

# Summary

## Survey on Business Sentiment of Japanese Corporations in Thailand For the 2<sup>nd</sup> Half of 2021

### <Introduction of the Survey>

JCCB, Japanese Chamber of Commerce Bangkok, has been conducting survey on business sentiment of Japanese corporations in Thailand twice a year for 51 years, since 1971. This survey is the only comprehensive data reflecting the business situation of Japanese corporations in Thailand.

- The survey period was from November 30 to December 23, 2021.
- The questionnaires were handed out to 1,646 JCCB members, of which 541 companies responded (32.9%).
- Press release date: February 1, 2022

### 1. Business Sentiment Illustrated by DI (Diffusion Index)

- The business sentiment (DI) is 33 in the first half of 2021, 14 in the second half of 2021 (forecast), and 41 in the first half of 2022 (forecast). The DI forecast for the second half of 2021 (14) remains in the positive zone following the first half of 2021, although the figure became smaller compared to the first half of 2021, owing to several factors such as the impacts of the Covid-19, the global shortage of semiconductors, and rising prices of raw materials and parts.
- The DI forecast for the first half of 2022 became significantly more positive (14→41) as the responding Japanese firms expect the recovery of domestic demand and the resolution of raw material and parts shortage, following the improvement of the Covid-19 situation.

Industry	Current Survey			No. of firms	
	Result	Forecast			
	21H1	21H2	22H1		
Manufacturing	Food	-22	14	50	14
	Textile	36	36	29	14
	Chemical	50	8	48	50
	Steel/Non-ferrous metal	69	-12	49	41
	General machinery	0	8	55	27
	Electrical/Electronic machinery	32	31	35	45
	Transportation machinery	75	-3	50	63
	Others	26	7	51	43
	<b>Manufacturing sector total</b>	<b>43</b>	<b>8</b>	<b>47</b>	<b>297</b>
Non-manufacturing	Trading	50	30	36	85
	Retail	28	64	64	11
	Finance/Insurance/Securities	25	0	45	20
	Construction/Civil engineering	-33	-13	16	30
	Transportation/Communication	31	49	14	35
	Others	0	12	43	63
	<b>Non-manufacturing sector total</b>	<b>21</b>	<b>22</b>	<b>35</b>	<b>244</b>
<b>Total</b>	<b>33</b>	<b>14</b>	<b>41</b>	<b>541</b>	

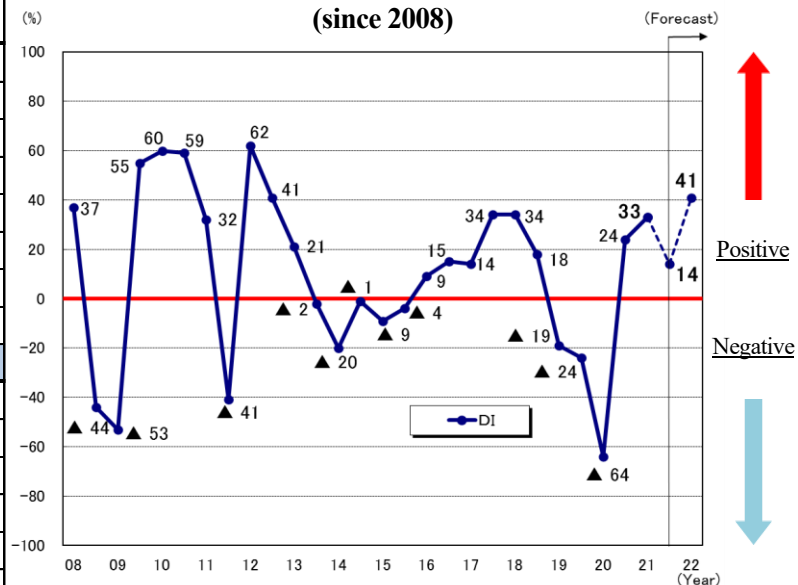
H1: The first half of the year, H2: The second half of the year

For the first half of 2022

“Improving” (53%), “No change” (35%), “Deteriorating” (12%)  
**53% - 12% = DI 41**

### Historical Change of DI

(since 2008)



### Business Sentiment

	2021		2022
	H1	H2	H1
Improving (%)	55	45	53
No change (%)	23	24	35
Deteriorating (%)	22	31	12
<b>(Ref.) DI (pt)</b>	<b>33</b>	<b>14</b>	<b>41</b>

### <What is DI?>

#### ◆ DI (Diffusion Index):

**A comparison of business performance in a six-month term with its previous term**

**DI = the percentage of those answered "improving" — (minus) the percentage of those answered "deteriorating"**

## 2. Capital Investment (Manufacturing Sector)

- The percentage of the firms anticipating “Increase” in their capital investments in 2022 is 35%, whereas 37% of them anticipated “No change” and 19% anticipated “Decrease”.

Industry	No. of firms and (%)				
	Increase	No change	Decrease	Undecided	Total
Food	3 (25)	5 (42)	3 (25)	1 (8)	12
Textile	3 (23)	6 (46)	2 (15)	2 (15)	13
Chemical	16 (33)	20 (42)	9 (19)	3 (6)	48
Steel/Non-ferrous metal	13 (32)	21 (51)	4 (10)	3 (7)	41
General machinery	14 (52)	9 (33)	0 (0)	4 (15)	27
Electrical/Electronic machinery	12 (27)	16 (36)	12 (27)	5 (11)	45
Transportation machinery	27 (44)	13 (21)	17 (27)	5 (8)	62
Others	13 (32)	16 (39)	7 (17)	5 (12)	41
<b>Manufacturing sector total</b>	<b>101 (35)</b>	<b>106 (37)</b>	<b>54 (19)</b>	<b>28 (10)</b>	<b>289</b>
Results from the Previous Survey (First Half of 2021)	124 (40)	98 (32)	58 (19)	27 (9)	307

(Note) Year-to-year comparison

## 3. Export and Potential Export Markets in the Future

### 3.1 Export Trend in the First Half of 2022 (January-June)

- The percentage of the firms anticipating “Increase” in their exports in the first half of 2022 totaled 40%, while 47% anticipated “No change” and 13% anticipated “Decrease”.

Industry	No. of firms and (%)									
	Increase			No change	Decrease			No. of firms		
More than 20%	10-20%	Less than 10%	Less than 10%		10-20%	More than 20%				
Food	6 (60)	0 (0)	0 (0)	6 (60)	3 (30)	1 (10)	1 (10)	0 (0)	0 (0)	10
Textile	6 (43)	1 (7)	3 (21)	2 (14)	5 (36)	3 (21)	2 (14)	1 (7)	0 (0)	14
Chemical	24 (59)	0 (0)	7 (17)	17 (41)	13 (32)	4 (10)	1 (2)	3 (7)	0 (0)	41
Steel/Non-ferrous metal	10 (31)	1 (3)	1 (3)	8 (25)	21 (66)	1 (3)	0 (0)	0 (0)	1 (3)	32
General machinery	6 (29)	1 (5)	3 (14)	2 (10)	12 (57)	3 (14)	0 (0)	3 (14)	0 (0)	21
Electrical/Electronic machinery	18 (44)	5 (12)	4 (10)	9 (22)	19 (46)	4 (10)	3 (7)	1 (2)	0 (0)	41
Transportation machinery	20 (36)	1 (2)	9 (16)	10 (18)	24 (43)	12 (21)	4 (7)	6 (11)	2 (4)	56
Others	15 (44)	4 (12)	4 (12)	7 (21)	12 (35)	7 (21)	5 (15)	1 (3)	1 (3)	34
<b>Manufacturing sector total</b>	<b>105 (42)</b>	<b>13 (5)</b>	<b>31 (12)</b>	<b>61 (24)</b>	<b>109 (44)</b>	<b>35 (14)</b>	<b>16 (6)</b>	<b>15 (6)</b>	<b>4 (2)</b>	<b>249</b>
Trading	27 (36)	2 (3)	10 (13)	15 (20)	40 (53)	9 (12)	7 (9)	1 (1)	1 (1)	76
Retail	4 (57)	1 (14)	0 (0)	3 (43)	3 (43)	0 (0)	0 (0)	0 (0)	0 (0)	7
Construction/Civil engineering	0 (0)	0 (0)	0 (0)	0 (0)	4 (100)	0 (0)	0 (0)	0 (0)	0 (0)	4
Others	2 (18)	0 (0)	1 (9)	1 (9)	7 (64)	2 (18)	2 (18)	0 (0)	0 (0)	11
<b>Non-manufacturing sector total</b>	<b>33 (34)</b>	<b>3 (3)</b>	<b>11 (11)</b>	<b>19 (19)</b>	<b>54 (55)</b>	<b>11 (11)</b>	<b>9 (9)</b>	<b>1 (1)</b>	<b>1 (1)</b>	<b>98</b>
<b>Total</b>	<b>138 (40)</b>	<b>16 (5)</b>	<b>42 (12)</b>	<b>80 (23)</b>	<b>163 (47)</b>	<b>46 (13)</b>	<b>25 (7)</b>	<b>16 (5)</b>	<b>5 (1)</b>	<b>347</b>
Results from the Previous Survey (First Half of 2021)	174 (46)	49 (13)	69 (18)	56 (15)	160 (42)	48 (13)	20 (5)	16 (4)	12 (3)	382

(Note) Year-to-year comparison

### 3.2 Potential Export Markets in the Future (multiple answers)

- “Vietnam” (45%) ranks first on the list of future potential export markets from Thailand, followed by “India” (28%), “Indonesia” (25%), and “Japan” (20%), respectively.

Country/ Region	No. of firms and (%)															Total	No. of firms
	Vietnam	India	Indonesia	Japan	China	USA	Europe	Philippines	Malaysia	Cambodia	Myanmar	Africa	Laos	Pakistan	Middle East		
Manufacturing	98 (41)	70 (29)	64 (27)	49 (21)	47 (20)	53 (22)	38 (16)	25 (10)	26 (11)	19 (8)	17 (7)	13 (5)	11 (5)	10 (4)	13 (5)	601	239
Non-manufacturing	51 (54)	25 (26)	18 (19)	17 (18)	15 (16)	8 (8)	3 (3)	12 (13)	9 (9)	14 (15)	8 (8)	5 (5)	4 (4)	5 (5)	2 (2)	214	95
<b>Total</b>	<b>149 (45)</b>	<b>95 (28)</b>	<b>82 (25)</b>	<b>66 (20)</b>	<b>62 (19)</b>	<b>61 (18)</b>	<b>41 (12)</b>	<b>37 (11)</b>	<b>35 (10)</b>	<b>33 (10)</b>	<b>25 (7)</b>	<b>18 (5)</b>	<b>15 (4)</b>	<b>15 (4)</b>	<b>15 (4)</b>	<b>815</b>	<b>334</b>
Current survey	1	2	3	4	5	6	7	8	9	10	11	12	13	13	13		
Last survey	1	2	3	6	4	5	10	10	8	7	9	16	12	17	14		
The survey before last	1	2	3	5	6	7	11	8	8	10	4	14	12	15	18		

(Note) Ranks up to top 15

## 4. Exchange Rates Used in Business Planning

### 4.1 Thai Baht/US Dollar

- Regarding the exchange rates used in business planning (Thai Baht/US Dollar), the predominant rates used are in a range between “No less than 33.0 but less than 33.5” (20.7%), followed by “No less than 32.5 but less than 33.0” (18.4%), with the median rate at 32.50 baht/US dollar. In the previous survey, however, the predominant answers fell in a range between “No less than 31.0 but less than 31.5” (24.7%), followed by “No less than 31.5 but less than 32.0” (17.5%), which implies that some companies have adjusted their exchange rate settings.

Industry Baht/US Dollar	Manufacturing									Non-manufacturing				Total	Total from the Previous Survey (First Half of 2021)	
	Food	Textile	Chemical	Steel/Non-ferrous metal	General machinery	Electrical/Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retail	Others	Non-manufacturing sector total			
No less than 29.0 but less than 29.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 29.5 but less than 30.0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0 (0.4)	7 (2.5)
No less than 30.0 but less than 30.5	0	0	1	0	1	2	2	3	9	2	0	0	2	11	4 (3)	43 (15.6)
No less than 30.5 but less than 31.0	0	2	3	1	1	2	2	3	14	3	0	0	3	17	6 (6)	40 (14.5)
No less than 31.0 but less than 31.5	1	2	3	0	1	4	6	3	20	5	2	0	7	27	10 (5)	68 (24.7)
No less than 31.5 but less than 32.0	1	2	2	2	4	3	2	3	19	5	0	0	5	24	9 (4)	48 (17.5)
No less than 32.0 but less than 32.5	2	2	5	2	2	5	7	2	27	12	2	1	15	42	16 (4)	25 (9.1)
No less than 32.5 but less than 33.0	3	3	4	5	2	7	3	7	34	9	0	4	13	47	18 (4)	36 (13.1)
No less than 33.0 but less than 33.5	1	1	7	9	2	11	8	4	43	10	0	0	10	53	20 (7)	6 (2.2)
No less than 33.5 but less than 34.0	0	0	5	4	1	1	6	2	19	5	0	1	6	25	9 (8)	1 (0.4)
No less than 34.0 but less than 34.5	0	0	1	1	1	0	2	0	5	2	0	0	2	7	2 (7)	1 (0.4)
No less than 34.5 but less than 35.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 35.0 but less than 35.5	0	0	0	0	0	0	0	1	1	2	0	0	0	2	0 (8)	0 (0.0)
No less than 35.5 but less than 36.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 36.0 but less than 36.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 36.5 but less than 37.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 37.0 but less than 37.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 37.5 but less than 38.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 38.0 but less than 38.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No. of firms	8	12	31	24	15	36	39	28	193	53	4	6	63	256		275
Average	32.13	31.74	32.34	32.74	32.11	32.14	32.42	32.00	32.26	32.25	31.70	32.62	32.25	32.25		Average 31.29
Median	32.25	31.85	32.50	33.00	32.00	32.50	32.50	32.25	32.50	32.40	31.70	32.50	32.40	32.50		Median 31.20
Mode	32.50	32.50	33.00	33.00	31.50	33.00	33.50	32.50	32.50	33.00	#N/A	32.50	32.50	32.50		Mode 31.50

(Note) Median is the value located at the center of the data distribution, which would exclude any deviation resulting from the number of respondents or the irregularly low/high values as much as possible. Mode is the value most cited by the respondents and #N/A (Not Applicable) indicates that all respondents' values differ.

### 4.2 Japanese Yen/Thai Baht

- Regarding the exchange rates used in business planning (Japanese Yen/Thai Baht), the predominant rates used are in a range between “No less than 3.4 but less than 3.5” (43.2%), followed by “No less than 3.5 but less than 3.6” (31.1%), with the median rate at 3.40 yen/baht. In the previous survey, however, the predominant answers fell in a range between “No less than 3.5 but less than 3.6” (48.0%), followed by “No less than 3.4 but less than 3.5” (37.5%), which implies that some companies have adjusted their exchange rate settings.

Industry Yen/Baht	Manufacturing									Non-manufacturing				Total	Total from the Previous Survey (First Half of 2021)	
	Food	Textile	Chemical	Steel/Non-ferrous metal	General machinery	Electrical/Electronic machinery	Transportation machinery	Others	Manufacturing sector total	Trading	Retail	Others	Non-manufacturing sector total			
No less than 2.6 but less than 2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 2.7 but less than 2.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 2.8 but less than 2.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 2.9 but less than 3.0	0	0	0	0	0	0	3	1	4	0	0	0	0	4	1 (2)	1 (0.3)
No less than 3.0 but less than 3.1	0	0	1	0	1	0	1	1	4	1	0	0	1	5	1 (5)	5 (1.3)
No less than 3.1 but less than 3.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 3.2 but less than 3.3	0	1	2	1	7	1	1	2	15	3	0	0	3	18	5 (4)	11 (3.0)
No less than 3.3 but less than 3.4	1	2	6	3	4	7	10	1	34	12	3	3	18	52	15 (7)	32 (8.6)
No less than 3.4 but less than 3.5	4	6	17	20	6	15	25	18	111	21	3	8	32	143	43 (2)	139 (37.5)
No less than 3.5 but less than 3.6	4	3	11	6	3	16	8	11	62	35	2	4	41	103	31 (1)	178 (48.0)
No less than 3.6 but less than 3.7	0	0	0	0	0	0	2	0	2	2	0	0	2	4	1 (2)	4 (1.1)
No less than 3.7 but less than 3.8	0	0	1	0	0	0	0	0	1	1	0	0	1	2	0 (6)	1 (0.3)
No less than 3.8 but less than 3.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 3.9 but less than 4.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No less than 4.0 but less than 4.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 (0.0)	0 (0.0)
No. of firms	9	12	38	30	21	39	50	34	233	75	8	15	98	331		371
Average	3.43	3.39	3.40	3.40	3.31	3.42	3.36	3.39	3.39	3.43	3.39	3.41	3.42	3.40		Average 3.43
Median	3.40	3.40	3.40	3.40	3.30	3.40	3.40	3.40	3.40	3.50	3.40	3.40	3.40	3.40		Median 3.40
Mode	3.50	3.40	3.40	3.40	3.20	3.50	3.40	3.40	3.40	3.50	3.30	3.40	3.50	3.40		Mode 3.50

(Note) Median is the value located at the center of the data distribution, which would exclude any deviation resulting from the number of respondents or the irregularly low/high values as much as possible. Mode is the value most cited by the respondents and #N/A (Not Applicable) indicates that all respondents' values differ.

## 5. Challenges for Corporate Management (multiple answers)

- The predominant corporate challenge for Japanese companies, is “Surging prices of raw materials and parts” (65%), followed by “Severe competition with competitors” (64%), “Increase in logistics cost” (44%), and “Increase in total labor cost” (34%).
- Another popular choice for firms in the manufacturing sector is “Fluctuation of foreign exchange rates” (27%), while many companies in the non-manufacturing sector also cited “Enhancement of business efficiency through digitalization” (25%) as one of the challenges.

		No. of firms and (%)			
Previous survey	Current survey	Challenges for Corporate Management	Manufacturing	Non-manufacturing	Total
2	1	Surging prices of raw materials and parts	245 (85)	100 (42)	345 (65)
1	2	Severe competition with competitors	183 (63)	157 (65)	340 (64)
–	3	Increase in logistics cost	159 (55)	76 (32)	235 (44)
4	4	Increase in total labor cost	107 (37)	75 (31)	182 (34)
3	5	Measures to address the impacts of the Covid-19	104 (36)	71 (30)	175 (33)
6	6	Changes in products/users' needs	72 (25)	56 (23)	128 (24)
10	7	Fluctuation of foreign exchange rates	79 (27)	44 (18)	123 (23)
8	8	Enhancement of business efficiency through digitalization	61 (21)	59 (25)	120 (23)
5	9	Sluggish domestic demand	50 (17)	55 (23)	105 (20)
9	10	Quality management	65 (22)	36 (15)	101 (19)
Total			1,454	991	2,445
No. of firms			289	240	529

(Note) Ranks up to top 10

## 6. Requests to the Thai Government

### 6.1 Requests to the Thai Government (multiple answers)

- “Implementation of measures to address the impacts of the Covid-19” (50%) is most requested by the responding companies, followed by “Promotion of economic stimulus measures (e.g. public infrastructure development)” (45%) and “Customs-related systems and their implementation” (38%).
- “Stabilization of foreign exchange rates” (31%) and “Implementation of flood prevention measures” (31%) are also popular among the manufacturing sector, while “Implementation of tax-related systems (e.g. Corporate Income Tax)” (33%) is another predominant request among the non-manufacturing sector.

		No. of firms and (%)			
Previous survey	Current survey	Requests to the Thai Government	Manufacturing	Non-manufacturing	Total
1	1	Implementation of measures to address the impacts of the Covid-19	161 (56)	104 (44)	265 (50)
2	2	Promotion of economic stimulus measures (e.g. public infrastructure development)	135 (47)	101 (42)	236 (45)
3	3	Customs-related systems and their implementation	123 (43)	78 (33)	201 (38)
4	4	Implementation of tax-related systems (e.g. Corporate Income Tax)	78 (27)	79 (33)	157 (30)
8	5	Development of transportation infrastructure in the Bangkok metropolitan area	76 (26)	77 (32)	153 (29)
7	6	Stabilization of foreign exchange rates	89 (31)	50 (21)	139 (26)
15	7	Implementation of flood prevention measures	91 (31)	42 (18)	133 (25)
6	8	Promotion of economic ties (e.g. FTA, EPA, etc.)	62 (21)	41 (17)	103 (20)
5	8	Relaxation of the Foreign Business Act	41 (14)	62 (26)	103 (20)
11	10	Improvement of education/human resource development	57 (20)	35 (15)	92 (17)
Total			1,197	920	2,117
No. of firms			289	238	527

(Note) Ranks up to top 10

## 6.2 Recent Improvement in Investment Environment

### (Policy Evaluation, multiple answers)

- The policy area that most of the Japanese firms recognized some improvement recently is the “Measures to address the impacts of the Covid-19” (38%), followed by “Development of transportation infrastructure in the Bangkok metropolitan area” (31%), “Development of communication infrastructure” (17%), “Promotion of economic stimulus measures (e.g. public infrastructure development)” (16%), and “Work permit/visa-related issues” (15%).

		No. of firms and (%)			
Previous survey	Current survey	Recent Policy Improvement	Manufacturing	Non-manufacturing	Total
2	1	Measures to address the impacts of the Covid-19	96 (39)	71 (38)	167 (38)
1	2	Development of transportation infrastructure in the Bangkok metropolitan area	68 (28)	69 (37)	137 (31)
4	3	Development of communication infrastructure	36 (15)	38 (20)	74 (17)
3	4	Promotion of economic stimulus measures (e.g. public infrastructure development)	35 (14)	36 (19)	71 (16)
5	5	Work permit/visa-related issues	42 (17)	23 (12)	65 (15)
10	6	Implementation of flood prevention measures	30 (12)	16 (8)	46 (11)
8	7	Promotion of economic ties (e.g. FTA, EPA, etc.)	26 (11)	16 (8)	42 (10)
6	8	Maintenance of public security and safety	21 (9)	17 (9)	38 (9)
12	9	Customs-related systems and their implementation	22 (9)	10 (5)	32 (7)
7	10	Stabilization of foreign exchange rates	19 (8)	11 (6)	30 (7)
Total			482	365	847
No. of firms			247	189	436

(Note) Ranks up to top 10

## 7. The Impacts of the Covid-19

### 7.1 The Impact on Business Performance

- Regarding the impact of the Covid-19 on business performance, most companies projected that there will be “Negative impact on sales (at least 5% but less than 20%)” (35%), while some expected “No impact” (18%), whereas some believed there will be “Negative impact on sales (at least 20% but less than 50%)” (15%).

		No. of firms and (%)		
Ranking	Impact on Business Performance	Manufacturing	Non-manufacturing	Total
1	Negative impact on sales (at least 5% but less than 20%)	108 (38)	77 (32)	185 (35)
2	No impact	52 (18)	45 (19)	97 (18)
3	Negative impact on sales (at least 20% but less than 50%)	42 (15)	38 (16)	80 (15)
4	Negative impact on sales (at least 1% but less than 5%)	46 (16)	33 (14)	79 (15)
5	Positive impact	19 (7)	20 (8)	39 (7)
6	Unable to predict at the moment	18 (6)	16 (7)	34 (6)
7	Negative impact on sales (50% or more)	2 (1)	9 (4)	11 (2)
No. of firms		287	238	525

(Reference) The result of the Survey on Business Sentiment of Japanese Corporations in Thailand for the First Half of 2021 (released on June 30, 2021)

- |   |     |
|---|-----|
| ① Negative impact on sales (at least 5% but less than 20%)  | 40% |
| ② Negative impact on sales (at least 20% but less than 50%) | 17% |
| ③ No impact   | 12% |

The result of the Survey on Business Sentiment of Japanese Corporations in Thailand for the Second Half of 2020 (released on January 26, 2021)

- |   |     |
|---|-----|
| ① Negative impact on sales (at least 20% but less than 50%) | 39% |
| ② Negative impact on sales (at least 5% but less than 20%)  | 37% |
| ③ No impact   | 9%  |

## 7.2 Outlook on Future Business Activities

- Having considered the impacts of the Covid-19, most of the responding companies indicated that they will “Maintain current business size” (65%) while 28% think they might “Expand the business”. However, 4% hinted that they may “Downsize the business”.

					No. of firms and (%)	
Ranking	Outlook on Future Business Activities	Manufacturing	Non-manufacturing	Total		
1	Maintain current business size	198 (69)	143 (60)	341 (65)		
2	Expand the business	70 (24)	78 (33)	148 (28)		
3	Downsize the business	7 (2)	12 (5)	19 (4)		
4	Expand the business (relocation from other countries to Thailand)	11 (4)	4 (2)	15 (3)		
5	Downsize the business (relocation from Thailand to other countries)	1 (0)	1 (0)	2 (0)		
No. of firms		287	238	525		

## 7.3 Interest in Investing in the EEC

- Regarding the company’s interest in investing in the EEC, 11 companies (2%) indicated that “There is a concrete plan to invest in the EEC within three years”, while 204 companies (40%) said “There is an interest in investing in the EEC although there is no concrete investment plan” and 289 companies (57%) answered “Neither”.

					No. of firms and (%)	
Industry	There is a concrete plan to invest in the EEC within three years	There is an interest in investing in the EEC although there is no concrete investment plan	Neither	No. of firms		
Manufacturing	7 (3)	115 (42)	153 (56)	275		
Non-manufacturing	4 (2)	89 (39)	136 (59)	229		
Total	11 (2)	204 (40)	289 (57)	504		
Total from the Survey for the First Half of 2019	17 (3)	64 (13)	411 (84)	492		

## 7.4 Business Fields in Which Companies Are Interested in Making Investment (multiple answers)

- When making investment in the EEC, “Next-generation automotive/parts” (49%) is the most popular business field among the responding companies, followed by “Automation/robotics” (19%) and “Manufacturing (excluding the EEC’s targeted industries)” (18%).

					No. of firms and (%)	
Ranking	Business Fields in Which Companies Are Interested in Making Investment	Manufacturing	Non-manufacturing	Total		
1	Next-generation automotive/parts	143 (58)	75 (38)	218 (49)		
2	Automation/robotics	55 (22)	29 (15)	84 (19)		
3	Manufacturing (excluding the EEC’s targeted industries)	66 (27)	15 (8)	81 (18)		
4	Digital	37 (15)	40 (20)	77 (17)		
5	Smart electronics	46 (19)	26 (13)	72 (16)		
6	Agriculture/biotechnology	21 (9)	41 (21)	62 (14)		
7	Biofuel/biochemical	22 (9)	30 (15)	52 (12)		
8	Medical/comprehensive healthcare	19 (8)	24 (12)	43 (10)		
9	Aviation/logistics	16 (6)	25 (13)	41 (9)		
10	Civil engineering/architecture/construction	9 (4)	30 (15)	39 (9)		
Total		506	486	992		
No. of firms		247	199	446		

(Note) Ranks up to top 10

## 7.5 Requests Concerning Investment Facilitation (multiple answers)

- As for the company's requests concerning investment facilitation, “Expansion of the scope of businesses eligible for the privilege programs” (45%) is the respondents' top choice, followed by “Simplification of application procedures for the privilege programs” (26%) and “Regulatory relaxation” (22%).

Ranking	Requests Concerning Investment Facilitation	No. of firms and (%)				
		Manufacturing		Non-manufacturing		Total
1	Expansion of the scope of businesses eligible for the privilege programs	120	(54)	57	(33)	177 (45)
2	Simplification of application procedures for the privilege programs	65	(29)	36	(21)	101 (26)
3	Regulatory relaxation	40	(18)	48	(28)	88 (22)
4	Provision of additional privileges for companies already operating in the EEC	49	(22)	23	(13)	72 (18)
5	Provision of sufficient information such as announcing a clear schedule of the EEC development plan	37	(17)	34	(20)	71 (18)
6	Supply and development of human resources	28	(13)	23	(13)	51 (13)
7	Development of transportation infrastructure such as railways and highways	22	(10)	24	(14)	46 (12)
8	Development of communication infrastructure	8	(4)	10	(6)	18 (5)
-	Others	16	(7)	23	(13)	39 (10)
Total		385		278		663
No. of firms		221		174		395

## 8. Automation

### 8.1 Implementation of Automation

- In response to a question regarding the status of the company's implementation of automation system, 25% of the firms indicated that “The company has already implemented automation” and 34% stated that “The company has not implemented automation but is currently considering doing so” whereas 41% said that “There is neither concrete effort nor plan”.

Industry	No. of firms and (%)				No. of firms
	The company has already implemented automation	The company has not implemented automation but is currently considering doing so	There is neither concrete effort nor plan		
Manufacturing	94 (33)	103 (36)	86 (30)		283
Non-manufacturing	36 (16)	69 (30)	123 (54)		228
Total	130 (25)	172 (34)	209 (41)		511

## 8.2 Perception towards Automation (multiple answers)

- Regarding the company's perception towards automation, the most commonly held opinion among the survey respondents is that "The company considers that automation is necessary and will accelerate its implementation in the future" (44%), followed by "The company will consider implementing automation depending on factors such as the rate of labor wage increase in the future" (30%) and "The company sees that automation is unnecessary at this moment" (20%).

					No. of firms and (%)		
Ranking	Perception towards Automation	Manufacturing		Non-manufacturing		Total	
1	The company considers that automation is necessary and will accelerate its implementation in the future	130	(47)	89	(41)	219	(44)
2	The company will consider implementing automation depending on factors such as the rate of labor wage increase in the future	110	(40)	41	(19)	151	(30)
3	The company sees that automation is unnecessary at this moment	36	(13)	61	(28)	97	(20)
4	There are not enough personnel such as technical experts	51	(18)	23	(11)	74	(15)
5	The company is concerned about an increase of running costs such as maintenance cost	35	(13)	19	(9)	54	(11)
6	Cost of introducing the system is high and there is no spare funds	31	(11)	16	(7)	47	(9)
7	While the company sees the necessity of automation, it does not know where it should start	20	(7)	24	(11)	44	(9)
8	There is not enough space to accommodate installation of large-sized equipment	10	(4)	1	(0)	11	(2)
-	Others	5	(2)	13	(6)	18	(4)
Total		428		287		715	
No. of firms		277		219		496	

## 8.3 Timing for the Implementation of Automation

- When asked about the timing for the company's implementation of automation in case that it decided to move ahead, 33% of the companies responded that they are "Uncertain", however, 24% said that they have "Already implemented automation" and another 24% has planned to implement automation "Within three years".

					No. of firms and (%)		
Ranking	Timing for the Implementation of Automation	Manufacturing		Non-manufacturing		Total	
1	Uncertain	66	(24)	94	(45)	160	(33)
2	Already implemented automation	82	(30)	34	(16)	116	(24)
2	Within three years	66	(24)	50	(24)	116	(24)
4	Within three to five years	33	(12)	12	(6)	45	(9)
5	Within five to ten years	16	(6)	8	(4)	24	(5)
6	In the next ten years or longer	6	(2)	3	(1)	9	(2)
-	Others	4	(1)	7	(3)	11	(2)
No. of firms		273		208		481	



## 9. Activities Related to Carbon Neutrality

### 9.1 The Company's Policy Concerning Carbon Neutrality

- In response to a question regarding whether the local branch of the company has a policy concerning carbon neutrality, most firms indicated that “A policy is expected to be considered based on the headquarters' instruction, trading partner's request, etc.” (42%). Meanwhile, 36% admitted that “Nothing has been decided at the moment” and 11% stated that “A concrete policy has not been set but it will be decided soon”.

Ranking	Policy Concerning Carbon Neutrality	No. of firms and (%)					
		Manufacturing		Non-manufacturing		Total	
1	A policy is expected to be considered based on the headquarters' instruction, trading partner's request, etc.	126	(44)	89	(38)	215	(42)
2	Nothing has been decided at the moment	70	(25)	116	(50)	186	(36)
3	A concrete policy has not been set but it will be decided soon	45	(16)	14	(6)	59	(11)
4	A concrete policy has been decided	44	(15)	13	(6)	57	(11)
No. of firms		285		232		517	

### 9.2 Opinion towards Efforts to Achieve Carbon Neutrality (multiple answers)

- Regarding the company's opinion towards efforts to achieve carbon neutrality, “Reducing greenhouse gas emissions according to standards specified by environmental laws/regulations at that time” (35%) is the most popular choice among the respondents, followed by “Reducing greenhouse gas emissions at an extent that is possible within the scope of daily business activities” (31%) and “Reducing greenhouse gas emissions according to standards required by trading partners” (28%).

Ranking	Opinion towards Efforts to Achieve Carbon Neutrality	No. of firms and (%)					
		Manufacturing		Non-manufacturing		Total	
1	Reducing greenhouse gas emissions according to standards specified by environmental laws/regulations at that time	115	(41)	62	(27)	177	(35)
2	Reducing greenhouse gas emissions at an extent that is possible within the scope of daily business activities	77	(27)	82	(36)	159	(31)
3	Reducing greenhouse gas emissions according to standards required by trading partners	85	(30)	55	(24)	140	(28)
4	Reducing greenhouse gas emissions in an amount that exceeds standards specified by environmental laws/regulations at that time or standards required by trading partners	74	(26)	34	(15)	108	(21)
5	Entering a business that contributes to greenhouse gas reduction and positioning it as a new core business	21	(7)	29	(13)	50	(10)
6	The company does not feel the necessity of taking any initiative in particular	15	(5)	26	(11)	41	(8)
7	The company does not feel the necessity of taking additional initiatives since the current efforts are adequate	4	(1)	4	(2)	8	(2)
-	Others	2	(1)	7	(3)	9	(2)
Total		393		299		692	
No. of firms		281		228		509	

### 9.3 Activities Related to Carbon Neutrality (multiple answers)

- The Japanese companies' top choice of carbon neutrality-related activities is “Replacing or upgrading to energy-saving equipment” (40%), followed by “Introducing renewable energy such as generating electricity with solar energy” (34%) and “Promoting proper disposal and reduction of industrial waste/recycling of recyclable waste” (32%).

Ranking	Activities Related to Carbon Neutrality	No. of firms and (%)		
		Manufacturing	Non-manufacturing	Total
1	Replacing or upgrading to energy-saving equipment	140 (53)	41 (23)	181 (40)
2	Introducing renewable energy such as generating electricity with solar energy	127 (48)	25 (14)	152 (34)
3	Promoting proper disposal and reduction of industrial waste/recycling of recyclable waste	89 (33)	54 (30)	143 (32)
4	Grasping the amount of the company's greenhouse gas emissions	84 (32)	19 (10)	103 (23)
5	Organizing/participating in seminars or webinars concerning approaches towards carbon neutrality	59 (22)	38 (21)	97 (22)
5	Optimizing the operation of equipment	77 (29)	20 (11)	97 (22)
7	Appointing a person in charge or establishing a department responsible for environmental activities	71 (27)	23 (13)	94 (21)
8	Setting behavioral targets related to greenhouse gas	64 (24)	17 (9)	81 (18)
8	Using raw materials and parts with low environmental impact	51 (19)	30 (16)	81 (18)
10	Introducing electric cars/fuel cell electric cars/hybrid cars	26 (10)	23 (13)	49 (11)
Total		805	319	1,124
No. of firms		266	182	448

(Note) Ranks up to top 10

### 9.4 Issues Surrounding Efforts to Achieve Carbon Neutrality (multiple answers)

- On the other hand, the top issue affecting the firm's efforts to achieve carbon neutrality is that they are “Unable to pass through costs to prices of products/services” (40%). Moreover, they are also “Unable to foresee results that could offset the costs” (39%) and indicated that they have “Insufficient specialized knowledge and personnel, including know how for the implementation” (37%).

Ranking	Issues Surrounding Efforts to Achieve Carbon Neutrality	No. of firms and (%)		
		Manufacturing	Non-manufacturing	Total
1	Unable to pass through costs to prices of products/services	131 (48)	56 (29)	187 (40)
2	Unable to foresee results that could offset the costs	125 (46)	56 (29)	181 (39)
3	Insufficient specialized knowledge and personnel, including know how for the implementation	106 (39)	66 (34)	172 (37)
4	Not knowing the level to which the company needs to take actions	91 (33)	71 (36)	162 (35)
5	The necessity to develop technology that is difficult to carry out by one company alone	42 (15)	22 (11)	64 (14)
6	The priority is low	23 (8)	37 (19)	60 (13)
7	Lack of government's systems/regulations and policies (such as electricity trade)	29 (11)	15 (8)	44 (9)
8	Unable to bear the costs due to inadequate funding	20 (7)	21 (11)	41 (9)
9	Building consensus within the company	16 (6)	16 (8)	32 (7)
10	Unable to allocate time	13 (5)	9 (5)	22 (5)
Total		622	399	1,021
No. of firms		273	196	469

(Note) Ranks up to top 10