Survey on Business Sentiment of Japanese Corporations in Thailand for the 2nd half of 2016

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JCC Economic Survey Team

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Survey Period

Questionnaire distribution date: 7 November 2016

Questionnaire submission deadline: 6 December 2016

Survey Response

The questionnaires were distributed to 1,724 JCC member firms.
(12 governmental organisations were excluded)

No. of firms responding to the questionnaires
508 firms

The response percentage
29.5%

No. of firms

Industry		No.
Manufacturing	Food	7
	Textiles	13
	Chemicals	46
	Steel/Non-ferrous metal	40
	General machinery	23
	Electrical/ electronic machinery	62
	Transportation machinery	60
	Others	37
	Manufacturing sector total	288
Non-manufacturing	Trading	82
	Retailing	10
	Finance/Insurance/Securities	19
	Construction/Civil engineering	28
	Transportation/Communication	35
	Others	46
	Non-manufacturing sector total	220
Total		508

Note

- Due to the small number of firms responding to some particular questions, it may not be advisable to evaluate the situation only by referring to the response percentage.

Survey Report

Please refer to the following pages.

1. BUSINESS SENTIMENT

(1) Summary

The business sentiment in the first half of 2016, compared to the second half of 2015, turned significantly upward (-4→9). However, the sentiment in the second half of 2016 was expected to become weaker, following the death of King Bhumibol Adulyadej (9→4) whereas considerable expansion is expected in the first half of 2017 (4→15). *(Table 1-1)*

(Table 1-1) Business Sentiment

Unit: %

	Past Surveys							Previous Survey			This Survey		
	Results							Results	Forecast		Results	Forecast	
	12/1	12/2	13/1	13/2	14/1	14/2	15/1	15/2	16/1	16/2	16/1	16/2	17/1
Improving	76	60	46	35	30	32	28	30	35	35	38	33	35
No change	11	21	28	28	20	35	35	36	38	47	33	38	45
Deteriorating	14	19	25	37	50	33	37	34	28	18	29	29	20
(Ref) DI	62	41	21	▲ 2	▲20	▲ 1	▲ 9	▲ 4	7	17	9	4	15

***(Note)** 1. DI = "Improving" minus "Deteriorating"

2. As a fraction of percentage is rounded off, the total may not equal 100 percent. This is also applied to the tables below.

***(Note)** To determine whether business performance is "improving" or "deteriorating", business performance is compared between a six-month term and its previous term. If DI, the deduction balance of "improving" answers and "deteriorating" answers, is positive, it signifies that the business performance of many respondent firms is improving; if negative, deteriorating.

(2) The first half of 2016 (January - June)

The percentage of firms reporting that business sentiment was "improving" increased by 8 points from the previous term (30%) to 38% while those reporting "deteriorating" decreased by 5 points from the previous term (34%) to 29%. As a result, the Diffusion Index (DI), the deduction balance of "improving" and "deteriorating", is +9, 13 points higher than the previous term (-4). *(Table 1-1)*

In the manufacturing sector, the DI in Electrical/ electronic machinery, etc. decreased whereas it increased in other industries. As a result, the overall DI in the manufacturing sector increased by 11 points from the previous term (+1) to +12. As to the non-manufacturing sector, DI increased in Trading, Retailing, and Transportation/Communication whereas the range of deterioration decreased in Construction/Civil engineering and Finance/Insurance/Securities, etc. The overall DI in the non-manufacturing sector increased by 15 points from the previous term (-10) to +5. *(Table 1-2)*

(3) The second half of 2016 (July - December) - Forecast

The percentage of firms reporting that business performance is "improving" decreased by 5 points from the previous term (38%) to 33% while those reporting "deteriorating" remains unchanged at 29%. As a result, the overall DI decreased by 5 points from the previous term (+9) to +4. *(Table 1-1)*

In the manufacturing sector, the DI increased in Food, General Machinery, and Electrical/ electronic machinery, etc. whereas it decreased in Textiles, Steel/Non-ferrous metal, and Transportation machinery, etc. As a result, the overall DI in the manufacturing sector decreased from the previous term by 1 point to 11%. For the non-manufacturing sector, the range of deterioration decreased in Finance/Insurance/Securities and Construction/Civil engineering while business sentiment deteriorated significantly in Trading, Retailing, and Transportation/Communication, etc. The overall DI in the non-manufacturing sector decreased by 8 points from the previous term (+5) to -3. *(Table 1-2)*

(4) The first half of 2017 (January - June) - Forecast

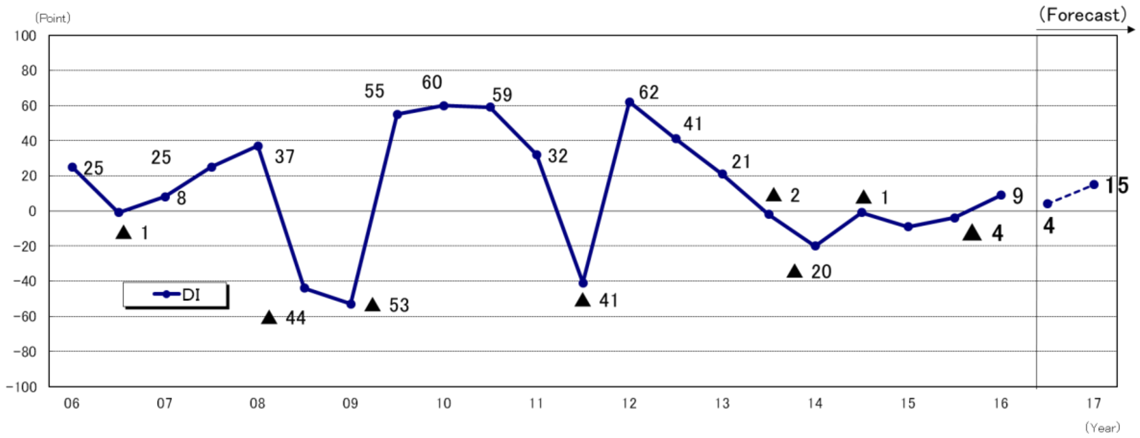
The percentage of firms forecasting “improving” business performance increased by 2 points from the previous term (33%) to 35% while the percentage of firms reporting “deteriorating” decreased by 9 points from the previous term (29%) to 20%. As a result, the overall DI increased by 11 points from the previous term (+4) to +15. *(Table 1-1)*

In the manufacturing sector, the DI decreased in Food and General Machinery, etc. whereas it increased in a number of industries such as Textiles, Chemicals, Steel/ Non-ferrous metal and Electrical/ electronic machinery, etc. The overall DI increased by 4 points from the previous term (+11) to +15. As for the non-manufacturing sector, DI increased in all industries, resulting in a huge increase of 19 points in its overall (-3→+16). *(Table 1-2)*

(Table 1-2) DI by Industry (“improving” — “deteriorating”)

Industry		Past Surveys								Survey this time		
		Result						Forecast		Result	Forecast	
		13H1	13H2	14H1	14H2	15H1	15H2	16H1	16H2	16H1	16H2	17H1
Manufacturing	Food	▲ 37	38	40	▲ 50	38	23	50	75	57	71	57
	Textiles	33	37	47	16	▲ 40	41	▲ 8	8	7	▲ 8	8
	Chemicals	22	▲ 3	▲ 15	13	2	15	39	31	37	15	30
	Steel/Non-ferrous metal	52	▲ 14	▲ 13	▲ 25	▲ 9	▲ 15	7	▲ 8	10	▲ 2	21
	General machinery	0	▲ 23	▲ 24	33	▲ 31	▲ 37	▲ 23	9	22	26	22
	Electrical/ electronic machinery	5	13	9	23	4	11	0	13	▲ 6	14	16
	Transportation machinery	9	▲ 51	▲ 62	▲ 23	▲ 18	▲ 16	▲ 5	▲ 2	7	▲ 12	▲ 8
	Others	18	13	▲ 19	▲ 5	▲ 12	11	0	8	10	32	10
	Manufacturing sector total	16	▲ 7	▲ 17	▲ 1	▲ 10	1	6	11	12	11	15
Non-manufacturing	Trading	30	9	▲ 16	2	▲ 8	6	14	30	19	▲ 2	17
	Retailing	10	23	▲ 42	11	25	▲ 11	0	45	10	▲ 30	40
	Finance/Insurance/Securities	61	▲ 7	▲ 24	▲ 20	▲ 6	▲ 25	0	26	▲ 22	▲ 11	23
	Construction/Civil engineering	20	16	▲ 56	▲ 15	▲ 54	▲ 50	▲ 26	▲ 3	▲ 39	▲ 11	▲ 4
	Transportation/Communication	13	▲ 21	▲ 35	▲ 10	▲ 18	▲ 22	34	40	18	0	17
	Others	37	13	▲ 7	7	19	11	13	10	9	6	16
	Non-manufacturing sector total	29	4	▲ 26	▲ 2	▲ 7	▲ 10	8	22	5	▲ 3	16
Total		21	▲ 2	▲ 20	▲ 1	▲ 9	▲ 4	7	17	9	4	15

(Figure 1) Historical change of DI in the business sentiment surveys of Japanese corporations



*(**Note**) Diffusion Index (DI) = Improving — Deteriorating (Compared with the previous term)

2. SALES

The percentage of firms forecasting an “increase” in their total sales for 2016 rose by 7 points from the previous year (45%) to 52%. The percentage of firms forecasting “more than 20% increase” in their total sales rose by 2 points from the previous year (13%) to 15%. *(Tables 2-1, 2-2)*

Regarding the total sales forecast for 2017, the number of firms anticipating an “increase” rose by 9 points from the previous year (52%) to 61% and the percentage of firms anticipating a “more than 20% increase” decreased by 5 points to 10%, from the previous year’s 15%. *(Tables 2-1, 2-3)*

(Table 2-1) Change in total sales

Unit: %

	Past surveys						Previous survey		This survey	
	Results						Result	Forecast	Forecast	
Year	09	10	11	12	13	14	15	16	16	17
Sales increase	33	82	54	73	52	50	45	54	52	61
“More than 20%”Sales increase	6	46	13	34	17	13	13	11	15	10

*(**Note**) Years are based on the financial year of each corporation.

(Table 2-2) Sales result for 2016

Unit: No. of firms and (%)

Industry		Increase				No Change	Decrease			
			More than 20%	10～20%	Less than 10%			Less than 10%	10～20%	More than 20%
Manufacturing	Food	6 (86)	0 (0)	2 (29)	4 (57)	0 (0)	1 (14)	1 (14)	0 (0)	0 (0)
	Textiles	5 (38)	0 (0)	3 (23)	2 (15)	5 (38)	3 (23)	3 (23)	0 (0)	0 (0)
	Chemicals	25 (56)	6 (13)	3 (7)	16 (36)	9 (20)	11 (24)	8 (18)	3 (7)	0 (0)
	Steel/Non-ferrous metal	18 (45)	7 (18)	1 (3)	10 (25)	9 (23)	13 (33)	7 (18)	3 (8)	3 (8)
	General machinery	12 (50)	8 (33)	1 (4)	3 (13)	3 (13)	9 (38)	1 (4)	5 (21)	3 (13)
	Electrical/ electronic machinery	30 (48)	9 (15)	12 (19)	9 (15)	12 (19)	20 (32)	7 (11)	8 (13)	5 (8)
	Transportation machinery	30 (52)	6 (10)	11 (19)	13 (22)	7 (12)	21 (36)	12 (21)	7 (12)	2 (3)
	Others	19 (53)	3 (8)	6 (17)	10 (28)	9 (25)	8 (22)	3 (8)	5 (14)	0 (0)
	Manufacturing sector total	145 (51)	39 (14)	39 (14)	67 (24)	54 (19)	86 (30)	42 (15)	31 (11)	13 (5)
Non-manufacturing	Trading	47 (57)	13 (16)	20 (24)	14 (17)	11 (13)	24 (29)	15 (18)	8 (10)	1 (1)
	Retailing	6 (67)	2 (22)	1 (11)	3 (33)	1 (11)	2 (22)	0 (0)	1 (11)	1 (11)
	Finance/Insurance/Securities	9 (60)	0 (0)	4 (27)	5 (33)	6 (40)	0 (0)	0 (0)	0 (0)	0 (0)
	Construction/Civil engineering	6 (22)	5 (19)	0 (0)	1 (4)	5 (19)	16 (59)	3 (11)	2 (7)	11 (41)
	Transportation/Communication	19 (54)	5 (14)	5 (14)	9 (26)	6 (17)	10 (29)	8 (23)	2 (6)	0 (0)
	Others	22 (67)	9 (27)	5 (15)	8 (24)	11 (33)	0 (0)	0 (0)	0 (0)	0 (0)
	Manufacturing sector total	109 (54)	34 (17)	35 (17)	40 (20)	40 (20)	52 (26)	26 (13)	13 (6)	13 (6)
Total		254 (52)	73 (15)	74 (15)	107 (22)	94 (19)	138 (28)	68 (14)	44 (9)	26 (5)

(Table 2-3) Sales forecast for 2017

Unit: No. of firms and (%)

Industry		Increase				No Change	Decrease			
			More than 20%	10～20%	Less than 10%			Less than 10%	10～20%	More than 20%
Manufacturing	Food	6 (86)	0 (0)	2 (29)	4 (57)	1 (14)	0 (0)	0 (0)	0 (0)	0 (0)
	Textiles	8 (53)	1 (7)	4 (27)	3 (20)	3 (20)	4 (27)	4 (27)	0 (0)	0 (0)
	Chemicals	33 (73)	8 (18)	4 (9)	21 (47)	6 (13)	6 (13)	5 (11)	0 (0)	1 (2)
	Steel/Non-ferrous metal	22 (54)	2 (5)	5 (12)	15 (37)	12 (29)	7 (17)	5 (12)	2 (5)	0 (0)
	General machinery	9 (43)	2 (10)	3 (14)	4 (19)	11 (52)	1 (5)	0 (0)	1 (5)	0 (0)
	Electrical/ electronic machinery	36 (57)	9 (14)	12 (19)	15 (24)	16 (25)	11 (17)	6 (10)	3 (5)	2 (3)
	Transportation machinery	30 (50)	2 (3)	12 (20)	16 (27)	15 (25)	15 (25)	10 (17)	4 (7)	1 (2)
	Others	20 (56)	1 (3)	5 (14)	14 (39)	8 (22)	8 (22)	5 (14)	3 (8)	0 (0)
	Manufacturing sector total	164 (57)	25 (9)	47 (16)	92 (32)	72 (25)	52 (18)	35 (12)	13 (5)	4 (1)
Non-manufacturing	Trading	51 (64)	6 (8)	16 (20)	29 (36)	23 (29)	6 (8)	3 (4)	2 (3)	1 (1)
	Retailing	8 (89)	1 (11)	0 (0)	7 (78)	1 (11)	0 (0)	0 (0)	0 (0)	0 (0)
	Finance/Insurance/Securities	10 (67)	0 (0)	3 (20)	7 (47)	4 (27)	1 (7)	1 (7)	0 (0)	0 (0)
	Construction/Civil engineering	13 (46)	3 (11)	3 (11)	7 (25)	11 (39)	4 (14)	1 (4)	0 (0)	3 (11)
	Transportation/Communication	19 (54)	2 (6)	3 (9)	14 (40)	11 (31)	5 (14)	3 (9)	1 (3)	1 (3)
	Others	28 (97)	11 (38)	13 (45)	4 (14)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)
	Manufacturing sector total	129 (66)	23 (12)	38 (19)	68 (35)	51 (26)	16 (8)	8 (4)	3 (2)	5 (3)
Total		293 (61)	48 (10)	85 (18)	160 (33)	123 (25)	68 (14)	43 (9)	16 (3)	9 (2)

3. PRE-TAX PROFIT/LOSS

Regarding 2016 pre-tax profit/loss, the ration of firms reporting “Profit” reaches 74%. Firms reporting an “Increase” in their pre-tax profit (including the cases that loss will diminish or vanish or balance achieved) account for 42% while 37% report a “Decrease”. *(Table 3-1)*

As for 2017, a high ratio of 81% anticipates “Profit”. Firms anticipating an “Increase” in their pre-tax profit are 41% while 24% anticipate a “Decrease”. *(Table 3-2)*

(Table 3-1) Pre-tax profit/loss in 2016 (Year-to-year comparison)

Unit: No. of firms and (%)

Industry		Profit	Balance	Loss	Total	Increase	No change	Decrease
Manufacturing	Food	7 (100)	0 (0)	0 (0)	7	6 (86)	1 (14)	0 (0)
	Textiles	12 (92)	0 (0)	1 (8)	13	4 (31)	5 (38)	4 (31)
	Chemicals	34 (74)	6 (13)	6 (13)	46	28 (61)	8 (17)	10 (22)
	Steel/Non-ferrous metal	33 (83)	2 (5)	5 (13)	40	23 (58)	7 (18)	10 (25)
	General machinery	16 (73)	3 (14)	3 (14)	22	10 (45)	2 (9)	10 (45)
	Electrical/ electronic machinery	48 (77)	3 (5)	11 (18)	62	20 (32)	13 (21)	29 (47)
	Transportation machinery	49 (83)	3 (5)	7 (12)	59	28 (47)	9 (15)	22 (37)
	Others	27 (75)	2 (6)	7 (19)	36	14 (39)	9 (25)	13 (36)
	Manufacturing sector total	226 (79)	19 (7)	40 (14)	285	133 (47)	54 (19)	98 (34)
Non-manufacturing	Trading	59 (72)	5 (6)	18 (22)	82	34 (41)	15 (18)	33 (40)
	Retailing	5 (56)	2 (22)	2 (22)	9	4 (44)	3 (33)	2 (22)
	Finance/Insurance/Securities	11 (73)	0 (0)	4 (27)	15	8 (53)	4 (27)	3 (20)
	Construction/Civil engineering	12 (43)	4 (14)	12 (43)	28	5 (18)	7 (25)	16 (57)
	Transportation/Communication	31 (89)	1 (3)	3 (9)	35	11 (31)	8 (23)	16 (46)
	Others	26 (58)	4 (9)	15 (33)	45	14 (31)	12 (27)	19 (42)
	Manufacturing sector total	144 (67)	16 (7)	54 (25)	214	76 (36)	49 (23)	89 (42)
Total		370 (74)	35 (7)	94 (19)	499	209 (42)	103 (21)	187 (37)

*(Note) 1. Profit increase indicates either expanding profit, turning to the black, diminishing loss, or moving up to the break-even point.

2. No change indicates either remaining at the same level as before regardless of being in the black, at the break-even point, or in the red.

3. Profit decrease indicates either diminishing profit, falling in to the red, expanding loss, or moving down to the break-even point.

(Table 3-2) Forecast of pre-tax profit/loss for 2017 (Year-to-year comparison)

Unit: No. of firms and (%)

Industry		Profit	Balance	Loss	Total	Increase	No change	Decrease
Manufacturing	Food	7 (100)	0 (0)	0 (0)	7	4 (57)	2 (29)	1 (14)
	Textiles	12 (92)	1 (8)	0 (0)	13	7 (54)	1 (8)	5 (38)
	Chemicals	39 (85)	3 (7)	4 (9)	46	18 (39)	16 (35)	12 (26)
	Steel/Non-ferrous metal	34 (83)	2 (5)	5 (12)	41	16 (39)	14 (34)	11 (27)
	General machinery	17 (77)	4 (18)	1 (5)	22	9 (41)	9 (41)	4 (18)
	Electrical/ electronic machinery	52 (84)	4 (6)	6 (10)	62	22 (35)	23 (37)	17 (27)
	Transportation machinery	53 (90)	1 (2)	5 (8)	59	19 (32)	17 (29)	23 (39)
	Others	33 (92)	2 (6)	1 (3)	36	15 (42)	15 (42)	6 (17)
	Manufacturing sector total	247 (86)	17 (6)	22 (8)	286	110 (38)	97 (34)	79 (28)
Non-manufacturing	Trading	64 (79)	7 (9)	10 (12)	81	37 (46)	29 (36)	15 (19)
	Retailing	8 (89)	0 (0)	1 (11)	9	4 (44)	4 (44)	1 (11)
	Finance/Insurance/Securities	10 (71)	0 (0)	4 (29)	14	5 (36)	7 (50)	2 (14)
	Construction/Civil engineering	13 (48)	9 (33)	5 (19)	27	12 (44)	11 (41)	4 (15)
	Transportation/Communication	28 (80)	3 (9)	4 (11)	35	9 (26)	13 (37)	13 (37)
	Others	32 (70)	9 (20)	5 (11)	46	25 (54)	13 (28)	8 (17)
	Manufacturing sector total	155 (73)	28 (13)	29 (14)	212	92 (43)	77 (36)	43 (20)
Total		402 (81)	45 (9)	51 (10)	498	202 (41)	174 (35)	122 (24)

*(**Note**) Same as Table 3-1

4. CAPITAL INVESTMENT (MANUFACTURING SECTOR)

The amount of planned capital investment (in the manufacturing sector) in 2017 decreased by 6.3% from 2016 (The total number of responding firms is 283). The ratio of firms anticipating an "Increase" in their capital investments in 2017 is 33% whereas 22% anticipate a "Decrease". *(Table 4-1)*

"Replacement" is the predominant reason for capital investment in both 2016 and 2017. *(Tables 4-2 and 4-3)*

(Table 4-1) Planned capital investment for 2016 and 2017 (Manufacturing)

Unit: No. of firms and (%), Million Baht and %

Industry	2016	2017		No. of firms								
	Amount	Amount	Increase	Increase		No change		Decrease		Undecided		Total
Food	2,069	2,503	21.0	3	(43)	3	(43)	0	(0)	1	(14)	7
Textiles	3,122	1,587	▲ 49.2	3	(23)	3	(23)	7	(54)	0	(0)	13
Chemicals	4,787	5,435	13.5	20	(47)	15	(35)	4	(9)	4	(9)	43
Steel/Non-ferrous metal	4,112	3,989	▲ 3.0	15	(37)	14	(34)	8	(20)	4	(10)	41
General machinery	356	464	30.5	7	(30)	8	(35)	5	(22)	3	(13)	23
Electrical/ electronic machinery	18,931	16,203	▲ 14.4	18	(29)	21	(33)	13	(21)	11	(17)	63
Transportation machinery	21,322	21,314	▲ 0.0	20	(35)	14	(25)	19	(33)	4	(7)	57
Others	4,817	4,256	▲ 11.7	8	(22)	19	(53)	7	(19)	2	(6)	36
Manufacturing sector total	59,515	55,750	▲ 6.3	94	(33)	97	(34)	63	(22)	29	(10)	283

*(**Note**) The figures in the above table show just the total data given by the corporations responding to the questionnaire. The capital-investment amount in the above table does not equal that of the Japanese corporations in Thailand as a whole.

(Table 4-2) Details of actual capital investment in 2016 (Check all that apply)

Unit: No. of firms and (%)

Industry	New		Expansion		Replacement		Streamlining		Others		Total	No. of firms
Food	3	(43)	4	(57)	6	(86)	1	(14)	0	(0)	14	7
Textiles	4	(31)	4	(31)	8	(62)	5	(38)	0	(0)	21	13
Chemicals	14	(38)	7	(19)	23	(62)	17	(46)	1	(3)	62	37
Steel/Non-ferrous metal	10	(26)	7	(18)	23	(59)	9	(23)	0	(0)	49	39
General machinery	7	(35)	3	(15)	13	(65)	6	(30)	2	(10)	31	20
Electrical/ electronic machinery	21	(39)	12	(22)	34	(63)	18	(33)	7	(13)	92	54
Transportation machinery	31	(55)	15	(27)	27	(48)	23	(41)	3	(5)	99	56
Others	9	(28)	8	(25)	19	(59)	11	(34)	0	(0)	47	32
Manufacturing sector total	99	(38)	60	(23)	153	(59)	90	(35)	13	(5)	415	258

(Table 4-3) Details of actual capital investment in 2017 (Check all that apply)

Unit: No. of firms and (%)

Industry	New		Expansion		Replacement		Streamlining		Others		Total	No. of firms
Food	4	(57)	3	(43)	6	(86)	1	(14)	0	(0)	14	7
Textiles	4	(31)	3	(23)	8	(62)	5	(38)	0	(0)	20	13
Chemicals	14	(38)	13	(35)	22	(59)	13	(35)	1	(3)	63	37
Steel/Non-ferrous metal	9	(23)	9	(23)	21	(54)	10	(26)	0	(0)	49	39
General machinery	7	(35)	8	(40)	11	(55)	8	(40)	2	(10)	36	20
Electrical/ electronic machinery	17	(31)	14	(26)	35	(65)	19	(35)	7	(13)	92	54
Transportation machinery	29	(52)	11	(20)	33	(59)	24	(43)	3	(5)	100	56
Others	7	(22)	4	(13)	23	(72)	13	(41)	1	(3)	48	32
Manufacturing sector total	91	(35)	65	(25)	159	(62)	93	(36)	14	(5)	422	258

5. EXPORT TREND

The percentage of firms reporting an "Increase" in their exports in the second half of 2016 is 31% while that in the first half of 2017 is 39%, which both exceed "Decrease" of their term. As for the 2016 full-year exports, the firms anticipating an "Increase" account for 35%, exceeding "Decrease" (17%) by 18 points. *(Tables 5-1, 5-2, and 5-3)*

(Table 5-1) Exports in 2016 (Second half)

Unit: No. of firms and (%)

Industry	Increase				No change	Decrease				Total
		More than 20%	10～20%	Less than 10%			Less than 10%	10～20%	More than 20%	
Food	6 (86)	1 (14)	1 (14)	4 (57)	1 (14)	0 (0)	0 (0)	0 (0)	0 (0)	7
Textiles	5 (38)	1 (8)	1 (8)	3 (23)	3 (23)	5 (38)	4 (31)	1 (8)	0 (0)	13
Chemicals	19 (41)	7 (15)	6 (13)	6 (13)	20 (43)	7 (15)	5 (11)	1 (2)	1 (2)	46
Steel/Non-ferrous metal	9 (24)	2 (5)	1 (3)	6 (16)	24 (63)	5 (13)	1 (3)	2 (5)	2 (5)	38
General machinery	3 (17)	1 (6)	2 (11)	0 (0)	14 (78)	1 (6)	0 (0)	1 (6)	0 (0)	18
Electrical/ electronic machinery	25 (42)	5 (8)	5 (8)	15 (25)	21 (35)	14 (23)	7 (12)	4 (7)	3 (5)	60
Transportation machinery	16 (28)	1 (2)	7 (12)	8 (14)	21 (37)	20 (35)	9 (16)	5 (9)	6 (11)	57
Others	10 (30)	1 (3)	1 (3)	8 (24)	17 (52)	6 (18)	4 (12)	1 (3)	1 (3)	33
Manufacturing sector total	93 (34)	19 (7)	24 (9)	50 (18)	121 (44)	58 (21)	30 (11)	15 (6)	13 (5)	272
Trading	18 (24)	4 (5)	3 (4)	11 (14)	53 (70)	5 (7)	2 (3)	1 (1)	2 (3)	76
Retailing	0 (0)	0 (0)	0 (0)	0 (0)	2 (100)	0 (0)	0 (0)	0 (0)	0 (0)	2
Others	1 (25)	0 (0)	0 (0)	1 (25)	3 (75)	0 (0)	0 (0)	0 (0)	0 (0)	4
Non-manufacturing sector total	20 (23)	4 (5)	3 (3)	13 (15)	61 (70)	6 (7)	2 (2)	1 (1)	3 (3)	87
Total	113 (31)	23 (6)	27 (8)	63 (18)	182 (51)	64 (18)	32 (9)	16 (4)	16 (4)	359

(Table 5-2) Exports in 2017 (First half)

Unit: No. of firms and (%)

Industry	Increase				No change	Decrease				Total
		More than 20%	10～20%	Less than 10%			Less than 10%	10～20%	More than 20%	
Food	4 (57)	0 (0)	1 (14)	3 (43)	3 (43)	0 (0)	0 (0)	0 (0)	0 (0)	7
Textiles	5 (38)	0 (0)	3 (23)	2 (15)	6 (46)	2 (15)	1 (8)	1 (8)	0 (0)	13
Chemicals	24 (53)	7 (16)	5 (11)	12 (27)	17 (38)	4 (9)	3 (7)	0 (0)	1 (2)	45
Steel/Non-ferrous metal	11 (30)	2 (5)	3 (8)	6 (16)	20 (54)	6 (16)	3 (8)	0 (0)	3 (8)	37
General machinery	6 (33)	0 (0)	5 (28)	1 (6)	12 (67)	0 (0)	0 (0)	0 (0)	0 (0)	18
Electrical/ electronic machinery	26 (43)	1 (2)	5 (8)	20 (33)	28 (46)	7 (11)	2 (3)	3 (5)	2 (3)	61
Transportation machinery	21 (37)	3 (5)	3 (5)	15 (26)	23 (40)	13 (23)	5 (9)	5 (9)	3 (5)	57
Others	10 (30)	1 (3)	1 (3)	8 (24)	17 (52)	6 (18)	4 (12)	1 (3)	1 (3)	33
Manufacturing sector total	107 (39)	14 (5)	26 (10)	67 (25)	126 (46)	38 (14)	18 (7)	10 (4)	10 (4)	271
Trading	28 (37)	3 (4)	4 (5)	21 (28)	44 (58)	4 (5)	1 (1)	2 (3)	1 (1)	76
Retailing	1 (50)	1 (50)	0 (0)	0 (0)	1 (50)	0 (0)	0 (0)	0 (0)	0 (0)	2
Others	1 (25)	0 (0)	0 (0)	1 (25)	3 (75)	0 (0)	0 (0)	0 (0)	0 (0)	4
Non-manufacturing sector total	31 (36)	4 (5)	4 (5)	23 (26)	51 (59)	5 (6)	1 (1)	2 (2)	2 (2)	87
Total	138 (39)	18 (5)	30 (8)	90 (25)	177 (49)	43 (12)	19 (5)	12 (3)	12 (3)	358

(Table 5-3) Exports in 2016 (Full year)

Unit: No. of firms and (%)

Industry	Increase				No change	Decrease				Total
		More than 20%	10～20%	Less than 10%			Less than 10%	10～20%	More than 20%	
Food	3 (43)	0 (0)	2 (29)	1 (14)	4 (57)	0 (0)	0 (0)	0 (0)	0 (0)	7
Textiles	6 (46)	0 (0)	3 (23)	3 (23)	4 (31)	3 (23)	3 (23)	0 (0)	0 (0)	13
Chemicals	21 (48)	6 (14)	8 (18)	7 (16)	16 (36)	7 (16)	5 (11)	1 (2)	1 (2)	44
Steel/Non-ferrous metal	9 (24)	1 (3)	3 (8)	5 (13)	24 (63)	5 (13)	2 (5)	2 (5)	1 (3)	38
General machinery	5 (28)	1 (6)	3 (17)	1 (6)	12 (67)	1 (6)	0 (0)	1 (6)	0 (0)	18
Electrical/ electronic machinery	26 (43)	2 (3)	8 (13)	16 (27)	19 (32)	15 (25)	6 (10)	7 (12)	2 (3)	60
Transportation machinery	19 (33)	1 (2)	7 (12)	11 (19)	23 (40)	16 (28)	5 (9)	7 (12)	4 (7)	58
Others	11 (32)	1 (3)	3 (9)	7 (21)	15 (44)	8 (24)	5 (15)	2 (6)	1 (3)	34
Manufacturing sector total	100 (37)	12 (4)	37 (14)	51 (19)	117 (43)	55 (20)	26 (10)	20 (7)	9 (3)	272
Trading	22 (29)	4 (5)	3 (4)	15 (20)	49 (64)	5 (7)	3 (4)	1 (1)	1 (1)	76
Retailing	1 (50)	1 (50)	0 (0)	0 (0)	1 (50)	0 (0)	0 (0)	0 (0)	0 (0)	2
Others	1 (25)	0 (0)	0 (0)	1 (25)	3 (75)	0 (0)	0 (0)	0 (0)	0 (0)	4
Non-manufacturing sector total	25 (29)	5 (6)	3 (3)	17 (20)	56 (64)	6 (7)	3 (3)	1 (1)	2 (2)	87
Total	125 (35)	17 (5)	40 (11)	68 (19)	173 (48)	61 (17)	29 (8)	21 (6)	11 (3)	359

6. PROSPECTIVE FUTURE MARKETS

***(check-all-that-apply question)**

The prospective future markets are “Vietnam” (45%), “Indonesia” (38%), “India” (32%), “Myanmar” (29%), and “Japan” (19%). *(Table 6)*

（Table 6）Prospective future markets (check-all-that-apply question)

Unit: No. of firms and (%)

The time before last	Last time	This time		Manufacturing: Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Non-manufacturing: Trading	Retailing	Construction/ Civil engineering	Others	Non-manufacturing sector total	Grand total
1	1	1	Vietnam	3 (43)	3 (23)	26 (62)	16 (47)	13 (62)	17 (30)	22 (40)	12 (38)	112 (43)	38 (50)	2 (67)	2 (40)	3 (50)	45 (50)	157 (45)
2	2	2	Indonesia	2 (29)	2 (15)	16 (38)	15 (44)	14 (67)	15 (26)	29 (53)	13 (41)	106 (41)	25 (33)	1 (33)	0 (0)	1 (17)	27 (30)	133 (38)
3	3	3	India	1 (14)	4 (31)	15 (36)	9 (26)	7 (33)	20 (35)	18 (33)	11 (34)	85 (33)	24 (32)	0 (0)	0 (0)	4 (67)	28 (31)	113 (32)
4	4	4	Myanmar	1 (14)	1 (8)	13 (31)	8 (24)	5 (24)	11 (19)	14 (25)	9 (28)	62 (24)	36 (47)	1 (33)	2 (40)	0 (0)	39 (43)	101 (29)
5	6	5	Japan	2 (29)	7 (54)	5 (12)	3 (9)	1 (5)	17 (30)	8 (15)	5 (16)	48 (18)	17 (22)	0 (0)	1 (20)	0 (0)	18 (20)	66 (19)
6	5	6	Cambodia	1 (14)	1 (8)	6 (14)	5 (15)	2 (10)	7 (12)	6 (11)	6 (19)	34 (13)	15 (20)	1 (33)	1 (20)	0 (0)	17 (19)	51 (15)
7	8	7	Philippines	1 (14)	0 (0)	7 (17)	6 (18)	6 (29)	7 (12)	13 (24)	3 (9)	43 (16)	6 (8)	0 (0)	0 (0)	0 (0)	6 (7)	49 (14)
9	10	8	USA	2 (29)	6 (46)	5 (12)	2 (6)	0 (0)	11 (19)	7 (13)	7 (22)	40 (15)	4 (5)	0 (0)	0 (0)	1 (17)	5 (6)	45 (13)
8	8	9	Malaysia	1 (14)	0 (0)	5 (12)	6 (18)	5 (24)	5 (9)	6 (11)	5 (16)	33 (13)	8 (11)	0 (0)	0 (0)	1 (17)	9 (10)	42 (12)
9	9	10	Laos	1 (14)	0 (0)	5 (12)	2 (6)	2 (10)	4 (7)	6 (11)	3 (9)	23 (9)	14 (18)	0 (0)	2 (40)	0 (0)	16 (18)	39 (11)
11	11	11	China	0 (0)	1 (8)	4 (10)	1 (3)	1 (5)	11 (19)	5 (9)	4 (13)	27 (10)	12 (16)	0 (0)	0 (0)	0 (0)	12 (13)	39 (11)
13	12	12	Europe	1 (14)	4 (31)	3 (7)	2 (6)	1 (5)	8 (14)	5 (9)	2 (6)	26 (10)	2 (3)	0 (0)	0 (0)	0 (0)	2 (2)	28 (8)
13	13	13	Middle East	0 (0)	1 (8)	1 (2)	3 (9)	0 (0)	6 (11)	5 (9)	4 (13)	20 (8)	2 (3)	1 (33)	0 (0)	1 (17)	4 (4)	24 (7)
12	14	14	Latin America	0 (0)	0 (0)	3 (7)	1 (3)	2 (10)	5 (9)	5 (9)	3 (9)	19 (7)	1 (1)	0 (0)	0 (0)	1 (17)	2 (2)	21 (6)
16	16	15	Africa	0 (0)	3 (23)	0 (0)	1 (3)	0 (0)	6 (11)	5 (9)	1 (3)	16 (6)	2 (3)	0 (0)	0 (0)	1 (17)	3 (3)	19 (5)
19	19	16	Pakistan	0 (0)	0 (0)	3 (7)	0 (0)	2 (10)	0 (0)	4 (7)	1 (3)	10 (4)	4 (5)	0 (0)	0 (0)	0 (0)	4 (4)	14 (4)
15	15	17	Bangladesh	0 (0)	1 (8)	3 (7)	0 (0)	1 (5)	1 (2)	0 (0)	0 (0)	6 (2)	5 (7)	0 (0)	0 (0)	1 (17)	6 (7)	12 (3)
17	18	18	Singapore	1 (14)	0 (0)	2 (5)	1 (3)	0 (0)	3 (5)	0 (0)	0 (0)	7 (3)	1 (1)	0 (0)	0 (0)	0 (0)	1 (1)	8 (2)
17	17	18	Oceania	1 (14)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	3 (5)	1 (3)	6 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (2)
21	20	20	Sri Lanka	1 (14)	1 (8)	0 (0)	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	3 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	3 (1)
20	21	21	Russia	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (3)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)
—	—	—	Others	0 (0)	1 (8)	1 (2)	1 (3)	1 (5)	3 (5)	1 (2)	1 (3)	9 (3)	4 (5)	0 (0)	0 (0)	0 (0)	4 (4)	13 (4)
Total				24	47	129	51	49	123	150	80	736	162	10	22	12	248	984
No. of firms				7	13	42	34	21	57	55	32	261	76	3	5	6	90	351 (100)

7. EXCHANGE RATES USED IN BUSINESS PLANS

(1) Thai Baht/ US dollar

Regarding exchange rates used in business plans (Thai Baht/US Dollar), the predominant response is “A range between not less than 35.0 but less than 35.5” (52.0%), followed by “Not less than 35.5 but less than 36.0” (20.0%). The median rate is 35.00. *(Table 7-1)*

（Table 7-1）Exchange rates used in business plans (Thai Baht/UD Dollar)

Unit: Thai Baht/ US dollar, No. of firms and (%)

Industry / Baht/ US dollar		Manufacturing									Non-manufacturing				Grand total	
		Food	Textiles	Chemicals	Steel/Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Others	Non-manufacturing sector total		
Not less than 29.0	but less than 29.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 29.5	but less than 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 30	but less than 30.5	0	0	0	0	0	0	1	0	1	0	0	0	0	1	(0.4)
Not less than 30.5	but less than 31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 31	but less than 31.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 31.5	but less than 32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 32	but less than 32.5	0	0	0	1	0	1	0	0	2	0	0	0	0	2	(0.8)
Not less than 32.5	but less than 33	0	0	0	0	0	0	0	1	1	0	0	0	0	1	(0.4)
Not less than 33.0	but less than 33.5	0	0	0	1	0	0	0	1	2	2	0	0	2	4	(1.6)
Not less than 33.5	but less than 34	0	0	0	0	0	1	1	0	2	1	0	0	1	3	(1.2)
Not less than 34	but less than 34.5	1	3	3	1	2	1	1	2	14	3	0	2	5	19	(7.6)
Not less than 34.5	but less than 35	0	1	3	1	2	1	3	4	15	2	0	0	2	17	(6.8)
Not less than 35	but less than 35.5	2	7	20	17	5	24	6	13	94	32	1	3	36	130	(52.0)
Not less than 35.5	but less than 36.0	1	1	6	9	2	9	5	4	37	11	0	2	13	50	(20.0)
Not less than 36.0	but less than 36.5	0	0	2	2	0	2	1	3	10	4	0	0	4	14	(5.6)
Not less than 36.5	but less than 37	0	0	1	0	0	0	1	1	3	3	0	0	3	6	(2.4)
Not less than 37	but less than 37.5	0	0	0	0	0	1	0	0	1	0	0	0	0	1	(0.4)
Not less than 37.5	but less than 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 38	but less than 38.5	0	0	0	0	0	0	0	0	0	0	0	1	1	1	(0.4)
No. of firms		4	12	36	32	11	40	19	29	183	58	1	8	67	250	
Average		34.88	34.78	36.85	34.99	34.86	34.40	34.70	34.93	35.44	36.39	35.00	35.31	36.23	35.63	
Median		35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	
Mode		35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	#N/A	35.00	35.00	35.00	

*(**Note**) The median indicates the value located at the center of distribution excluding deviation due to the number of respondents or the lowest/ highest value as much as possible.

At the time of last survey

Industry / Baht/ US dollar	Manufacturing									Non-manufacturing				Grand total
	Food	Textiles	Chemicals	Steel/Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Others	Non-manufacturing sector total	
Average	34.78	35.16	35.39	35.21	34.96	35.27	35.09	35.16	35.18	35.39	34.50	36.64	35.55	35.25
Median	35.00	35.00	35.50	35.30	35.00	35.35	35.00	35.00	35.10	35.50	34.50	37.00	35.50	35.10
Mode	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	#N/A	37.00	35.00	35.00

*(**Note**)The median indicates the value located at the center of distribution excluding deviation due to the number of respondents or the lowest/ highest value as much as possible.

(2) Japanese Yen/ Thai Baht

Regarding exchange rates used in business plans (Japanese Yen/ Thai Baht), the predominant response is “Not less than 3.0 but less than 3.1” (56.4%), followed by “Not less than 2.9 but less than 3.0”, and “Not less than 3.1 but less than 3.2”, each accounting for 17%. The median rate is 3.00. *(Table 7-2)*

(Table 7-2) Exchange rates used in business plans (Japanese Yen/Thai Baht)

Unit: Japanese Yen/Thai Baht, No. of firms and (%)

Industry / Japanese Yen/ Baht		Manufacturing									Non-manufacturing				Grand total	
		Food	Textiles	Chemicals	Steel/Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Others	Non-manufacturing sector total		
Not less than 2.6	but more than 2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 2.7	but more than 2.8	0	0	1	0	0	0	1	2	4	1	0	0	1	5	(2.3)
Not less than 2.8	but more than 2.9	1	2	2	2	2	4	5	1	19	6	0	1	7	26	(11.9)
Not less than 2.9	but more than 3	0	0	5	4	1	9	9	4	32	5	0	0	5	37	(17.0)
Not less than 3	but more than 3.1	1	6	15	16	6	20	15	15	94	19	3	7	29	123	(56.4)
Not less than 3.1	but more than 3.2	2	1	3	3	3	8	9	2	31	5	0	1	6	37	(17.0)
Not less than 3.2	but more than 3.3	1	1	2	2	1	1	2	2	12	4	0	2	6	18	(8.3)
Not less than 3.3	but more than 3.4	0	1	3	4	2	2	2	2	16	8	1	0	9	25	(11.5)
Not less than 3.4	but more than 3.5	0	0	1	1	1	2	1	2	8	0	0	0	0	8	(3.7)
Not less than 3.5	but more than 3.6	0	0	2	0	0	1	2	0	5	1	0	0	1	6	(2.8)
Not less than 3.6	but more than 3.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 3.7	but more than 3.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 3.8	but more than 3.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 3.9	but more than 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(0.0)
Not less than 4	but more than 4.1	0	0	0	0	1	0	0	0	1	0	0	0	0	1	(0.5)
No. of firms		4	9	26	26	14	34	31	23	167	37	4	10	51	218	

	Food	Textiles	Chemicals	Steel/Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Others	Non-manufacturing sector total	Grand total
Average	3.04	3.03	3.06	7.06	3.12	3.70	3.04	2.95	3.78	3.06	3.08	3.03	3.05	3.62
Median	3.10	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mode	3.10	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

*(**Note**)The median indicates the value located at the center of distribution excluding deviation due to the number of respondents or the lowest/ highest value as much as possible.

At the time of last survey

Industry / Japanese Yen/ Baht	Manufacturing									Non-manufacturing				Grand total
	Food	Textiles	Chemicals	Steel/Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Others	Non-manufacturing sector total	
Average	3.22	3.17	3.25	3.21	3.22	3.19	3.24	3.24	3.22	3.25	3.22	3.13	3.23	3.22
Median	3.20	3.20	3.30	3.20	3.20	3.20	3.20	3.25	3.20	3.30	3.20	3.10	3.20	3.20
Mode	3.20	3.20	3.30	3.20	3.10	3.20	3.20	3.30	3.20	3.30	3.20	3.10	3.30	3.20

*(**Note**)The median indicates the value located at the center of distribution excluding deviation due to the number of respondents or the lowest/ highest value as much as possible.

8. PROCUREMENT SOURCE OF PARTS/ MATERIALS

Regarding the procurement sources in 2016 (simple average of the respondents), "ASEAN" accounts for 59.8%, of which 50.4% is "Thailand". *(Table 8-1)*

As for the planned procurement sources in 2017, "ASEAN" accounts for 59.9%, of which 50.7% is "Thailand", a 0.3-point increase from the previous term. *(Table 8-2)*

(Table 8-1) Suppliers of parts and materials in 2016

Unit：%

Industry		ASEAN			Japan	China	Others	Total	No. of firms
			Thailand	ASEAN (Other than Thailand)					
Manufacturing	Food	92.1	83.6	8.5	6.6	1.0	0.3	100.0	6
	Textiles	67.5	58.6	8.9	11.9	10.4	10.2	100.0	13
	Chemicals	60.0	50.8	9.2	28.3	5.1	6.6	100.0	40
	Steel/Non-ferrous metal	48.5	40.8	7.7	39.0	2.3	10.2	100.0	39
	General machinery	67.8	65.4	2.4	30.4	1.4	0.4	100.0	19
	Electrical/ electronic machinery	54.0	46.9	7.1	31.5	12.5	2.0	100.0	59
	Transportation machinery	63.4	57.9	5.5	29.2	3.0	4.4	100.0	56
	Others	54.7	44.9	9.7	30.8	3.9	10.6	100.0	33
	Manufacturing sector average	63.5	56.1	7.4	26.0	4.9	5.6	100.0	265
Non-manufacturing	Trading	53.8	39.5	14.4	34.4	9.1	2.7	100.0	79
	Retailing	60.0	33.3	26.7	40.0	0.0	▲ 0.0	100.0	3
	Construction	77.9	73.1	4.8	11.1	11.0	0.0	100.0	5
	Others	32.5	32.5	0.0	67.5	0.0	0.0	100.0	4
	Non-manufacturing sector average	56.1	44.6	11.5	38.2	5.0	0.7	100.0	91
Total		59.8	50.4	9.4	32.1	5.0	3.1	100.0	356

*(**Note**) The ratio indicates the simple average of the respondents.

(Table 8-2) Suppliers of parts and materials in 2016

Unit：%

Industry		ASEAN			Japan	China	Others	Total	No. of firms
			Thailand	ASEAN (Other than Thailand)					
Manufacturing	Food	92.1	83.6	8.5	6.6	1.0	0.3	100.0	6
	Textiles	66.2	59.4	6.8	12.4	10.9	10.5	100.0	12
	Chemicals	60.7	51.6	9.1	25.7	5.5	8.2	100.0	40
	Steel/Non-ferrous metal	46.4	39.7	6.7	38.9	3.0	11.7	100.0	39
	General machinery	65.6	63.3	2.3	29.2	1.9	3.4	100.0	20
	Electrical/ electronic machinery	55.8	48.5	7.3	29.1	12.8	2.2	100.0	58
	Transportation machinery	64.0	59.3	4.7	29.2	2.6	4.2	100.0	53
	Others	56.0	45.2	10.8	29.1	4.4	10.5	100.0	31
	Manufacturing sector average	63.3	56.3	7.0	25.0	5.3	6.4	100.0	259
Non-manufacturing	Trading	55.1	39.8	15.3	33.2	8.1	3.7	100.0	77
	Retailing	60.0	33.3	26.7	40.0	0.0	▲ 0.0	100.0	3
	Construction	81.0	77.2	3.8	12.4	6.6	0.0	100.0	5
	Others	30.0	30.0	0.0	67.5	2.5	0.0	100.0	4
	Non-manufacturing sector average	56.5	45.1	11.4	38.3	4.3	0.9	100.0	89
Total		59.9	50.7	9.2	31.7	4.8	3.6	100.0	348

*(**Note**) Same as Table 8-1.

9. CHALLENGES FOR CORPORATE MANAGEMENT

***(check-all-that-apply question)**

Regarding the challenges for corporate management, the predominant response is “Severe competition by competitors” (75%), followed by “Increase in total labor cost” (38%), “Sluggish domestic demand” (32%), and “Foreign exchange fluctuation” (31%).

By industry, the other major response in the manufacturing is “Lack of human resources at engineer level” (41%) while that in the non-manufacturing is “Lack of human resources at manager level” (25%). *(Table 9)*

(Table 9) Challenges for corporate management (check-all-that-apply question)

Unit: No. of firms and (%)

Last time	This time		Manufacturing									Non-manufacturing							
			Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Finance/ Insurance	Construction/ Civil engineering	Transportation/ communication	Others	Non-manufacturing sector total	Grand total
1	1	Severe competition by competitors	6 (86)	10 (77)	33 (72)	29 (73)	15 (65)	51 (82)	48 (81)	27 (77)	219 (77)	60 (73)	5 (56)	14 (74)	23 (82)	26 (74)	28 (64)	156 (72)	375 (75)
2	2	Increase in total labor cost	6 (86)	5 (38)	23 (50)	15 (38)	9 (39)	24 (39)	30 (51)	17 (49)	129 (45)	18 (22)	3 (33)	8 (42)	6 (21)	15 (43)	12 (27)	62 (29)	191 (38)
3	3	Sluggish domestic demand	1 (14)	9 (69)	10 (22)	13 (33)	10 (43)	11 (18)	28 (47)	2 (6)	84 (29)	37 (45)	5 (56)	3 (16)	14 (50)	11 (31)	6 (14)	76 (35)	160 (32)
5	4	Foreign exchange fluctuation	1 (14)	5 (38)	11 (24)	15 (38)	9 (39)	31 (50)	27 (46)	10 (29)	109 (38)	37 (45)	1 (11)	0 (0)	1 (4)	1 (3)	5 (11)	45 (21)	154 (31)
4	5	Lack of human resources in engineer-level	2 (29)	5 (38)	18 (39)	12 (30)	12 (52)	21 (34)	33 (56)	13 (37)	116 (41)	7 (9)	1 (11)	0 (0)	14 (50)	1 (3)	9 (20)	32 (15)	148 (29)
7	6	Lack of human resources in manager-level	2 (29)	2 (15)	10 (22)	10 (25)	5 (22)	16 (26)	13 (22)	7 (20)	65 (23)	21 (26)	2 (22)	5 (26)	2 (7)	17 (49)	8 (18)	55 (25)	120 (24)
6	7	Quality management	2 (29)	4 (31)	9 (20)	15 (38)	8 (35)	17 (27)	22 (37)	15 (43)	92 (32)	5 (6)	0 (0)	0 (0)	9 (32)	6 (17)	1 (2)	21 (10)	113 (23)
8	8	Changes in product/ users' needs	4 (57)	8 (62)	11 (24)	8 (20)	4 (17)	18 (29)	10 (17)	7 (20)	70 (25)	19 (23)	4 (44)	4 (21)	0 (0)	5 (14)	10 (23)	42 (19)	112 (22)
9	9	Job hopping of employees	2 (29)	1 (8)	11 (24)	7 (18)	7 (30)	7 (11)	12 (20)	6 (17)	53 (19)	17 (21)	3 (33)	8 (42)	2 (7)	10 (29)	6 (14)	46 (21)	99 (20)
10	10	Hike in material prices	4 (57)	4 (31)	12 (26)	13 (33)	3 (13)	15 (24)	12 (20)	8 (23)	71 (25)	13 (16)	2 (22)	1 (5)	2 (7)	4 (11)	2 (5)	24 (11)	95 (19)
12	11	Lack of human resources in worker/ staff-level	3 (43)	2 (15)	5 (11)	3 (8)	1 (4)	4 (6)	3 (5)	4 (11)	25 (9)	7 (9)	3 (33)	1 (5)	3 (11)	9 (26)	4 (9)	27 (12)	52 (10)
11	12	Excessive employment	0 (0)	3 (23)	5 (11)	7 (18)	2 (9)	8 (13)	12 (20)	5 (14)	42 (15)	2 (2)	0 (0)	0 (0)	2 (7)	2 (6)	1 (2)	7 (3)	49 (10)
13	13	Difficulty in collecting money from customers	0 (0)	0 (0)	3 (7)	3 (8)	1 (4)	0 (0)	0 (0)	2 (6)	9 (3)	6 (7)	0 (0)	0 (0)	3 (11)	0 (0)	2 (5)	11 (5)	20 (4)
14	14	Excessive capital investment	0 (0)	1 (8)	0 (0)	4 (10)	0 (0)	3 (5)	6 (10)	1 (3)	15 (5)	1 (1)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	3 (1)	18 (4)
15	14	Increase in energy cost	2 (29)	1 (8)	6 (13)	2 (5)	0 (0)	1 (2)	5 (8)	0 (0)	17 (6)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (2)	1 (0)	18 (4)
15	16	Rent hike	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	1 (2)	1 (2)	0 (0)	3 (1)	3 (4)	1 (11)	1 (5)	2 (7)	3 (9)	0 (0)	10 (5)	13 (3)
15	17	Employment condition in relation with obtaining Visas and Work Permits	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)	5 (6)	0 (0)	0 (0)	2 (7)	1 (3)	2 (5)	10 (5)	11 (2)
19	18	Difficulty in obtaining financial support	0 (0)	0 (0)	0 (0)	1 (3)	1 (4)	1 (2)	1 (2)	0 (0)	4 (1)	1 (1)	1 (11)	0 (0)	2 (7)	0 (0)	1 (2)	5 (2)	9 (2)
18	19	Infringement of intellectual properties	1 (14)	1 (8)	1 (2)	0 (0)	2 (9)	0 (0)	1 (2)	0 (0)	6 (2)	1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0)	7 (1)
−	19	Waste disposal	0 (0)	0 (0)	1 (2)	0 (0)	0 (0)	3 (5)	0 (0)	0 (0)	4 (1)	1 (1)	0 (0)	0 (0)	1 (4)	0 (0)	1 (2)	3 (1)	7 (1)
−	19	Environment protection measures	1 (14)	0 (0)	1 (2)	2 (5)	0 (0)	0 (0)	2 (3)	1 (3)	7 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	7 (1)
−	22	Stable supply of electricity	0 (0)	1 (8)	1 (2)	0 (0)	1 (4)	1 (2)	0 (0)	0 (0)	4 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	4 (1)
−	−	Others	0 (0)	1 (8)	1 (2)	6 (15)	1 (4)	2 (3)	1 (2)	0 (0)	12 (4)	5 (6)	1 (11)	3 (16)	0 (0)	3 (9)	2 (5)	14 (6)	26 (5)
Total			37	63	174	165	91	235	267	125	1157	266	32	48	88	116	101	651	1,808
No. of firms			7	13	46	40	23	62	59	35	285	82	9	19	28	35	44	217	502 (100)

*(Note) “Sluggish domestic demand" and "Rent hike" are added this time.

10. REQUESTS TO THE THAI GOVERNMENT

***(check-all-that-apply question)**

Regarding requests to the Thai Government, the predominant response is “Promotion of economic measures (Development of public infrastructure)” (56%), followed by “Customs-related systems and their implementation” (47%), “Development of infrastructure in the Bangkok metropolitan area” (34%), “Public security and safety” (30%), and “Improvement of the taxation system such as corporate tax” (28%), etc.

By industry, the other major response in the manufacturing is “Improvement of education/human resource development” (29%) while those in the non-manufacturing are “Relaxation of the Foreign Business Act” (33%) and “Work permit/visa-related issues” (27%). *(Table 10)*

(Table 10) Requests to the Thai government (check-all-that-apply question)

Unit: No. of firms and (%)

Last time	This time		Manufacturing									Non-manufacturing							
			Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Finance/ Insurance	Construction/ Civil engineering	Transportation/ communication	Others	Non-manufacturing sector total	Grand total
1	1	Promotion of economic measures (public infrastructure development etc.)	4 (57)	10 (77)	20 (45)	21 (54)	14 (61)	31 (50)	45 (76)	22 (61)	167 (59)	36 (44)	7 (70)	13 (68)	18 (67)	16 (47)	23 (50)	113 (52)	280 (56)
2	2	Customs-related systems and their implementation	3 (43)	7 (54)	20 (45)	20 (51)	12 (52)	36 (58)	27 (46)	16 (44)	141 (50)	54 (66)	5 (50)	4 (21)	4 (15)	17 (50)	9 (20)	93 (43)	234 (47)
3	3	Development of transport infrastructure in the Bangkok metropolitan area	3 (43)	6 (46)	16 (36)	13 (33)	7 (30)	22 (35)	15 (25)	12 (33)	94 (33)	30 (37)	4 (40)	9 (47)	7 (26)	11 (32)	13 (28)	74 (34)	168 (34)
4	4	Public security and safety	2 (29)	4 (31)	11 (25)	9 (23)	8 (35)	22 (35)	18 (31)	8 (22)	82 (29)	28 (34)	6 (60)	7 (37)	10 (37)	11 (32)	8 (17)	70 (32)	152 (30)
6	5	Improvement of the taxation system such as corporate tax	2 (29)	1 (8)	7 (16)	8 (21)	9 (39)	23 (37)	21 (36)	10 (28)	81 (29)	22 (27)	1 (10)	5 (26)	10 (37)	10 (29)	12 (26)	60 (28)	141 (28)
7	5	Improvement of education/human resource development	3 (43)	6 (46)	13 (30)	8 (21)	5 (22)	22 (35)	17 (29)	8 (22)	82 (29)	11 (13)	0 (0)	4 (21)	6 (22)	7 (21)	15 (33)	43 (20)	125 (25)
14	7	Promotion of economic ties e.g. FTA, EPA etc.	2 (29)	7 (54)	9 (20)	9 (23)	3 (13)	21 (34)	22 (37)	5 (14)	78 (28)	23 (28)	3 (30)	3 (16)	3 (11)	9 (26)	5 (11)	46 (21)	124 (25)
5	8	Relaxation of the Foreign Business Act	2 (29)	0 (0)	6 (14)	6 (15)	7 (30)	13 (21)	7 (12)	3 (8)	44 (16)	33 (40)	2 (20)	5 (26)	9 (33)	11 (32)	12 (26)	72 (33)	116 (23)
13	9	Logistical infrastructure development linking Thailand with neighboring countries(CLMV and India etc.)	1 (14)	6 (46)	8 (18)	2 (5)	0 (0)	11 (18)	8 (14)	7 (19)	43 (15)	21 (26)	2 (20)	3 (16)	3 (11)	17 (50)	6 (13)	52 (24)	95 (19)
12	10	Implementation of flood prevention measures	3 (43)	4 (31)	9 (20)	6 (15)	5 (22)	15 (24)	14 (24)	10 (28)	66 (23)	11 (13)	4 (40)	4 (21)	2 (7)	3 (9)	5 (11)	29 (13)	95 (19)
8	11	Work permit/visa-related issues	1 (14)	2 (15)	5 (11)	3 (8)	3 (13)	10 (16)	5 (8)	4 (11)	33 (12)	16 (20)	2 (20)	5 (26)	8 (30)	11 (32)	16 (35)	58 (27)	91 (18)
9	12	Stability in foreign exchange rates	1 (14)	0 (0)	6 (14)	9 (23)	5 (22)	16 (26)	16 (27)	8 (22)	61 (22)	19 (23)	1 (10)	1 (5)	1 (4)	0 (0)	3 (7)	25 (11)	86 (17)
−	13	Continuity of policies	0 (0)	2 (15)	7 (16)	1 (3)	5 (22)	7 (11)	16 (27)	9 (25)	47 (17)	6 (7)	0 (0)	2 (11)	4 (15)	4 (12)	4 (9)	20 (9)	67 (13)
11	14	Development of the communication infrastructure	1 (14)	0 (0)	8 (18)	4 (10)	3 (13)	6 (10)	4 (7)	2 (6)	28 (10)	5 (6)	2 (20)	4 (21)	4 (15)	7 (21)	11 (24)	33 (15)	61 (12)
15	15	Prevention of labor disputes	1 (14)	3 (23)	5 (11)	3 (8)	2 (9)	11 (18)	16 (27)	5 (14)	46 (16)	1 (1)	0 (0)	0 (0)	1 (4)	8 (24)	0 (0)	10 (5)	56 (11)
10	16	Implementation of drought control measures	2 (29)	0 (0)	10 (23)	4 (10)	1 (4)	5 (8)	7 (12)	7 (19)	36 (13)	5 (6)	1 (10)	1 (5)	0 (0)	0 (0)	5 (11)	12 (6)	48 (10)
18	17	Protection of intellectual property rights	3 (43)	1 (8)	2 (5)	1 (3)	3 (13)	3 (5)	2 (3)	1 (3)	16 (6)	9 (11)	1 (10)	2 (11)	2 (7)	6 (18)	2 (4)	22 (10)	38 (8)
16	18	Promotion of employment of foreign labour	1 (14)	1 (8)	2 (5)	0 (0)	1 (4)	8 (13)	5 (8)	1 (3)	19 (7)	2 (2)	0 (0)	1 (5)	2 (7)	4 (12)	8 (17)	17 (8)	36 (7)
17	19	Promotion of regional operating headquarters function (e.g. IHQ, ITC)	0 (0)	0 (0)	2 (5)	0 (0)	2 (9)	4 (6)	2 (3)	1 (3)	11 (4)	9 (11)	0 (0)	4 (21)	0 (0)	2 (6)	4 (9)	19 (9)	30 (6)
−	−	Others	0 (0)	0 (0)	5 (11)	2 (5)	3 (13)	0 (0)	1 (2)	0 (0)	11 (4)	4 (5)	0 (0)	2 (11)	1 (4)	0 (0)	1 (2)	8 (4)	19 (4)
Total			35	60	171	129	98	286	268	139	1186	345	41	79	95	154	162	876	2,062
No. of firms			7	13	44	39	23	62	59	36	283	82	10	19	27	34	46	218	501 (100)

11. CUSTOMS CLEARANCE PROCEDURE

(1) Improvement of Customs Clearance Procedure

Regarding improvement of Customs clearance procedure, 6% of the firms respond “Improving” (6%), 75% “No change”, and 3% “Deteriorating”. The rest (17%) reply “Don’t know”. *(Table 11-1)*

(Table 11-1) Improvement of customs clearance procedure

Unit: No. of firms and (%)

Industry		Improving		No change		Deteriorating		Don’t know		No. of firms
Manufacturing	Food	1	(14)	6	(86)	0	(0)	0	(0)	7
	Textiles	0	(0)	12	(100)	0	(0)	0	(0)	12
	Chemicals	2	(5)	34	(77)	0	(0)	8	(18)	44
	Steel/Non-ferrous metal	1	(3)	30	(77)	2	(5)	6	(15)	39
	General machinery	0	(0)	15	(79)	0	(0)	4	(21)	19
	Electrical/ electronic machinery	4	(6)	53	(85)	1	(2)	4	(6)	62
	Transportation machinery	8	(14)	45	(78)	0	(0)	5	(9)	58
	Others	1	(3)	26	(76)	2	(6)	5	(15)	34
	Manufacturing sector total	17	(6)	221	(80)	5	(2)	32	(12)	275
Non-manufacturing	Trading	3	(4)	68	(83)	5	(6)	6	(7)	82
	Retailing	1	(20)	3	(60)	0	(0)	1	(20)	5
	Finance/Insurance/Securities	0	(0)	1	(17)	0	(0)	5	(83)	6
	Construction/Civil engineering	1	(7)	3	(20)	1	(7)	10	(67)	15
	Transportation/Communication	4	(14)	18	(64)	0	(0)	6	(21)	28
	Others	0	(0)	13	(50)	0	(0)	13	(50)	26
	Non-manufacturing sector total	9	(6)	106	(65)	6	(4)	41	(25)	162
Total		26	(6)	327	(75)	11	(3)	73	(17)	437

(2) Issues on Customs Clearance Procedure (check-all-that-apply question)

Regarding issues on customs clearance procedure, the predominant responses are “Tariff classification (Custom rate) and Customs valuation (including royalty and licence fees) vary depending on the Customs Office/Officer.” (52%), “Small mistakes in invoices, Certificates of Origin, shipping documents, etc. are pointed out and it takes time to revise (consignment/cargo must be stored in a warehouse).” (38%), and “Rules applicable to Certificates of Origin for the Japan-Thailand Economic Partnership Agreement (JTEPA) and ASEAN Trade in Goods Agreement (ATIGA) are too strict.” (27%). *(Table 11-2)*

(Table 11-2) Issues on custom clearance procedure (check-all-that-apply question)

Unit: No. of firms and (%)

Ranking		Manufacturing									Non-manufacturing						Grand total
		Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Construction/ Civil engineering	Transportation/ communication	Others	Non-manufacturing sector total	
1	Tariff classification (custom rate) and Customs valuation (including royalty and license fees) vary depending on the Customs Offices/Officers	2 (40)	3 (30)	18 (56)	19 (66)	9 (53)	25 (50)	23 (43)	0 (0)	107 (49)	42 (60)	1 (50)	7 (88)	10 (45)	10 (48)	70 (57)	177 (52)
2	Small mistakes in an invoice, certificate of origin, shipping documents, etc. are pointed out and it takes time to revise (consignment/cargos should be stored in a warehouse)	2 (40)	6 (60)	12 (38)	8 (28)	5 (29)	21 (42)	24 (44)	0 (0)	89 (40)	24 (34)	1 (50)	2 (25)	9 (41)	6 (29)	42 (34)	131 (38)
3	Rules applicable to certificates of origin for the Japan-Thailand Economic Partnership Agreement (JTEPA) and ASEAN Trade in Goods Agreement (ATIGA) are too strict	1 (20)	6 (60)	8 (25)	12 (41)	1 (6)	12 (24)	21 (39)	0 (0)	68 (31)	17 (24)	0 (0)	1 (13)	4 (18)	3 (14)	25 (20)	93 (27)
4	Penalty for mistakes on application forms is excessive and the criteria (50% to 400% of the shortage of the amount) is unclear	0 (0)	0 (0)	8 (25)	5 (17)	5 (29)	10 (20)	15 (28)	0 (0)	44 (20)	17 (24)	0 (0)	1 (13)	10 (45)	3 (14)	31 (25)	75 (22)
5	Reimbursement of duty such as BIS19 takes too long period of time	2 (40)	3 (30)	5 (16)	8 (28)	2 (12)	10 (20)	17 (31)	0 (0)	53 (24)	10 (14)	0 (0)	0 (0)	6 (27)	3 (14)	19 (15)	72 (21)
6	Submission of many irrelevant documents without rational reasons is requested for exports	1 (20)	3 (30)	8 (25)	1 (3)	0 (0)	3 (6)	8 (15)	0 (0)	26 (12)	7 (10)	0 (0)	1 (13)	2 (9)	2 (10)	12 (10)	38 (11)
7	For shipments with no fixed price at the time of import declaration, it takes too long period of time to obtain payment notification after reporting the fixed price such that surcharge or penalty is applied in some cases	0 (0)	1 (10)	1 (3)	2 (7)	0 (0)	7 (14)	7 (13)	0 (0)	18 (8)	5 (7)	0 (0)	2 (25)	2 (9)	2 (10)	11 (9)	29 (8)
—	others	1 (20)	2 (20)	2 (6)	1 (3)	2 (12)	4 (8)	2 (4)	0 (0)	14 (6)	2 (3)	0 (0)	0 (0)	3 (14)	4 (19)	9 (7)	23 (7)
Total		9	24	62	56	24	92	117	0	419	124	2	14	46	33	219	638
No. of firms		5	10	32	29	17	50	54	23	##	70	2	8	22	21	##	343 ####

12. TAXATION SYSTEM (Excluding Customs Duties)

(1) Application of Taxation system

Regarding the application of taxation system, 54% of the firms respond “Room for improvement”, 2% “No issues” and the rest of 44% “Don’t know”. *(Table 12-1)*

(Table 12-1) Application of taxation system

Unit: No. of firms and (%)

	Industry	Room for improvement		No issue		Neither		No. of firms
Manufacturing	Food	5	(71)	0	(0)	2	(29)	7
	Textiles	5	(36)	0	(0)	9	(64)	14
	Chemicals	23	(55)	0	(0)	19	(45)	42
	Steel/Non-ferrous metal	16	(44)	0	(0)	20	(56)	36
	General machinery	9	(39)	0	(0)	14	(61)	23
	Electrical/ electronic machinery	34	(56)	1	(2)	26	(43)	61
	Transportation machinery	34	(59)	2	(3)	22	(38)	58
	Others	17	(46)	0	(0)	20	(54)	37
	Manufacturing sector total	143	(51)	3	(1)	132	(47)	278
Non-manufacturing	Trading	51	(64)	1	(1)	28	(35)	80
	Retailing	1	(10)	1	(10)	8	(80)	10
	Finance/Insurance/Securities	9	(50)	0	(0)	9	(50)	18
	Construction/Civil engineering	16	(59)	2	(7)	9	(33)	27
	Transportation/Communication	25	(71)	1	(3)	9	(26)	35
	Others	19	(48)	1	(3)	20	(50)	40
	Non-manufacturing sector total	121	(58)	6	(3)	83	(40)	210
Total		264	(54)	9	(2)	215	(44)	488

(2) Issues on taxation system (check-all-that-apply question)

Regarding issues on the application of taxation system, the predominant response is “Indication of problems without a clear reason” (47%), followed by “Delay in the tax refund procedure” (41%) and “Complicated tax refund procedure” (41%). *(Table 12-2)*

(Table 12-2) Issues on taxation system (check-all-that-apply question)

Unit: No. of firms and (%)

Ranking		Manufacturing: Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Non-manufacturing: Trading	Retailing	Construction/ Civil engineering	Transportation/ communication	Others	Non-manufacturing sector total	Grand total
1	Indication of problem without clear reason	1 (25)	4 (80)	11 (46)	9 (50)	4 (40)	20 (56)	17 (45)	0 (0)	77 (51)	24 (45)	0 (0)	2 (12)	16 (64)	10 (36)	52 (42)	129 (47)
2	Delay in the tax refund procedure	1 (25)	2 (40)	8 (33)	9 (50)	3 (30)	12 (33)	20 (53)	0 (0)	61 (40)	18 (34)	1 (100)	11 (65)	12 (48)	11 (39)	53 (43)	114 (41)
3	Complicated tax refund procedure	3 (75)	1 (20)	4 (17)	11 (61)	3 (30)	14 (39)	16 (42)	0 (0)	58 (38)	21 (40)	1 (100)	8 (47)	14 (56)	11 (39)	55 (44)	113 (41)
4	Handling by the officers	1 (25)	2 (40)	9 (38)	5 (28)	3 (30)	11 (31)	10 (26)	0 (0)	49 (32)	15 (28)	0 (0)	4 (24)	11 (44)	10 (36)	40 (32)	89 (32)
5	Complicated filing procedure	0 (0)	3 (60)	7 (29)	3 (17)	3 (30)	12 (33)	8 (21)	0 (0)	42 (28)	20 (38)	0 (0)	4 (24)	4 (16)	7 (25)	35 (28)	77 (28)
6	Excessive additional/delinquent tax	0 (0)	0 (0)	1 (4)	4 (22)	3 (30)	10 (28)	10 (26)	0 (0)	32 (21)	8 (15)	0 (0)	1 (6)	6 (24)	3 (11)	18 (15)	50 (18)
7	Frequent tax inspection	1 (25)	1 (20)	1 (4)	0 (0)	3 (30)	4 (11)	6 (16)	0 (0)	19 (13)	11 (21)	1 (100)	1 (6)	1 (4)	5 (18)	19 (15)	38 (14)
8	Others	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	2 (6)	0 (0)	0 (0)	2 (1)	7 (13)	0 (0)	0 (0)	2 (8)	3 (11)	12 (10)	14 (5)
Total		8	14	43	45	28	101	103	0	393	150	4	33	75	71	333	726
No. of firms		4	5	24	18	10	36	38	17	152	53	1	17	25	28	124	276 (100)

13. PERSONNEL SHORTAGE/ HUMAN RESOURCES DEVELOPMENT

(1) Types of job in which personnel shortage is recognised. (check-all-that-apply question)

Regarding the types of job in which personnel shortage is recognised, the predominant response is "Engineer (Non-IT)" (48%), followed by "Clerical managers" (29%), "Sales persons (technical)" (27%), and "Clerks with Japanese language skill" (20%).

By industry, other major response in the manufacturing sector is "Technician" (21%) and in the non-manufacturing sector "Salespersons (clerical)" (27%). *(Table 13-1)*

(Table 13-1) Types of job in which personnel shortage is recognised (check-all-that-apply question)

Unit: No. of firms and (%)

		Manufacturing									Non-manufacturing						
		Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Construction/ Civil engineering	Transportation/ communication	Others	Non-manufacturing sector total	Grand total
1	Engineers (Non-IT)	3 (43)	8 (62)	26 (60)	22 (55)	16 (76)	42 (69)	45 (78)	0 (0)	184 (66)	10 (14)	1 (11)	17 (65)	2 (6)	11 (19)	41 (21)	225 (48)
2	Clerical managers	2 (29)	4 (31)	12 (28)	12 (30)	3 (14)	16 (26)	18 (31)	0 (0)	74 (27)	19 (26)	2 (22)	6 (23)	14 (45)	22 (38)	63 (32)	137 (29)
3	Salespersons(technical)	1 (14)	4 (31)	19 (44)	7 (18)	8 (38)	11 (18)	13 (22)	0 (0)	78 (28)	26 (36)	0 (0)	8 (31)	5 (16)	9 (16)	48 (24)	126 (27)
4	Clerks with Japanese language skills	0 (0)	4 (31)	13 (30)	9 (23)	5 (24)	8 (13)	18 (31)	0 (0)	61 (22)	18 (25)	2 (22)	3 (12)	6 (19)	6 (10)	35 (18)	96 (20)
5	Salespersons(clerical)	0 (0)	4 (31)	9 (21)	10 (25)	0 (0)	7 (11)	9 (16)	0 (0)	42 (15)	25 (35)	2 (22)	0 (0)	13 (42)	12 (21)	52 (27)	94 (20)
6	Technician	0 (0)	5 (38)	5 (12)	9 (23)	2 (10)	15 (25)	13 (22)	0 (0)	58 (21)	2 (3)	1 (11)	4 (15)	3 (10)	3 (5)	13 (7)	71 (15)
7	Staff (accounting/administration)	0 (0)	2 (15)	6 (14)	2 (5)	2 (10)	9 (15)	6 (10)	0 (0)	30 (11)	7 (10)	2 (22)	5 (19)	3 (10)	15 (26)	32 (16)	62 (13)
8	IT Engineers	2 (29)	1 (8)	4 (9)	3 (8)	2 (10)	12 (20)	6 (10)	0 (0)	35 (13)	3 (4)	0 (0)	0 (0)	3 (10)	11 (19)	17 (9)	52 (11)
8	Export/Import/Procurement professionals	1 (14)	1 (8)	4 (9)	1 (3)	1 (5)	5 (8)	6 (10)	0 (0)	20 (7)	5 (7)	1 (11)	0 (0)	3 (10)	2 (3)	11 (6)	31 (7)
10	Plant and machinery workers	2 (29)	2 (15)	3 (7)	2 (5)	0 (0)	2 (3)	2 (3)	0 (0)	17 (6)	0 (0)	3 (33)	4 (15)	1 (3)	5 (9)	13 (7)	30 (6)
11	Staff (clerical staff excluding accounting /administration)	1 (14)	0 (0)	2 (5)	1 (3)	0 (0)	2 (3)	4 (7)	0 (0)	11 (4)	5 (7)	3 (33)	1 (4)	2 (6)	8 (14)	19 (10)	30 (6)
12	Others	0 (0)	0 (0)	3 (7)	1 (3)	0 (0)	2 (3)	2 (3)	0 (0)	9 (3)	9 (13)	0 (0)	1 (4)	3 (10)	2 (3)	15 (8)	24 (5)
13	Drivers	1 (14)	1 (8)	2 (5)	2 (5)	1 (5)	1 (2)	0 (0)	0 (0)	9 (3)	4 (6)	1 (11)	0 (0)	3 (10)	4 (7)	12 (6)	21 (4)
Total		13	36	108	81	40	132	142	0	628	133	18	49	61	110	371	999
No. of firms		7	13	43	40	21	61	58	34	277	72	9	26	31	58	196	473 (100)

(2) Shortage of Engineers (check-all-that-apply question)

Regarding of the shortage of engineers by industry, the predominant response is “Plant management engineers” (44%), followed by “Production management engineers” (38%), “R&D engineers” (26%), and “Sales engineers” (25%). *(Table 13-2)*

*(Note) The respondents of this question are only those replying “Engineer (excluding IT engineer)” and “IT engineer” in Question 13-1.

（Table 13-2）Shortage of engineers (check-all-that-apply question)

Unit: No. of firms and (%)

Ranking		Manufacturing									Non-manufacturing						Grand total
		Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Construction/ Civil engineering	Transportation/ communication	Others	Non-manufacturing sector total	
1	Plant management engineers	2 (67)	6 (75)	13 (46)	15 (65)	2 (13)	17 (36)	34 (71)	0 (0)	98 (51)	0 (0)	0 (0)	6 (40)	2 (40)	4 (21)	12 (22)	110 (44)
2	Production management engineers	2 (67)	6 (75)	12 (43)	12 (52)	1 (6)	20 (43)	20 (42)	0 (0)	85 (44)	1 (7)	0 (0)	5 (33)	0 (0)	3 (16)	9 (17)	94 (38)
3	R&D engineers	0 (0)	4 (50)	9 (32)	3 (13)	4 (25)	18 (38)	16 (33)	0 (0)	58 (30)	3 (21)	0 (0)	1 (7)	0 (0)	3 (16)	7 (13)	65 (26)
4	Sales engineers (marketing)	0 (0)	1 (13)	10 (36)	4 (17)	8 (50)	8 (17)	6 (13)	0 (0)	44 (23)	10 (71)	0 (0)	0 (0)	2 (40)	5 (26)	17 (31)	61 (25)
5	Service engineers	0 (0)	0 (0)	3 (11)	0 (0)	4 (25)	6 (13)	2 (4)	0 (0)	16 (8)	4 (29)	1 (100)	3 (20)	2 (40)	9 (47)	19 (35)	35 (14)
6	Designers	0 (0)	0 (0)	1 (4)	0 (0)	4 (25)	2 (4)	3 (6)	0 (0)	12 (6)	0 (0)	0 (0)	2 (13)	0 (0)	4 (21)	6 (11)	18 (7)
7	Testing engineers	0 (0)	1 (13)	0 (0)	2 (9)	0 (0)	4 (9)	2 (4)	0 (0)	9 (5)	0 (0)	0 (0)	0 (0)	1 (20)	3 (16)	4 (7)	13 (5)
−	Others	0 (0)	0 (0)	0 (0)	3 (13)	3 (19)	4 (9)	3 (6)	0 (0)	15 (8)	0 (0)	0 (0)	3 (20)	0 (0)	4 (21)	7 (13)	22 (9)
Total		4	18	48	39	26	79	86	0	337	18	1	20	7	35	81	418
No. of firms		3	8	28	23	16	47	48	21	194	14	1	15	5	19	54	248 (100)

14. TPP

(1) Participation in TPP

Regarding participation in TPP by the Thai Government, 44% of the firms reply “Should participate”, 3% “Should not participate” and the rest of 54% “Neither (Don’t know)”. *(Table 14-1)*

(Table 14-1) Participation in TPP

Unit: No. of firms and (%)

	Industry	Should participate		Should not participate		Neither		No. of firms
Manufacturing	Food	3	(43)	0	(0)	4	(57)	7
	Textiles	6	(46)	0	(0)	7	(54)	13
	Chemicals	27	(57)	1	(2)	19	(40)	47
	Steel/Non-ferrous metal	17	(43)	0	(0)	23	(58)	40
	General machinery	13	(54)	0	(0)	11	(46)	24
	Electrical/ electronic machinery	25	(40)	1	(2)	36	(58)	62
	Transportation machinery	33	(56)	2	(3)	24	(41)	59
	Others	10	(27)	0	(0)	27	(73)	37
	Manufacturing sector total	134	(46)	4	(1)	151	(52)	289
Non-manufacturing	Trading	34	(42)	3	(4)	44	(54)	81
	Retailing	3	(30)	0	(0)	7	(70)	10
	Finance/Insurance/Securities	9	(50)	0	(0)	9	(50)	18
	Construction/Civil engineering	8	(30)	1	(4)	18	(67)	27
	Transportation/Communication	14	(40)	1	(3)	20	(57)	35
	Others	13	(39)	5	(15)	15	(45)	33
	Non-manufacturing sector total	81	(40)	10	(5)	113	(55)	204
Total		215	(44)	14	(3)	264	(54)	493

(2) Advantages of participation in TPP (check-all-that-apply question)

Regarding advantages of participation in TPP by the Thai Government, the predominant response is “Cost reduction due to lower Customs duty in Thailand” (44%), followed by “Increase in access due to lower Customs duty imposed by counterparties” (39%) and “Simplification and increased transparency in procedures for trade and investment” (32%). The ratio of 25% says “No specific advantage”. *(Table 14-2)*

(Table 14-2) Advantages of participation in TPP (check-all-that-apply question)

Unit: No. of firms and (%)

Ranking		Manufacturing: Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Non-manufacturing: Trading	Retailing	Construction/ Civil engineering	Transportation/ communication	Others	Non-manufacturing sector total	Grand total
1	Cost reduction due to lower Customs duty in Thailand	4 (57)	6 (50)	22 (52)	14 (39)	10 (45)	33 (55)	35 (61)	14 (40)	138 (51)	28 (38)	7 (78)	5 (23)	11 (34)	13 (26)	64 (34)	202 (44)
2	Increase in access due to lower custom duty imposed by counterpart country	3 (43)	4 (33)	23 (55)	14 (39)	11 (50)	26 (43)	28 (49)	12 (34)	121 (45)	34 (47)	3 (33)	3 (14)	7 (22)	12 (24)	59 (32)	180 (39)
3	Simplification and increased transparency in procedures for trade/investment	3 (43)	3 (25)	11 (26)	13 (36)	8 (36)	19 (32)	23 (40)	10 (29)	90 (33)	31 (42)	3 (33)	4 (18)	11 (34)	8 (16)	57 (31)	147 (32)
4	No specific benefit	2 (29)	3 (25)	6 (14)	8 (22)	8 (36)	17 (28)	8 (14)	10 (29)	62 (23)	13 (18)	2 (22)	11 (50)	8 (25)	16 (32)	50 (27)	112 (25)
5	Increase in business opportunities due to deregulation on service/investment in counterpart countries	2 (29)	3 (25)	4 (10)	6 (17)	2 (9)	14 (23)	13 (23)	3 (9)	47 (17)	14 (19)	3 (33)	4 (18)	7 (22)	20 (40)	48 (26)	95 (21)
6	Deregulation due to revision of domestic laws (Labour law, Competition law, etc.), allowing more flexibility	0 (0)	1 (8)	3 (7)	7 (19)	4 (18)	7 (12)	6 (11)	6 (17)	34 (13)	9 (12)	0 (0)	2 (9)	4 (13)	10 (20)	25 (13)	59 (13)
7	Increase in access due to deregulation on service/investment in Thailand	1 (14)	2 (17)	3 (7)	4 (11)	0 (0)	9 (15)	6 (11)	2 (6)	27 (10)	7 (10)	2 (22)	3 (14)	3 (9)	11 (22)	26 (14)	53 (12)
8	Optimisation of intellectual property rights’ protection	0 (0)	0 (0)	5 (12)	0 (0)	3 (14)	2 (3)	0 (0)	1 (3)	11 (4)	2 (3)	1 (11)	0 (0)	2 (6)	7 (14)	12 (6)	23 (5)
－	Others	0 (0)	0 (0)	0 (0)	1 (3)	0 (0)	1 (2)	2 (4)	0 (0)	4 (1)	0 (0)	0 (0)	0 (0)	1 (3)	1 (2)	2 (1)	6 (1)
Total		15	22	77	67	46	128	121	58	534	138	21	32	54	98	343	877
No. of firms		7	12	42	36	22	60	57	35	271	73	9	22	32	50	186	457 (100)

(3) Disadvantages of participation in TPP (check-all-that-apply question)

Regarding disadvantages of participation in TPP by the Thai Government, the predominant response is "No specific disadvantages" (57%), followed by "Increase in competition due to lower Customs duty in Thailand" (25%) and "Increase in competition at the export destination due to lower Customs duty imposed by counterpart countries" (21%). *(Table 14-3)*

(Table 14-2) Disadvantages of participation in TPP (check-all-that-apply question)

Unit: No. of firms and (%)

Ranking		Manufacturing									Non-manufacturing						
		Food	Textiles	Chemicals	Steel/ Non-ferrous metal	General machinery	Electric/ Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retailing	Construction/ Civil engineering	Transportation/ communication	Others	Non-manufacturing sector total	Grand total
1	No specific disadvantages	5 (71)	7 (58)	20 (54)	19 (51)	17 (77)	25 (46)	18 (33)	20 (61)	131 (51)	33 (48)	5 (71)	14 (67)	20 (67)	35 (106)	107 (67)	238 (57)
2	Increase in competition due to lower Customs duty in Thailand	1 (14)	2 (17)	9 (24)	12 (32)	4 (18)	13 (24)	20 (37)	9 (27)	70 (27)	26 (38)	1 (14)	3 (14)	4 (13)	2 (6)	36 (23)	106 (25)
3	Increase in competition at the export destination due to lower Customs duty imposed by counterpart country	0 (0)	2 (17)	8 (22)	8 (22)	1 (5)	14 (26)	23 (43)	7 (21)	63 (25)	11 (16)	0 (0)	3 (14)	5 (17)	4 (12)	23 (14)	86 (21)
4	Increase in competition due to deregulation on service/investment in Thailand	1 (14)	0 (0)	2 (5)	2 (5)	1 (5)	10 (19)	10 (19)	5 (15)	31 (12)	11 (16)	1 (14)	2 (10)	5 (17)	4 (12)	23 (14)	54 (13)
5	Cost increase to handle adjustment and changes in the system and procedure for trade/investment	0 (0)	1 (8)	5 (14)	1 (3)	0 (0)	6 (11)	4 (7)	3 (9)	20 (8)	8 (12)	0 (0)	1 (5)	3 (10)	0 (0)	12 (8)	32 (8)
6	Tightening of regulation due to revision of domestic laws (labour law, Competition law, etc.), causing less flexibility	0 (0)	0 (0)	2 (5)	1 (3)	1 (5)	5 (9)	3 (6)	3 (9)	15 (6)	2 (3)	0 (0)	3 (14)	2 (7)	2 (6)	9 (6)	24 (6)
7	Less flexibility due to intellectual property rights protection, cost increase, etc.	0 (0)	0 (0)	3 (8)	0 (0)	1 (5)	0 (0)	3 (6)	2 (6)	9 (4)	1 (1)	0 (0)	0 (0)	0 (0)	0 (0)	1 (1)	10 (2)
8	Others	0 (0)	0 (0)	1 (3)	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)	2 (1)	1 (1)	0 (0)	0 (0)	0 (0)	2 (6)	3 (2)	5 (1)
Total		7	12	50	44	25	73	81	49	341	93	7	26	39	49	214	555
No. of firms		7	12	37	37	22	54	54	33	256	69	7	21	30	33	160	416 (100)