

This study aims at understanding challenges and current trends of R&D internationalization by Japanese firms to gain insights on the way managers can

The questionnaire consists of four parts.

Part One asks for your views on the roles played by your R&D center and the headquarters.

Part Two asks you to describe various interactions your R&D center has with other units *within* the firm.

Part Three asks you to describe various interactions your R&D center has with other units *outside* the firm.

Part Four asks for the general characteristics of your R&D center.

Throughout the questionnaire we use the following terms:

“R&D” refers to a wide variety of tasks, including basic research, applied research, new product development, local adaptation of existing products, and design.

“The headquarters” refers to your counterpart at the parent company. If your R&D center reports to the corporate, it refers to the corporate R&D headquarters. If your R&D center reports to a business unit, it refers to the divisional R&D center.

If you kindly complete this questionnaire, we will send you, upon completion of the survey, by e-mail a summary of our results as well as a report of your choice, as listed at the end of this questionnaire.

Please accept our deep appreciation for your kind help in completing this questionnaire.

Yours Sincerely,

【Research body】

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PART ONE: The Roles of Your R&D Center and the Headquarters

This part is about your views on the relationship between your R&D center and the headquarters.

- 1.1 For each decision item listed below, please indicate the extent to which your R&D center or the headquarters normally decided, as **of the year 2000*** and **in the past few years**, respectively.
*(*If your R&D center was not yet founded as of the year 2000, please answer about the past few years only.)*

	Your R&D center decides 1	←	2	3	4	→	The headquarters decides 5
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		Around Year 2000					Past few years				
a	The selection of research projects in your center	1	2	3	4	5	1	2	3	4	5
b	The issue of whom to recruit as new local scientists/ engineers	1	2	3	4	5	1	2	3	4	5
c	The performance appraisal of your scientists/ engineers	1	2	3	4	5	1	2	3	4	5
d	The promotion decision for your local scientists/ engineers	1	2	3	4	5	1	2	3	4	5
e	The approval for conference presentations by your local scientists/ engineers	1	2	3	4	5	1	2	3	4	5
f	The approval for publication by your local scientists/ engineers	1	2	3	4	5	1	2	3	4	5
g	The acceptance of trainees from outside the company	1	2	3	4	5	1	2	3	4	5
h	The acceptance of trainees from other sections of the company	1	2	3	4	5	1	2	3	4	5
i	The budgetary decision for your R&D center	1	2	3	4	5	1	2	3	4	5
j	The decision for your R&D center to collaborate with external organizations	1	2	3	4	5	1	2	3	4	5

1.2. Regarding the relationship between your R&D center and the headquarters, please indicate the extent to which you agree or disagree with each statement below.

Strongly disagree ← 1 2 3 4 5 → Strongly agree

		Around Year 2000					Past few years				
a	Our R&D center receives enough information from the headquarters.	1	2	3	4	5	1	2	3	4	5
b	Our R&D center sends enough information to the headquarters.	1	2	3	4	5	1	2	3	4	5
c	The headquarters' expectations vis-à-vis our R&D center are clear.	1	2	3	4	5	1	2	3	4	5
d	I can participate in the firm's overall decision-making process in R&D.	1	2	3	4	5	1	2	3	4	5
e	Managers of the headquarters can participate in the decision-making process at our R&D center.	1	2	3	4	5	1	2	3	4	5

PART TWO: Interactions with Other Units within the Firm.

2.1. Please indicate the frequency of the following interactions with the headquarters, as of the year 2000 and in the past few years, respectively.

<div> <div>Almost never</div> <div>←</div> <div>2</div> <div>3</div> <div>4</div> <div>→</div> <div>Very frequent</div> </div>										
1	2	3	4	5						
					Around Year 2000			Past few years		
a	Joint project with the headquarters R&D unit				1	2	3	4	5	
b	Transfer of technology/ knowledge from the headquarters to your R&D center				1	2	3	4	5	
c	Transfer of technology/ knowledge from your R&D center to the headquarters				1	2	3	4	5	
d	Transfer of researchers and engineers from your R&D center to the headquarters				1	2	3	4	5	
e	Transfer of researchers and engineers from the headquarters to your R&D center				1	2	3	4	5	
f	Information exchanges with non-R&D units at the headquarters				1	2	3	4	5	

2.2. Please indicate the frequency of the following interactions with other overseas* R&D units within your firm, as of the year 2000 and the past few years, respectively. (Here “overseas” means any country other than your parent company’s home country.)

<div> <div>Almost never</div> <div>←</div> <div>2</div> <div>3</div> <div>4</div> <div>→</div> <div>Very frequent</div> </div>										
1	2	3	4	5						
					Around Year 2000			Past few years		
a	Joint project with other overseas R&D units within your firm				1	2	3	4	5	
b	Transfer of technology/ knowledge from other overseas R&D units within your firm to your R&D center				1	2	3	4	5	
c	Transfer of technology/ knowledge from your R&D center to other overseas R&D units within your firm				1	2	3	4	5	
d	Transfer of researchers and engineers from your R&D center to other overseas R&D units within your firm				1	2	3	4	5	
e	Transfer of researchers and engineers from other overseas R&D units within your firm to your R&D center				1	2	3	4	5	

PART THREE: Interactions with Other Units outside the Firm.

3.1. Please indicate the extent to which your center has interacted with the following external organizations located in the host country (i.e. the country where your R&D center is located), as of the year 2000 and in the past few years, respectively.

<div> <div>Almost never</div> <div>←</div> <div>2</div> <div>3</div> <div>4</div> <div>→</div> <div>Very frequently</div> </div>										
1	2	3	4	5						
					Around Year 2000			Past few years		
a	Joint project with universities				1	2	3	4	5	
b	Recruiting the researchers from the universities				1	2	3	4	5	

c	Sending the researchers to the universities	1	2	3	4	5	1	2	3	4	5
d	Collaborating with the suppliers	1	2	3	4	5	1	2	3	4	5
e	Collaborating with the venture firms	1	2	3	4	5	1	2	3	4	5
f	Collaborating with the competitors	1	2	3	4	5	1	2	3	4	5
g	Listening to the voice of the customers	1	2	3	4	5	1	2	3	4	5

- 3.2. Please indicate the extent to which your center has interacted with the following external organizations located in other foreign countries (i.e. the countries other than where your R&D center and the headquarters are located), as of the year 2000 and in the past few years, respectively.

Almost never 1	←	2	3	4	→	Very frequently 5
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		Around Year 2000					Past few years				
a	Joint project with universities	1	2	3	4	5	1	2	3	4	5
b	Recruiting the researchers from the universities	1	2	3	4	5	1	2	3	4	5
c	Sending the researchers to the universities	1	2	3	4	5	1	2	3	4	5
d	Collaborating with the suppliers	1	2	3	4	5	1	2	3	4	5
e	Collaborating with the venture firms	1	2	3	4	5	1	2	3	4	5
f	Collaborating with the competitors	1	2	3	4	5	1	2	3	4	5
g	Listening to the voice of the customers	1	2	3	4	5	1	2	3	4	5

PART FOUR: General Characteristics of your R&D Center

4.1. Please provide us with your impression as to the following capabilities of your R&D center and of the headquarters, as of around year 2000 and in the past few years, respectively.

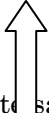
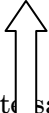
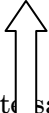
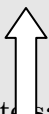
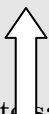
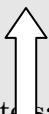
Strongly disagree	←	2	3	4	→	Strongly agree
1						5

		Around Year 2000					Past few years				
a	The researchers/engineers in our R&D center understand the current trend of the state-of-the-art science and technology.	1	2	3	4	5	1	2	3	4	5
b	The researchers/engineers in our R&D center are good at absorbing the state-of-the-art technologies in their own areas of specialization.	1	2	3	4	5	1	2	3	4	5
c	The researchers/engineers in our R&D center understand the way to use the state-of-the-art technologies within the firm.	1	2	3	4	5	1	2	3	4	5
d	The researchers/engineers in our R&D center understand what kind of state-of-the-art technologies are most useful within the firm.	1	2	3	4	5	1	2	3	4	5
e	The headquarters' side understands the current trend of the state-of-the-art science and technology.	1	2	3	4	5	1	2	3	4	5
f	The headquarters' side is good at absorbing the state-of-the-art technologies in their own areas of specialization.	1	2	3	4	5	1	2	3	4	5
g	The headquarters' side understands the way to use the state-of-the-art technologies within the firm.	1	2	3	4	5	1	2	3	4	5
h	The headquarters' side understands what kind of state-of-the-art technologies are most useful within the firm.	1	2	3	4	5	1	2	3	4	5

4.2. Please answer the following questions.

A	Which industry are you in? (Please choose any number of responses)	1. Chemical 2. Pharmaceutical 3. Steel 4. Machinery 5. Electronics 6. Automobile (vehicle) 7. Precision 8. Telecommunication 9. Other (Specify)
B	Year in which your R&D center was founded	Year
C	Total number of R&D staff in your center (excluding the administrative staff)	1. 0 ~ 19 people 2. 20 ~ 39 people 3. 40 ~ 59 people 4. 60 ~ 79 people 5. 80 people ~
D	Percentage of doctorate holders among the R&D staff in your center (excluding the administrative staff) (Please choose one)	1. 0~ less than 20% 2. 20%~ less than 40% 3. 40%~ less than 60% 4. 60%~ less than 80% 5. 80%~ 100%
E	Reporting structure: Which of the following units is your R&D center reporting to? (Please choose one)	1. To top management 2. To R&D headquarters 3. To business unit 4. To regional headquarters
F	Main tasks of your R&D center (Please choose any number of responses)	1. Basic research 2. Applied research (including pre-clinical / clinical research) 3. Innovative product development 4. Local adaptation of existing products 5. Design 6. System development 7. Information gathering

G	Main objectives of your R&D center (Please choose any number of responses)	1. Creating the state-of-the-art knowledge and technology 2. Obtaining knowledge and technology which the headquarters lacks 3. Obtaining knowledge and technology which the home country lacks 4. Localizing the headquarters' knowledge and technology
H	Mission of your center <u>(at the time of founding)</u> (Please choose one)	1. Start-up operations 2. Innovation for local market 3. Innovation for global market
I	Mission of your center <u>(around year 2000)</u> (Please choose one)	1. Start-up operations 2. Innovation for local market 3. Innovation for global market
J	Mission of your center <u>(today)</u> (Please choose one)	1. Start-up operations 2. Innovation for local market 3. Innovation for global market
K	Nationality of the head of the R&D center	
L	Percentage of Japanese staff in your center	1. 0～ less than 20% 2. 20%～ less than 40% 3. 40%～ less than 60% 4. 60%～ less than 80% 5. 80%～ 100%
M	Mode of founding your R&D center	1. Greenfield 2. Acquisition (HQ owns _____ %)
N	The share of projects that <i>met their time schedule</i> within your center (with respect to last year)	1. 0～ less than 20% 2. 20%～ less than 40% 3. 40%～ less than 60% 4. 60%～ less than 80% 5. 80%～ 100%

O	The share of projects that <i>met almost completely the planned project goals</i> within your center (with respect to last year)	1. 0~ less than 20% 2. 20%~ less than 40% 3. 40%~ less than 60% 4. 60%~ less than 80% 5. 80%~ 100%
P	The share of projects that <i>met almost exactly the planned budget</i> within your center (with respect to last year)	1. 0~ less than 20% 2. 20%~ less than 40% 3. 40%~ less than 60% 4. 60%~ less than 80% 5. 80%~ 100%
Q	How do you evaluate your R&D center's achievement for <i>low-cost R&D</i> (with respect to last year)? 1. Quite unsatisfactory — 5. Quite satisfactory	1. Quite unsatisfactory 2.  3.  4.  5. Quite satisfactory
R	How do you evaluate the achievement of your R&D center's <i>overall performance</i> (with respect to last year)? 1. Quite unsatisfactory — 5. Quite satisfactory	1. Quite unsatisfactory 2.  3.  4.  5. Quite satisfactory
S	Number of patents filed by your center last year	Local patent : around _____ USPTO : around _____

Thank you very much for having completed this questionnaire.

We will send you by e-mail the following reports of your choice, upon completion of the survey, if you have completed this questionnaire. Please choose the report(s) you wish to receive by e-mail:

☐ A summary of our results from this questionnaire

In addition, we are happy to send you one of the following reports next January or later. Please pick **one** from below:

☐ Metanational learning in TFT-LCD industry (in English)

☐ Issues for Japanese firms from metanational management perspective (in Japanese)

Your Contact Information:

Your e-mail			
Your name (optional)		Your R&D center	
Your title (optional)		City, Country	