large companies have over 1,000 employees; 2nd-tier companies have 301- 1,000; small & medium companies have up to 300.

② By region

	No. of companies	Composition (%)
Hokkaido	124	4.8
Tohoku	149	5.8
Kanto	660	25.7
Koshinetsu, Hokuriku	107	4.2
Tokai	269	10.5
Kinki	701	27.3
Chugoku	225	8.8
Shikoku	100	3.9
Kyushu	176	6.9
No response, other	53	2.1
Total	2,564	100.0