

**Letter of introduction for having quantitative interview to MNC**

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X 16 December 2008

Dear Mr.

**Questionnaire on Technological Relationship between Foreign Subsidiaries / TNCs and Malaysian Local Suppliers**  
**- for TNCs**

I refer to our conversation today, 16<sup>th</sup> December 08 regarding the above matter.

2. For your information, I am currently involved in the above research for my PhD at the University of Malaya. This research is part of a study on technological capability building in the resource-based industry at the university under the Department of Science & Technology Studies. Briefly, the aim of the study is to identify the extent of the relationships created by foreign firms / TNCs with their local suppliers in the resource-based industry.

2. The background of the study is based on the fact that with the dramatic increase in cross-border investments over the past decades in Malaysia and the region, the need to understand the impact of foreign firms or TNCs on their host country's development path has become essential. Through this survey it is hoped that the relationships created by foreign firms / TNCs with their local suppliers in the resource-based industry could be analyzed. The findings could then be used as a recommendation for the Malaysian government on how to attract more investments into the country and also for Malaysian TNCs to invest abroad.

3. This research will use direct interviews with managers in the purchasing department, engineers and company directors. In regard to this, I appreciate if you could

have an interview with me as soon as possible. For your information, the interview for the questionnaire can be completed in less than 40 minutes. **I am available for the interview from now onward and can be contacted via:**

- i) email at [zakariahabdullah@gmail.com](mailto:zakariahabdullah@gmail.com).
- ii) phone/ SMS at 013-396-9119
- iii) my university's department address or phone number

4. Enclosed is the set of questionnaire which I will be using for the interview. Please give this questionnaire to the officer in charge of procurement/purchasing if you are not available. If you or the officer would like to discuss any of the questions, please feel free to call or sms me. ***The officer entrusted may complete the questionnaire beforehand*** and I will personally collect the questionnaire from the officer during the allocated interview time arranged for me by your firm. It is hope during my visit to your firm I could get further elaboration on the survey questions.

5. All companies that send in a complete questionnaire will receive a summary report of the results.

***I wish to assure you that all answers will be kept strictly confidential. Responses will not be reported individually but, will be combined into aggregate data. I wish to further assure you that all data will be destroyed once used.***

Thank you in advance for your assistance.

Once again thank you for your participation.

Sincerely yours,

Zakariah B. Abdullah  
Department of Science & Technology Studies  
Faculty of Science, University of Malaya  
50603 Kuala Lumpur

**Letter of introduction for having quantitative interview to local suppliers**

X  
X  
X  
X  
X  
X  
X

X

Dear Sir,

**Questionnaire on Technological Relationship between Foreign Subsidiaries / MNCs and Malaysian Local Suppliers**  
*- for suppliers*

I refer to the above subject matter.

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3. The background of the study is based on the fact that with the dramatic increase in cross-border investments over the past decades in Malaysia and the region, the need to understand the impact of foreign firms or MNCs on their host country's development path has become essential. Through this survey it is hoped that the relationships created by foreign firms / MNCs with their local suppliers in the resource-based industry could be analyzed. The findings could then be used as a recommendation for the Malaysian government on how to attract more investments into the country and also for Malaysian MNCs to invest abroad.

4. This research will use direct interviews with managers, engineers and company directors. In regard to this, I appreciate if you could help arranged for me to have an interview with your officer in charge of supplying the materials/services to your customers. For your information the questionnaire can be completed in less than an hour. **I am available for the interview from now onward and can be contacted via:**

- i) email at [zakariahabdullah@gmail.com](mailto:zakariahabdullah@gmail.com).
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TECHNOLOGICAL RELATIONSHIP BETWEEN FOREIGN SUBSIDIARIES / TNCs AND  
MALAYSIAN LOCAL SUPPLIERS  
(~ for TNCs)

**Firm-level Study**

Survey Questionnaire

*This study is being undertaken as part of the research work for a post-graduate student at the Department of Science & Technology Studies, University of Malaya. The aim of the study is to identify the extent of the relationships created by TNCs / foreign firms with their local suppliers in the resource-based industry.*

- The information required is for the year 2007; unless otherwise stated.
- Complete confidentiality is assured with this survey. The information that you provide will be used in an aggregate form only. Individual firm/company data and firm/company identity will be completely anonymous.
- All participating firms/companies will be given complimentary copies of the report/publications generated from the study and given access to final working papers.

QUESTIONNAIRE OF TECHNOLOGICAL RELATIONSHIP BETWEEN FOREIGN  
SUBSIDIARIES / TNCs AND MALAYSIAN LOCAL SUPPLIERS  
*-for (TNCs)*

PRELIMINARY NOTES

For the purpose of this research, all types of contractual arrangements between Transnational Corporations (TNCs) and local suppliers will not be differentiated. The terms used 'local suppliers' cover all types of local companies providing inputs to the subsidiary TNCs.

This research is about building relationship between TNCs and their Malaysian local suppliers in the petrochemical industry. For this research, the industry is divided into three stages. Stage I, by which such basic materials as ethylene, propylene, benzene and butadiene are produced by distilling or cracking petroleum; Stage II, by which such intermediate materials as low-density polyethylene (LDPE), high-density polyethylene (HDPE), polypropylene (PP), acrylonitrile monomer and caprolactum are produced by polymerizing or cracking the basic materials; and Stage III, by which the intermediate materials are processed into synthetic resins, synthetic fibers, synthetic rubber and other petrochemical products.

How to fill the questionnaire:

Feel free to comment on any questions or to qualify your answers if you wish. Your comments will be read and taken into account.

*The main types of answers are as follows: when you see*

*a table, please tick '√' to the appropriate category;  
the words **Yes** and **No**, please **circle** either one  
else, feel free to answer the questions to the best of your knowledge.*

**Thank you for answering all the questions.**

For office use:

**I. Interview information**

Date : Time :  
Name of Firm : **Titan Group (M) Sdn Bhd.**  
Name of the person interviewed :  
Position of the person interviewed :

**II. General information of the company**

- 1) Year of establishment of the subsidiary in Malaysia :
- 2) Name of Parent company:
- 3) Please indicate the year your company begin production:
- 4) What is the ownership structure of your firm, please indicate the appropriate form,

( ) State owned (100%)  
( ) 100 percent foreign-owned subsidiary  
( ) 100 percent locally owned  
( ) Joint venture → Local equity \_\_\_\_\_ %  
Foreign equity \_\_\_\_\_ %

- 5) Number of total employees (in year )
- 6) Number of Foreign employees (in year )
- 7) Paid up capital (in year )
- 8) Sales/Turnover (in year )

9) What percentage of Sales/Turnover was spent in Internal Training?

in Year 2007 \_\_\_\_\_  
in early 2000 \_\_\_\_\_ in Middle 1990s \_\_\_\_\_

10) What share of your firm’s production go to:

In Year 2007

- Local market %
- Singapore %
- Taiwan %
- Korea %
- Japanese market %
- China Market %
- United States market %
- European market %
- Other markets %

TOTAL 100 %

**III. Production Information**

1) Based on the three stages of the petrochemical industry, please indicate which stage or stages does your company involve in.

(     )           Stage I, my company produces basic materials as ethylene, propylene, benzene and butadiene by distilling or cracking petroleum;

(     )           Stage II, my company produces intermediate materials such as low-density polyethylene (LDPE), high-density polyethylene (HDPE), polypropylene (PP), acrylonitrile monomer and caprolactum by polymerizing or cracking the basic materials;

(     )           Stage III, my company uses the intermediate materials such as LDPE, HDPE and PP and processed them into synthetic resins, synthetic fibers, synthetic rubber and other petrochemical products.

(     )           My company produces and sells *other* petrochemical products (derivatives) as below.

2) What are the THREE (3) main products of your firms? Please specify your main products produced in Malaysia, and when you began producing them.

Main Product produced	Percentage outsourced
a) _____	(from year     ) _____
b) _____	(from year     ) _____
c) _____	(from year     ) _____

**IV. Your company's external linkages**

1) Is your company required by the Malaysian regulations to purchase local inputs?

Yes                    No

2) If so, what is the current rate of local content specified by the Malaysian regulations?

\_\_\_\_\_ %

3) What other types of government regulations does your company apply or participate in? (e.g. "umbrella" marketing scheme, vendors, subcontracting scheme, etc..)

e.g. \_\_\_\_\_



4) Please, indicate the origin of your company's supplies:

a) Do you receive inputs from your parent firm or other subsidiaries/affiliates of your parent company?

Yes                      No                      If 'No', please go to question c) below.

b) If so, please specify the share these *internal supplies (inputs received from your parent company or other subsidiaries/affiliates of your parent company)* represent in your total supplies?

\_\_\_\_\_ %

c) Do you receive inputs from companies other than your parent company or subsidiaries/affiliates?

Yes                      No

d) If so, please specify the share these *external supplies (inputs received from companies other than your parent firm or subsidiaries/affiliates)* represent in your total supplies?

\_\_\_\_\_ %

**V. Company's Suppliers**

The following are the list of suppliers (with symbols used) with whom your company may have linkages in terms of outsourcing:

- Commodity Suppliers** ~ **Commodity suppliers** (*companies which compete on the basis of low cost*)
- Collaborate contractors** ~ **Collaboration specialists or contractors** (*companies that sell parts/services which use standardized technologies (general asset and skills) which meet customer specifications and delivery schedules*)
- Tech-Eng contractors** ~ **Technology/Engineering specialists or contractors** (*companies which invest heavily in firm-specific skills and assets for producing proprietary products*)
- Prob-solve/ Licensors** ~ **Problem-solving suppliers / licensors** (*companies compete primarily on its ability to continuously acquire and evolve new ways to solve process and product problems. More often they are large companies*)

For the following sections, where needed in the line of questioning, please specify (✓) to the appropriate suppliers.

**VI. Product related linkages with local Malaysian owned suppliers**

1) Do you provide proprietary knowledge to local suppliers?

- Proprietary knowledge
- By licensing?
- By granting local firms to use it?
- By subcontracting?

Commodity suppliers	Collaborate contractors	Tech-Eng contractors	Prob-solve/ Licensors

2) Do you provide detailed product component / services / feedstock/ raw material designs or technical specifications for local suppliers?

- Product designs
- Technical specifications
- By drawing
- By different method (please specify)

Commodity suppliers	Collaborate contractors	Tech-Eng contractors	Prob-solve/ Licensors

3) When you are planning to launch new products, when or at which development stage do you provide advance technical information about changes in products/ raw materials so that local firms can produce components/ feedstock / services for the new product?

- Advance technical information
- How in advance

Commodity suppliers	Collaborate contractors	Tech-Eng contractors	Prob-solve/ Licensors

4) Do you provide technical consultation or advice to local firms on product / services / feedstock / raw materials characteristics or parameters so that local suppliers can adopt and absorb product related technology?

- Technical consultation
- Technical advice

Commodity suppliers	Collaborate contractors	Tech-Eng contractors	Prob-Solve/ Licensors

5) Do you give feedback on local suppliers' performance so that they can improve the product/ services / feedstock/ raw materials further?

- Feedback
- Method of giving feedback

Commodity suppliers	Collaborate contractors	Tech-Eng contractors	Prob-solve/ Licensors

6) Do you have R&D facilities in Malaysia?

R&D facilities Yes No  
 For what purpose? \_\_\_\_\_

7) Do you collaborate with local suppliers in product development through joint R&D?

- Collaboration with local suppliers
- Method of joint R&D

Commodity suppliers	Collaborate contractors	Tech-Eng contractors	Prob-solve/ Licensors

8) How many people are involved in R&D? \_\_\_\_\_

9) How much do you spend on R&D as a percentage of sales? \_\_\_\_\_

10) Do you collaborate in product development with local research institute or universities?

Collaboration with local research institutes Yes No  
 Collaboration with local universities Yes No  
 Other (please specify) \_\_\_\_\_

11) How useful is such collaboration: \_\_\_\_\_

12) If there is no collaboration, please state the reason: \_\_\_\_\_

**VII. Process related linkages with Malaysian owned suppliers**

1) Do you transfer machine-embodied process technology by providing relevant process machinery or equipments to your suppliers?

	<b>Commodity suppliers</b>	<b>Collaborate contractors</b>	<b>Tech-Eng contractors</b>	<b>Prob-solve/ Licensors</b>
For products you want local suppliers to produced?				
For testing equipment for quality control?				

2) Do you provide technical support on process related activities to your suppliers?

	<b>Commodity suppliers</b>	<b>Collaborate contractors</b>	<b>Tech-Eng contractors</b>	<b>Prob-solve/ Licensors</b>
General technical support				
Specifically to improve local suppliers' manufacturing process				
Specifically to improve quality control methods				
Specifically to improve inspection and testing methods				
Specifically on selection or use of process equipment or technologies				

3) Do you visit supplier's facilities to provide advice?

	<b>Commodity suppliers</b>	<b>Collaborate contractors</b>	<b>Tech-Eng contractors</b>	<b>Prob-Solve/ Licensors</b>
Visiting suppliers' facilities				
Visiting for advice on factory layout				
Visiting for advice on installing the machinery				
Visiting for advice on production planning				
Visiting for advice on production problems and quality control				

4) Do you attach your company's engineers to local suppliers?

Attach engineers to suppliers  
 Length of attachment  
 Frequency of attachment  
 Others

Commodity suppliers	Collaborate contractors	Tech-Eng contractors	Prob-solve/ Licensors

5) Do you train local suppliers' staff?

- By direct training
  - At their premises with your supplier's staff
  - At their premises with your company's staff
  - At your company
  - At parent company
  - At other premises
- By indirect training
  - At technical institution
  - Through Malaysian government scheme
  - Through other country's institution's scheme

Commodity suppliers	Collaborate contractors	Tech-Eng contractors	Prob-solve/ Licensors

6) Have you used and/or participated in the following?

*If yes, with which suppliers?*

ILP	Industrial Linkage Program	Yes	No
VDP	Vendor Development Program	Yes	No
HRDF	Human Resource Development Fund	Yes	No
ITAF	Industrial Technical Assistance Fund	Yes	No
IAF	Industrial Adjustment Fund	Yes	No
DDI	Double Deduction Incentives	Yes	No
Others (please specify) _____			

7) If your answer to question 5) and 6) above has been 100% direct training, please specify reasons for not using training schemes organized by the government.

8) How do you fund training of local suppliers' staff?

Internal Fund	%
Parent Company's Fund	%
Financial Institution	%
Malaysian Government Scheme	%

9) Do you have a special department in your company to help maintaining relationship with local suppliers?

Department \_\_\_\_\_ Yes No  
Name of the department \_\_\_\_\_  
With which suppliers? \_\_\_\_\_

10) Do you form special teams to assist local suppliers in process know-how or in operating equipment?

Team \_\_\_\_\_ Yes No  
Purposes of the team \_\_\_\_\_  
With which suppliers? \_\_\_\_\_

11) Do you have co-operation arrangement clubs or meetings for exchanging technical issues with local suppliers?

• Cooperation arrangement club \_\_\_\_\_ Yes No

Frequency of meetings \_\_\_\_\_

• Meeting

Frequency of meetings \_\_\_\_\_

Purpose of meetings:

For quality control presentation \_\_\_\_\_ Yes No  
Discussion of case studies on quality improvement \_\_\_\_\_ Yes No  
Value analysis and cost reduction activities \_\_\_\_\_ Yes No  
For organizing workshops on technical guidance and training \_\_\_\_\_ Yes No  
Others \_\_\_\_\_

12) How do you evaluate your suppliers? Please explain \_\_\_\_\_

13) On what criteria do you select your suppliers? \_\_\_\_\_

14) If your local employee wants to set up his/her own company as your company's supplier, do you provide start-up assistance?

Yes No

15) How many employees have set up their own companies/

How many? \_\_\_\_\_ When? \_\_\_\_\_

16) Do you have Supplier Development (SD) program?

Yes No



***IX. Benefits and costs from linkages with local Malaysian owned suppliers***

1) Have you been able to ensure that the parts, components, services or resources procured meet your precise requirement?

Yes No

2) Have you provided the necessary specifications to your suppliers?

Yes No

3) When have you found the effects listed below as a result of linkages with local firms?  
*Please indicate the year where you see such an improvement to the followings:*

*i) Improvement of manufacturing process*

1970            1980            1990            2000            2008  
----->----->----->----->

Yes No

*ii) Improvement of quality control*

1970            1980            1990            2000            2008  
----->----->----->----->

Yes No

*iii) Improvement of existing products*

1970            1980            1990            2000            2008  
----->----->----->----->

Yes No

*iv) Reduction of costs*

1970            1980            1990            2000            2008  
----->----->----->----->

Yes No

*v) Improvement of delivery conditions*

1970            1980            1990            2000            2008  
----->----->----->----->

Yes No



vi) *Improvement of product design and/or development*

1970                      1980                      1990                      2000                      2008

----->----->----->----->

Yes    No

4) What are the costs incurred (problems) for you to provide linkages to local suppliers?

**X. *Your company's relationship with your parent company in home country***

Autonomy of decision in terms of supplies

1) Does your company receive advice from its parent company about purchase sourcing?

Yes    No

2) If so, please specify how independent your company is from its parent company in its purchase sourcing of major inputs.

Please, indicate ***one*** only:

- Subsidiary totally dependent in its purchase sourcing
- Subsidiary mostly dependent in its purchase sourcing
- Neither dependent nor independent
- Subsidiary mostly independent in its purchase sourcing
- Subsidiary totally independent in its purchase sourcing

3) Does parent company allow your subsidiary to decide the following?

	<b><i>No Authority</i></b>	<b><i>Limited Authority</i></b>	<b><i>Full Autonomy</i></b>
--	--------------------------------	-------------------------------------	---------------------------------

- a) Launching new products
- b) Adopting new processes
- c) Deciding which parts to be outsourced
- d) Changing relationships with local companies
- e) Choosing suppliers
- f) Spending for local suppliers' staff training
- g) Others

4) Do you have any particular issues that your company has absolute authority relating with your relationship with suppliers?

***XI. Factors affecting your linkages with local suppliers***

Which of the following have encouraged technology transfer or stronger linkages to your company?

Suppliers' technological capabilities	Yes	No
Suppliers' willingness to adopt new technologies	Yes	No
Level of technological development in Malaysia	Yes	No
Support institutions	Yes	No
Business environment	Yes	No
Government regulations please elaborate _____	Yes	No
Others _____		

***XII. Your local Malaysian owned suppliers***

This study also covers local supporting firms for the petrochemical industry.

A. In order to assist me in compiling a list of such firms, please introduce at least three of your main suppliers in the following categories.

**a) Commodity suppliers** (*companies which compete on the basis of low cost*)

1) Name:  
Address:  
Tel:  
Length of relationship with your company:  
% of purchases:

2) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases:

3) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases:

**b) Collaboration specialists or contractors** (*companies that sell parts/services which use standardized technologies (general asset and skills) which meet customer specifications and delivery schedules*)

1) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases

2) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases

3) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases:

**c) Technology/Engineering specialists or contractors** (*companies compete primarily on its ability to continuously acquire and evolve new ways to solve process and product problems*)

1) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases

2) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases

3) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases:

**d) Problem-solving suppliers / licensors** (*companies which invest heavily in firm-specific skills and assets for producing proprietary products*)

1) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases

2) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases

3) Name:  
Address:  
Tel:  
Length of relationship:  
% of purchases:

B) Please specify the percentage value outsourced from the following suppliers?

( ) **Commodity suppliers** (*companies which compete on the basis of low cost*)

*% value  
outsourced*

- |                  |   |
|------------------|---|
| Home country     | 1) Parent company<br>2) Sister company<br>3) Other TNCs                         |
| In Malaysia      | 4) Local Malaysian-owned companies<br>5) Your sister companies<br>6) Other TNCs |
| Outside Malaysia | 7) Your sister companies<br>8) Other TNCs                                       |

Total value outsourced (100%)

( ) **Collaboration specialists or contractors** (*companies that sell parts/services which use standardized technologies (general asset and skills) which meet customer specifications and delivery schedules*)

*% value  
outsourced*

- |                  |   |
|------------------|---|
| Home country     | 1) Parent company<br>2) Sister company<br>3) Other TNCs                         |
| In Malaysia      | 4) Local Malaysian-owned companies<br>5) Your sister companies<br>6) Other TNCs |
| Outside Malaysia | 7) Your sister companies<br>8) Other TNCs                                       |

Total value outsourced (100%)

( ) **Technology/Engineering specialists or contractors** (*companies compete primarily on its ability to continuously acquire and evolve new ways to solve process and product problems*)

***% value  
outsourced***

- |                  |   |
|------------------|---|
| Home country     | 1) Parent company<br>2) Sister company<br>3) Other TNCs                         |
| In Malaysia      | 4) Local Malaysian-owned companies<br>5) Your sister companies<br>6) Other TNCs |
| Outside Malaysia | 7) Your sister companies<br>8) Other TNCs                                       |

Total value outsourced (100%)

( ) **Problem-solving suppliers / licensors** (*companies which invest heavily in firm-specific skills and assets for producing proprietary products*)

***% value  
outsourced***

- |                  |   |
|------------------|---|
| Home country     | 1) Parent company<br>2) Sister company<br>3) Other TNCs                         |
| In Malaysia      | 4) Local Malaysian-owned companies<br>5) Your sister companies<br>6) Other TNCs |
| Outside Malaysia | 7) Your sister companies<br>8) Other TNCs                                       |

Total value outsourced (100%)

**Thank you once again for your contribution, it is very much appreciated.**

TECHNOLOGICAL RELATIONSHIP BETWEEN FOREIGN SUBSIDIARIES / MNCs AND  
MALAYSIAN LOCAL SUPPLIERS

*~ for suppliers*

**Firm-level Study**

Survey Questionnaire

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- The information required is for the year 2007 or 2008; unless otherwise stated.
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QUESTIONNAIRE OF TECHNOLOGICAL RELATIONSHIP BETWEEN MNCs AND  
MALAYSIAN LOCAL SUPPLIERS  
*-for suppliers*

PRELIMINARY NOTES

For the purpose of this research, all types of contractual arrangements between Multinational Corporations (MNCs) and local suppliers will not be differentiated. The terms used 'local suppliers' cover all types of local companies providing inputs to the subsidiary.

This research is about building relationship between MNCs and their Malaysian local suppliers in the petrochemical industry. For this research, the industry is divided into three stages. Stage I, by which such basic materials as ethylene, propylene, benzene and butadiene are produced by distilling or cracking petroleum; Stage II, by which such intermediate materials as low-density polyethylene (LDPE), high-density polyethylene (HDPE), polypropylene (PP), acrylonitrile monomer and caprolactum are produced by polymerizing or cracking the basic materials; and Stage III, by which the intermediate materials are processed into synthetic resins, synthetic fibers, synthetic rubber and other petrochemical products.

How to fill the questionnaire:

Feel free to comment on any questions or to qualify your answers if you wish. Your comments will be read and taken into account.

*The main types of answers are as follows: when you see*

*the sign ( ), please tick 'X' to the appropriate category;  
the words **Yes** and **No**, please circle either one  
else, feel free to answer the questions to the best of your knowledge.*

**Thank you for answering all the questions.**

For office use:



***I. Interview information***

Date \_\_\_\_\_ Time \_\_\_\_\_  
Name of the company interview \_\_\_\_\_  
Name of MNCs affiliated with this company \_\_\_\_\_  
Nationality of affiliated MNCs \_\_\_\_\_

***II. General information of the company***

- 1) Name of the person interviewed \_\_\_\_\_
- 2) Position \_\_\_\_\_
- 3) Year of establishment in Malaysia \_\_\_\_\_
- 4) Please indicate the year your company begin production/operation: \_\_\_\_\_
- 5) What is the ownership structure of your firm, please indicate the appropriate form,

- State owned (100%)
- 100 percent foreign-owned subsidiary
- 100 percent locally owned
- Joint venture → Local equity \_\_\_\_\_ %  
Foreign equity \_\_\_\_\_ %

- 6) Number of total employees (in year \_\_\_\_\_ )
- 7) Number of Foreign employees (in year \_\_\_\_\_ )
- 8) Paid up capital (in year \_\_\_\_\_ )
- 9) Sales/Turnover (in year \_\_\_\_\_ )

10) Terms of agreement with MNCs

- Subcontracting agreements
- Informal agreements
- Others, please specify \_\_\_\_\_

11) What percentages of your production/services do you export?

- In year 2007/2008 \_\_\_\_\_
- In early 2000 \_\_\_\_\_
- In mid 1990s \_\_\_\_\_
- In early 1990s \_\_\_\_\_
- In mid 1980s \_\_\_\_\_

12) What are the nationalities and share of customers to which you supply your products?

**In Malaysia**

**Outside Malaysia**

Japan	%	Japan	%
Taiwan	%	Taiwan	%
Korean	%	Korean	%
Singaporean	%	Singaporean	%
China	%	China	%
American	%	American	%
European	%	European	%
Joint Venture	%	Joint Venture	%

**III. Production/Services Information**

1) Please specify ( **X** ) for your main area of business.

(  ) **Basic Items Suppliers/contractors** (*Your company supplies basic items/parts such as nuts and bolts that use standardized technologies and meet customer specifications, and delivery services. Your company can be in many industries.*)

(  ) **Technology/Engineering suppliers/contractors** (*Your company supply highly specialized products and services and continuously acquires and evolves new ways to solve process and product problems.*)

(  ) **Technology and Engineering Consulting Services** (*Your company offers knowledge-intensive professional services.*)

(  ) **Others** (please specify) \_\_\_\_\_

2) Please specify ( **X** ) as to the nature of your company's work.

(  ) Basic items suppliers. Please specify: \_\_\_\_\_

(  ) Distributors

(  ) Engineering Contractors

(  ) Plant Designers

(  ) Consulting Services

(  ) Maintenance & Plant Services

(  ) Equipment Suppliers

(  ) Equipment Fabricators

(  ) Instrumentation

(  ) Intellectual Property licensors

(  ) Others. Please specify: \_\_\_\_\_

**IV. Your company's customers**

Who are your customers?

1) Based on the three stages of the petrochemical industry, please indicate your customers.

( ) My company's customers produce basic materials such as ethylene, propylene, benzene and butadiene by distilling or cracking petroleum;

( ) My company's customers produce intermediate materials such as low-density polyethylene (LDPE), high-density polyethylene (HDPE), polypropylene (PP), acrylonitrile monomer and caprolactum by polymerizing or cracking the basic materials;

( ) My company's customers use the intermediate materials such as LDPE, HDPE and PP and processed them into synthetic resins, synthetic fibers, synthetic rubber and other petrochemical products.

( ) my company's customers produce Other petrochemical products than the above.

2) Besides petrochemical, are you a supplier to the oil & gas industry? Yes No

3) In Malaysia, your firm first began with supplying to the oil & gas industry? Yes No

**V. Product related linkages with MNCs subsidiaries in Malaysia**

1) Do you receive proprietary knowledge from MNCs subsidiaries in Malaysia?

Proprietary knowledge	Yes	No
By licensing?	Yes	No
By granting local firms to use it?	Yes	No
By subcontracting?	Yes	No

2) Do you receive detailed product / services / feedstock / raw materials designs or technical specifications from MNCs?

Product designs	Yes	No
Technical specifications	Yes	No
By drawing	Yes	No
By different method (please specify)	_____	
How?	_____	

3) If customers are planning to launch new products, do you receive advance technical information about changes in MNC products/ feedstock/ raw materials so that you can produce components/ feedstock/ materials for the new products?

Advance technical information	Yes	No
How in advance	_____	

4) Do you receive technical consultation or advice from MNCs on product / services / feedstock / raw materials characteristics or parameters so that you can adopt and absorb product related technology?

Technical information	Yes	No
Technical advice	Yes	No

5) Do you receive feedback on your performance from MNCs so that you can improve the product/ feedstock/ raw materials further?

Feedback	Yes	No
Method of giving feedback _____		

6) Do you have R&D facilities?

R&D facilities	Yes	No
----------------	-----	----

7) How much do you spend on R&D as a percentage of sales? \_\_\_\_\_

8) Do you have the capacity for product development?

Product development	Yes	No
Other information on your technological capability _____		

9) Do you collaborate with customers in product development through joint R&D?

Collaboration with MNCs	Yes	No
Method of joint R&D _____		

10) Do you collaborate in product development with local research institutes or universities?

Collaboration with local research institute	Yes	No
Collaboration with local universities	Yes	No
Others (please specify) _____		

11) Have you patented any process or product?	Yes	No
---	-----	----

#### **VI. Process related linkages with MNCs**

1) Do you acquire process technology by receiving relevant process machinery or equipment from customers (MNCs)?

For products you produce?	Yes	No
For testing equipment for quality control?	Yes	No

2) Do you receive technical support on process related activities from customers (MNCs)?

General technical support	Yes	No
Specifically to improve your company's manufacturing process	Yes	No
Specifically to improve quality control methods	Yes	No
Specifically to improve inspection and testing methods	Yes	No
Specifically on selection or use of process equipment or technologies	Yes	No

3) Do your customers (MNCs) visit your facility to provide advice?

- Visiting suppliers' facilities Yes No  
Frequency
- Visiting for advice on factory layout Yes No  
Frequency
- Visiting for advice on installing the machinery Yes No  
Frequency
- Visiting for advice on production planning Yes No  
Frequency
- Visiting for advice on production problems and quality control Yes No  
Frequency

4) Do your customers (MNCs) send their engineers to your company?

Sending engineers to your company Yes No

Length of sending them \_\_\_\_\_

Frequency of sending them \_\_\_\_\_

Others \_\_\_\_\_

Any differences in Nationality of MNCs in terms of sending engineers to your company?

5) Do you train your company's staff?

Training Yes No

How much do you spend for the training?

• By direct training % of total training (if available)

i) at your premise with MNCs staff Yes No

ii) at your premise with MNCs parent company's staff Yes No

iii) at customer's premise Yes No

iv) at customer's parent company Yes No

v) at other premises \_\_\_\_\_

• By indirect training % of total training (if available)

i) at technical institution Yes No please specify \_\_\_\_\_

ii) through Malaysian government scheme Yes No please specify \_\_\_\_\_

iii) through other country's institution's scheme Yes No please specify \_\_\_\_\_

• Any differences in Nationality of MNCs in terms of training?

6) Have you used and/or participated in the following?

- |          |                                      |     |    |
|----------|--------------------------------------|-----|----|
| • ILP    | Industrial Linkages Program          | Yes | No |
| • VDP    | Vendor Development Program           | Yes | No |
| • HRDF   | Human Resource Development Fund      | Yes | No |
| • ITAF   | Industrial Technical Assistance Fund | Yes | No |
| • IAF    | Industrial Adjustment Fund           | Yes | No |
| • DDI    | Double Deduction Incentives          | Yes | No |
| • MIDF   | Malaysia Investment Development Fund | Yes | No |
| • SIRIM  | for quality control and standards    | Yes | No |
| • MIDA   | for Incentives                       | Yes | No |
| • Others | (please specify) _____               |     |    |

7) If you do not participate in any government schemes, please specify reasons why you do not use them.

8) How do you fund the training of your staff?

- Your company %
- Customers %
- Customer's Parent Company's Fund %
- Financial institution in Malaysia %
- Malaysian government scheme %

9) Do you have special department in your company which mainly helps maintaining relationship with customers?

Department \_\_\_\_\_ Yes No  
Name of the department \_\_\_\_\_

10) Do your customers form special teams to assist your company's in process know-how or in operating equipment?

- Team Yes No
- Purposes of the team \_\_\_\_\_

11) Are you a member of cooperation arrangement club or meetings established by customer?

- Cooperation arrangement club Yes No

i) Nationality of customer  
Frequency of meetings

ii) Nationality of customer  
Frequency of meetings

- Meeting Yes No

i) Nationality of customer  
Frequency of meetings

Purposes of meetings:

For quality control presentation Yes No

Discussion of case studies on quality improvement Yes No

Value analysis and cost reduction activities Yes No

For organizing workshops on technical guidance and training Yes No

Others \_\_\_\_\_

- ii) Nationality of customer  
Frequency of meetings

Purposes of meetings:

For quality control presentation	Yes	No
Discussion of case studies on quality improvement	Yes	No
Value analysis and cost reduction activities	Yes	No
For organizing workshops on technical guidance and training	Yes	No
Others _____		

12) Do your customers evaluate your performance? Please explain \_\_\_\_\_

13) On what criteria were you selected as a supplier? \_\_\_\_\_

14) Do you participate in any Supplier Development (SD) program? Yes No

**VII. Organizational and managerial related linkages with MNCs**

1) Do you receive any assistance in adopting inventory management systems?

Yes No

2) Do you receive any assistance in product designing know how?

- By receiving technical personnel from customers? Yes No
- By receiving managerial personnel from customers? Yes No
- Other methods \_\_\_\_\_

3) Do you receive any assistance in implementing quality control systems?

- By receiving technical personnel from customers? Yes No
- By receiving managerial personnel from customers? Yes No
- Other methods \_\_\_\_\_

4) Do you receive any assistance in obtaining ISO certification?

- By receiving technical personnel from customers? Yes No
- By receiving managerial personnel from customers? Yes No
- Other methods \_\_\_\_\_



5) Do your customers introduce new management or new organizational practices to you?

- New management practices                      Yes    No
- New organizational practices                Yes    No
- Network management                      Yes    No
- Financial management                      Yes    No
- Purchasing systems                        Yes    No
- Marketing know-how                        Yes    No
- Supply chain management                Yes    No
- Others    \_\_\_\_\_

***VIII. Improvement of your performance as a result of linkages with MNCs***

Have you found any improvements as a result of linkages with customers?

*Please indicate the year where you see such an improvement to the followings:*

- Improvement of manufacturing process                      Yes    No
- Improvement of quality control                                Yes    No
- Improvement of existing product                              Yes    No
- Reduction of costs?    Yes    No
- Improvement of delivery conditions                        Yes    No
- Improvement of product design and/or development      Yes    No

2) What do you want to learn from foreign customers (MNCs subsidiaries in Malaysia)?

3) Have you received any significant training from customers?

4) What are the most beneficial factors for having foreign customers?

5) Are there any differences between nationalities?

***Thank you for your contribution, it is very much appreciated.***

X  
X  
X  
X  
X  
X  
X

Dear Sir,

**SEEKING COOPERATION TO INTERVIEW FOR  
DATA COLLECTION PURPOSES FOR PhD STUDY**

May this letter reach you at the very best of your health.

Kindly be informed that the PhD candidate under my supervision namely, **ZAKARIAH BIN ABDULLAH, IC No: 610725-04-5395 and Matric No: SHB050007** will be conducting a PhD thesis entitled “**The Development of the Malaysian Petrochemical Industry: Knowledge Transfer through Backward Linkages**”. The research study is to examine how petrochemical firms obtain their technological capabilities and on how local suppliers upgrade their knowledge base in Malaysia’s petrochemical industry.

For your information, the study proposes that selected petrochemical firms will be among the main research respondents / informants in order to get all the relevant data and information pertaining to the development of the Malaysian petrochemical industry.

We are fully aware with your position as among the outstanding individuals in the development of the petrochemical industry in the country. In this respect, we humbly request for your consent and commitment to be interviewed by this student.

Thanking you in advance for all the support and assistance given to our student.

Yours truly,

ASSOC. PROF. DR K. THIRUCHELVAM  
Lecturer

X

X

X

X

X

X

X

X

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Thanking you in advance for all the support and assistance given to our student.

Yours truly,

ASSOC. PROF. DR K. THIRUCHELVAM  
Lecturer

**Questions for the Interview (MNCs): for Zakariah Bin Abdullah, University of Malaya**

**General**

The nature of your firm's work

Domestic/international operations of your firm

Your firm decision on entry mode

Others

**Technological Capabilities**

What are your firm's efforts to build technological capabilities.

Source of improvement to your firm capabilities e.g. Training budget

Others

**Linkages**

Nature of your suppliers

What are the motivations/impediments to having linkages with local suppliers?

What kinds of linkages or supports have you provided to your suppliers?

What kind of technological benefits have been derived from having established and maintained relationship with your suppliers?

Others

**Relations with government and research institutions/universities**

How does the government support your firm?

How do universities/research institutions in Malaysia support your firm activities?

How does industry or petrochemical association or FMM support your firm activities?

Others

**Questions for the Interview (Local Suppliers): Zakariah Abdullah, University of Malaya**

**General**

The nature of your firm's work

Your firm decision on entry mode

**Technological Capabilities**

What are your firm's efforts to build technological capabilities?

Sources of improvement to your firm capabilities e.g. Training budget

**Linkages**

Nature of your customers and your firm's process of service delivery

What competitive advantage does your firm exploit in having linkages with your customers?

What kinds of linkages has your customer provided?

What kind of technological benefits have been derived from having established and maintained relationship with your customers?

**Relations with government and research institutions/universities**

How does the government support your firm?

How do universities/research institutions in Malaysia support your firm activities?

How does industry or petrochemical association or FMM support your firm activities?



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July 2, 2007

**To Whom It May Concern**

Dear Sir,

Please be informed that **Zakariah bin Abdullah** (IC No: 610725-04-5395) is a registered student of the Doctor of Philosophy programme conducted by this Department. His proposed research is focused on the development of technological capabilities in the petroleum chemical industry in Malaysia. We will be delighted if you could extend whatever cooperation to facilitate his research work.

Your kind cooperation in the above is deeply appreciated.

Thank you.

Yours faithfully,

**(Dr. K. Thiruchelvam)**  
Co-ordinator of Post-graduate Studies

Contact Details

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February 24, 2009

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