

Discussion Paper 8106

July 1981

THE DEVELOPMENT CONTRIBUTION OF MULTINATIONAL
FIRMS IN THE PHILIPPINES: A SUMMARY OF
A SURVEY OF 28 FIRMS

by

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Preface

This paper is a summary and discussion of the results of a questionnaire and interview survey of manufacturing firms in the Philippines with at least 30 percent equity participation by multinational firms (MNFs). The survey was undertaken in late 1980 and early 1981. Forty firms were approached; 29 agreed to participate.

Much analysis of the data remains to be done; however, I thought it useful to provide at this time a summary for the cooperating firms as well as others who are interested in the impact of MNFs on Philippine economic development. Comments are welcome and can be sent to me at the address given below.

I would like to thank the executives of the participating firms and their staffs who filled out the questionnaire and allowed me to interview them. In the early stages of the project several businessmen and economists made helpful comments both about the contents of the questionnaire and its form. I appreciate their assistance. My thanks also go to Mr. Roger Paglomutan, who assisted me in summarizing and analyzing the data, and Ms. Throadia G. Santos, who typed the manuscript under considerable time pressure.

This study was made possible, in part, through a Fulbright Research Grant.

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I. Selection of Firms

There have been two recent attempts to establish the population of firms with foreign equity in the Philippines. One study was undertaken in 1976 by Mamoru Tsuda, et al. for the U.P. Law Center; the other in 1978 by Charles McDougald for the American Chamber of Commerce in the Philippines. These two lists, supplemented by information from Business Day's Largest 1000 Corporations, formed the basis for my list of firms with foreign equity.

My interest is in large manufacturing corporations affiliated with multinational firms (MNFs). Several definitions of MNFs have been proposed. One of the more general, and the one used here, includes enterprises with productive assets in at least two countries. However, the MNFs affiliated with the firms that agreed to participate in this study would easily meet a more restrictive definition. Large firms, owned or controlled by Filipinos or permanent residents in the Philippines, that have recently become multinational in their operations are not included.

Manufacturing firms with equity participation by a MNF of at least 30 percent were grouped by industry. Eight industries were selected: food, soap and detergents, pharmaceuticals, chemicals, motorcycles, television, other electrical appliances (including incandescent light manufacturing), and paper. The industries were selected in order to obtain a range of manufacturing activities and to include firms associated with American, European, and Japanese-based MNFs.

In each industry the largest MNF affiliated firms were identified. In addition two firms -- Interphil and Muller-Phipps -- were included because of their activities as contract manufacturers. A total of 40 firms were approached, 29 of which agreed to participate. The response rate, in my view, would have been higher if the period for interviewing could have been extended beyond the last three months of 1980 into 1981. Many of those not participating indicated that the pressure of completing year-end reports and planning documents was the reason. On the other hand, my attempt to stay away from questions eliciting proprietary information contributed to the participation rate as it was.

The management of Cyanamid Philippines, allowed me to interview them, although the firm is not directly engaged in manufacturing operations. All other participating firms are engaged in manufacturing. Among the 28, 16 are affiliated with American MNFs, 7 with Japanese, 4 with Europeans, and 1 is a European/American joint venture. For purposes of this study, if a MNF owns at least 76 percent of a firm's equity, I considered that firm a subsidiary; otherwise, the firm is designated a joint venture. The surveyed firms include 15 subsidiaries, 12 joint ventures between Filipinos and foreigners, and one joint venture between Americans and Europeans.

II. Investment Decisions of MNEs

For each industry in the survey the largest multinational affiliated firms were identified. For various reasons, firms that actually participated in the study are not necessarily the largest. In addition, the larger firms in some industries are smaller than the larger firms in other industries. Nevertheless, most of the participating firms are among the larger firms in the manufacturing sector of the Philippine economy. Seven were ranked among the largest 100 firms in the economy in total sales, according to Business Day's Largest 1000 Corporations, 1979 edition, and half (14 firms) were among the largest 250. From my comprehensive list of manufacturing firms with foreign equity of at least 30 percent, 24 of the 28 firms included in the study are among the largest 100, when ranked according to sales.¹

Large multinational affiliated firms were chosen under the assumption that the activities of these firms are more likely to have a significant impact on the Philippine economy than smaller firms. The consequence of this approach is that the participating companies are generally among the older and more well established; overwhelmingly, their initial investment was import substitution oriented rather than export oriented. Only three firms — Procter and Gamble, Philippine Refining Co. and Philippine

¹The 100th ranked corporation in our list of multinational affiliated manufacturing firms was ranked 537 in Business Day's list for 1979. Their list includes all non-financial firms, not just manufacturing firms. If only manufacturing firms were considered, the 100th ranked firm in my list would, no doubt, be among the largest 200 or 225.

Currently 15 of the participating firms can be considered subsidiaries (Filipino equity less than 30 percent). Two are owned by European-based MNFs; the rest, by Americans. Twelve of the firms are joint ventures between Filipinos and a foreign-based MNP (7 Japanese, 2 European, and 3 Americans). The last firm is the European/American joint venture referred to above. See Table II-1 for a breakdown of firms by percent of foreign ownership. As the reader can see, the American MNFs are more likely to have subsidiaries; the Japanese, joint ventures, and the Europeans, both.

To a considerable extent, this pattern of ownership can be explained by the date of equity acquisition by the MNP. All of the Japanese investments have occurred since 1968. On the other hand, five of the American subsidiaries were operating prior to World War II. Seven other firms that were in existence by the mid-1950s, were controlled by American MNFs by the early 1960s. In one case, however, MNP ownership changed hands in the 1970s. The remaining American subsidiary is a relatively new firm that was started up by its MNP parent to engage in production previously undertaken by another of the MNP's Philippine subsidiaries. Thus all of the American MNFs have a relatively early entry into the Philippine economy.

Two of the American joint ventures with Filipinos were undertaken in the 1970s, but one of these involved one American MNP, which had other investments in Philippine manufacturing, replacing another American MNP. The other joint venture was formed in the early 1960s.

Table II-1

Distribution of Firms by Nationality and
Current Percent of Multinational Firm Ownership

Percent of Equity, x , held by MNFs	Number of Firms by Nationality of Affiliated MNF		
	American	European	Japanese
$98 \leq x \leq 100$	12*	2*	0
$70 \leq x < 98$	2	1	0
$50 \leq x < 70$	1	1	0
$40 \leq x < 50$	0	1	5
$30 \leq x < 40$	2	0	2

* European/American joint venture listed as both European and American.

There appears to be little pattern to the European investments. In part this may be a consequence of there being only 5 European MNE affiliated firms in our study. Table II-2 shows the distribution of year of incorporation of the participating firms and of investment by the current affiliated MNE.

Looking at the various industries in the study, the soap and detergent industry is the oldest, with all three participating firms operating as MNE subsidiaries prior to the second World War. The same is true for 2 of the four firms in the food industry. At the other extreme is the motorcycle industry. The 3 firms that I interviewed began operations in the late 1960s or the 1970s. The firms in the television industry have a wide range of date of incorporation; however, participating firms in this industry and in the motorcycle industry acquired MNE participation beginning only in the late 1960s. In contrast to firms in the soap and detergent and food industries, those in the motorcycle and television industries, as well as firms in the other electrical appliances and electric light industry, are with one exception, joint ventures. In all but one of the joint ventures the affiliated MNE controls less than 50 percent of the firm's equity. This does not necessarily mean that any one Filipino stock holder owns the largest share of the firm's equity, nor does it necessarily mean that the affiliated MNE has only a minority voice in decision making. However, it does reflect the Philippine government policy of encouraging joint ventures over wholly-owned subsidiaries.

Table II-2

Distribution of Firms by Year of Incorporation and
by Year of Investment by Current Affiliated Multinational Firm

Year	Number of Firms Incorporated	Number of Firms Obtaining Investment by Nationality of Current Affiliated MNP		
		American	European	Japanese
Before 1946	6	5	1	0
1946-1949	3	0	0	0
1950-1955	4	2	0	0
1956-1960	2	2	0	0
1961-1965	5	3	3	0
1965-1972	3	0	0	4
1972-1980	5	5*	1*	3

* European/American joint venture counted both as European and as American.

The pharmaceutical, chemical, and paper industries fall in the middle. Most of the participating firms in these three industries were incorporated in the 1950s or early 1960s and affiliated with an MNF during this same period. Within this group, only one pharmaceutical firm and one chemical firm is a joint venture between Filipinos and foreigners.

A similar pattern appears when the nationality of affiliated MNFs in each industry is examined. The Japanese dominate the motorcycle and television industries, while the Americans loom large in all the others. There are two European affiliated firms in the pharmaceutical industry (one in a joint venture with an American MNF). In addition, there is one European affiliated firm in each of the soap and detergent, chemicals, and food industries.

Asked why the affiliated MNFs decided to engage in manufacturing in the Philippines, almost all replied that they had some form of economic contact with the Philippines prior to the decision to invest in the firm that I interviewed. Only two indicated they had no prior contact. Of the other 26, all but 6 had been exporting to the Philippines; they already had developed a market prior to their making an equity investment. Five of the other 6 had an equity interest in another firm incorporated in the Philippines, and/or they had licensing agreements with local firms. The sixth firm was importing from the Philippines. These multinationals were not strangers to the Philippine economy.

The respondents were requested to indicate the importance of several factors in the investment decision of the affiliated MNF on a scale of 0 to 5. Twenty-seven of the 28 firms answered. The distribution of responses of some of the factors that were relatively important overall is shown in Table II-3.

The two factors judged most important by the responding firms relate to the market, its size and growth potential. Interestingly, growth of market was given slightly more importance than size in the aggregate and in every industry except food.

Next to the market, tariffs and trade restrictions and foreign exchange controls were judged the most important considerations. Firms tended to give these two factors equal weight, but there were variations. The paper and food industries tended to put relatively less weight on these two factors, while the chemical and television industries tended to rank them both very important. In the other industries, there were variations.

The year of investment by the affiliated MNF appears to be relatively uncorrelated with importance given to tariff barriers or exchange controls. Attempts during the interviews to determine the importance of the imposition of exchange controls or tariffs or other trade restrictions on the timing of the investment decision were not productive. The interviewees did not appear to have the requisite knowledge to provide a useful answer.

Table II-3

Factors Affecting the MNF's Decision to Invest in
the Respondent Firm

Factor	Number of Firms					
	No	Moderate		Extreme		
	Importance	Importance	Importance	Importance	Importance	
	0	1	2	3	4	5
1. Growth of market potential.	1	0	0	6	6	14
2. Proximity to market.	2	1	1	5	6	12
3. Tariffs and other trade restrictions in the Philippines.	4	2	3	4	5	9
4. Foreign exchange controls.	6	2	3	6	4	6
5. Low cost of labor.	4	4	1	6	8	4
6. Availability of specific types of skilled labor	6	2	1	9	8	1
7. Competition from domestic producers	7	2	6	8	4	0
8. Competition from other local affiliates of MNFs	9	1	5	7	4	1
9. Competition in general*	4	1	4	10	7	1

* For each firm, the ranking given is the higher of rankings given to factors 7 and 8.

The consequence of this is that the answers must be interpreted with some latitude. They do not allow us to adequately distinguish between why the possibility of investing in the Philippines was suggested itself, and what factors were important once the question was raised. Tariffs and exchange controls would reasonably seem to be among factors associated with the former, while market size and growth would be relevant to the latter. But it could be the other way around.

The third set of factors that were generally felt to be of importance are those concerned with labor — its low cost and its skills. Interestingly, firms ranked these factors about the same. Only 5 firms differed in their ranking of the two by more than one. And there was a significant demarcation: sixteen firms ranked both 3 or higher; six firms ranked both either zero or one.

On the other hand, there were several factors that in the aggregate were not considered very important: (1) breakdown of licensing or import agreements, (2) complementation with production of other subsidiaries of the MNE, (3) increasing costs in the home country, and (4) government incentives. Some firms did indicate the factors were of importance, but in the aggregate they were overwhelmingly considered unimportant.

Two industries in which MNEs have been investing only since the late 1960s — the motorcycle and television industries — ranked government incentives as being relatively important; however, no other industry did.

These results indicate that government efforts to attract foreign investment through tax breaks, tariff remittances, etc., are not particularly useful, or if they are, it is only in specific industries. The participating firms, to repeat, are almost all of the import substitution type; it would be interesting to know if the same importance would be given to the various factors by export oriented firms.

One other set of factors — competition — should be mentioned as having aggregate importance. In the questionnaire, this factor was ranked in two ways: competition from domestic firms and competition from MNF affiliates. The answers varied considerably, but taken individually they do not suggest competition is very significant. See Table II-3, factors 7 and 8.

However, if the issue of competition is raised independent of its source, a different pattern appears. Several firms appeared to rank competition from either a domestic producer or a MNF subsidiary as being important, but not both. Therefore, we combined the two by taking as each firm's indicator of the importance of competition in general, the higher of its ranking for the two competition factors. See Table II-3, factor 9.

It would appear that competition, measured in this fashion is considered a significant factor in the decision to invest. Of the nine firms that ranked this composite factor 2 or below, one produces primarily

for export and three others are old firms, subsidiaries of MNFs that were in existence prior to independence. Two others are virtual monopolies in the Philippine market. For obvious reasons, competition would be relatively unimportant in their investment decisions. One of the other three was the first MNP to invest in the particular industry, and had elsewhere stated that it was not involved in the Philippine market prior to its investment. Executives of the other two indicated in my interview with them that the MNP had invested in their enterprise for very specific reasons. It was not that competition is unimportant, but rather it was not a factor in the investment decision.

A few other factors were of importance to firms in specific industries, but not to the entire group of participating firms. Desire to geographically diversify production processes was marked high by most of the firms in the motorcycle, paper, and food industries. Adequacy of infrastructure needs was marked somewhat high by firms in the motorcycle, pharmaceutical, chemicals, and television industries. And lastly, the soap and detergent and food industries ranked availability of inputs as being important.

In summary the most important considerations in the investment decisions of the participating MNP affiliated firms, taken as a group are the following:

- (1) the market, its size and growth potential,
- (2) hindrances to trade such as tariffs and foreign exchange controls,

- (3) labor costs and skill availability, and
- (4) competition from both domestic producers and MNP subsidiaries.

Other factors were significant in the investment decision of individual MNPs and of MNPs in specific industries, but they were not widely considered to be of importance.

III. Choice of Equipment

✓ Technology in its more general meaning can refer to equipment, to skills, and to the actual process of production. In this section I am primarily interested in the type of equipment used in the production process: from where did the original equipment come; how similar is or was it to equipment in use in the affiliated MNE's home country facilities; has it been changed significantly since production began; what factors were important in its choice; and who has control over the selection of technology used and product produced.

Although the surveyed firms acquired their equipment from several sources, it was primarily from abroad. See Table III-1. Twenty-one firms indicated that they had imported new or used equipment. On the other hand, although 8 firms indicated that they used equipment made in the Philippines, no firm relied entirely on locally manufactured equipment.

The thirteen firms that answered that they obtained equipment already in use in the Philippines were either joint ventures or multinational firms (MNEs) that had purchased local firms. Three firms indicated they were using equipment already in use in the Philippines but not previously used by the participating firm (response e in Table III-1). Two of these are affiliated with MNEs that had used the equipment in another of their Philippine subsidiaries. The firms in the pharmaceuticals, paper, television, and other electrical appliance industries initially

Table III-1

Source of Equipment at Beginning of
Manufacturing or at Time Investment was Made by
The Affiliated MNP (the Later Date)^a

Source of Equipment	Number of Responses ^b	Number of Firms Responding ^c
a. New and imported to the Philippines	22	16
b. Made in the Philippines	14	8
c. Used equipment imported by participating firm	16	11
d. Equipment already in use by participating firm	10	10
e. Equipment already in use in the Philippines, but not by participating firm	<u>3</u>	<u>3</u>
Total	66	49

^aTwenty-eight firms responded to the question.

^bThree firms supplied answers for more than one production process.

^cSeveral firms acquired equipment from more than one source.

used equipment already existing in the Philippines. In the soap and detergents, food, television, and other electrical appliance industries, firms often imported used equipment. In the remaining industries, as well as in the pharmaceutical and chemical industries, the participating firms relied primarily on imported new equipment. Firms in the food and television industries did not appear to rely primarily on any one source.

Fifteen firms said that there had been significant changes in the technology of at least one of their production processes since manufacturing operations started or their association with a MNF began (the later date). Fifteen said that no major change had occurred, two of which answered both yes and no for different processes.

As might be expected, the more recent ventures did not have significant changes in technology. This is true for the Japanese joint ventures (all formed since 1968) where only one of the seven said that a major change had occurred. On the other hand, all the firms in the soap and detergent industry, which are among the oldest firms in this study, had made significant changes in their equipment. For the firms that began operations in the 1950s and 1960s, there appears to be no correlation between age and changes in technology.

Among the 15 firms indicating a change, 6 answered that the change occurred either over a long period or was continual; 5 answered that the change involved major alterations over a short period; the other 4 did not elaborate.

✓ The initial choice of technology, at least for the majority of the firms, was not dissimilar to that being used by their affiliated MNF in its home country plants. Eighteen of the 28 firms responded that this was the case. Over six of the 12 answering no (two firms said both yes and no) however, indicated that the equipment resembled what was used in home country plants at an earlier point in time. Thus, 22 firms (allowing for double counting) answered that the choice of equipment was directly related to what was being used or had been used in the home country plants of their affiliated MNFs.

Three of the five firms where the equipment was not the same as what their affiliated MNF was using or had previously used, were joint ventures formed since the late 1960s. Two of these are in the television industry; the other, in the other electrical appliance industry. One of the remaining two of these 5 firms dates to the prewar period; in the other, the MNF put in new equipment when it bought into a local firm in the early 1960s.

There appears to be no pattern between changes in the technology of the main production process and either the source of the original equipment or similarity between equipment used in the local firm and that used in home country plants of the affiliated MNF. Nor is there a distinguishable pattern between the source of the equipment and its similarity with that used at some point in home country plants of the affiliated MNF.

The respondents were requested to indicate the significance of a number of factors on their choice of equipment, both at the time of start of manufacturing operations or MNF affiliation (the later date) and currently, on a scale of 0 to 5. See Tables III-2 and III-3. Two factors stand out in the aggregate as being very important, both initially and currently -- market size and equipment cost. In addition, equipment cost of importance in every industry; while the television industry did not place emphasis on market size. Wage costs were of more importance in current choices than in initial ones. Given the much greater emphasis on market size and capital costs, however, it would seem that scale rather than factor prices was of prime consideration in the selection of equipment.

Energy costs, although not considered particularly important in initial choice of equipment, is of at least some significance currently in all except the motorcycle and television industries. Familiarity of Filipino workers with the equipment also appears to be reasonably important to all industries except the chemical and television industries. On the other hand, Philippine government incentives and equipment in use when ownership was acquired by the affiliated MNF (factors 5 and 6 in Tables III-2 and III-3) were considered important neither in the aggregate nor by majority of firms in any of the industries surveyed. Other factors, not important overall, were of significance in individual industries. See Table III-4.

Table III-2

Importance of Factors Affecting Firms'
Initial Choice of Equipment^{a,b}

Factor	Number of Firms					
	No Importance	Moderate Importance			Extreme Importance	
	0	1	2	3	4	5
1. Market size	0	2	2	9	8	10
2. Equipment costs	1	0	1	11	10	8
3. Energy costs	4	5	8	12	2	0
4. Filipino skilled workers, supervisors, and professionals are familiar with this equipment.	4	4	7	7	7	2
5. Philippine government incentives	21	4	4	2	0	0
6. Equipment in use in firm when ownership acquired by affiliated MNF	19	2	3	1	2	4

^aTwenty-three firms responded, with 2 firms providing multiple responses.

^bChoice made at time manufacturing operations began or time when current affiliated MNF made investment in respondent firm (the later date).

Table III-3
Importance of Factors Affecting Firm's
Current Choice of Equipment^a

Factor	Number of Firms						
	No	Moderate			Extreme		
	Importance	0	1	2	3	4	5
1. Market size	0	1	1	6	11	10	
2. Equipment costs	0	0	1	4	12	12	
3. Energy costs	2	1	2	6	6	12	
4. Filipino skilled workers, supervisors, and professionals are familiar with this equipment.	1	1	5	14	6	2	
5. Philippine government incentives	17	5	4	1	2	0	
6. Equipment in use in firm when ownership acquired by affiliated MNP ^a	16	3	2	2	3	3	

^a Twenty-one firms responded, with two firms giving multiple responses.

Table III-4

Importance of Factors Affecting Choice of Equipment by Industry

Factors	Industry															
	Initial								Current							
	Food	Soap	Pharmaceuticals	Chemicals	Motorcycles	Television	Other Electrical	Paper	Food	Soap	Pharmaceuticals	Chemicals	Motorcycles	Television	Other Electrical	Paper
a. No other choice in existence.	V		V		M	V					V		M			
b. No other equipment easily available.			V			V		V			V					M
c. Same as affiliated MNP's home-country facilities.	V	V	V							M	V					V
d. Filipino skilled workers, supervisors, and professionals are familiar with this equipment.	V		V		V		N			N	M		M		M	V
e. Foreign skilled workers, supervisors, and professionals are familiar with this equipment.	V	M	V								M	M				
f. Market size	M	V	V	M	V		N	N	V	V	V	M	V		V	M
g. Wage costs		M					V		V	V	M				V	
h. Energy costs		M		M					V	V	V	M			M	M
i. Equipment	V	V	M	V	M	V	M	M	V	V	V	V		V	V	M

NOTE: V = Very important: ranked 4 or 5 for at least 50 percent of the processes reported by the responding firms.

M = Moderately important: ranked 3, 4, or 5 by more than 50 percent of the processes reported by the responding firms.

As a cross check on respondents' answers, the replies to factor C (same as affiliated MNF's home country facilities) were compared with those for the question on whether equipment initially used was similar to that being used in home country facilities of the affiliated MNF (a) currently and (b) previously. Although the questions are not the same — a firm could be using the same type of equipment, but there may be some other reason for the choice — the pattern of replies was similar. For those that answered Yes for either (a) or (b) and also answered the questions on factor importance, a 5, 4, or 3 was written for 15 cases, and 2, 1, or 0 for 10 cases. For the 5 No replies to both (a) and (b), four answered 2, 1, or 0.

The last issue raised with the respondents about choice of technology has to do with the locus of decision making, both for the choice of products produced and for the choice of equipment. See Tables III-5 and III-6.

The pattern of response should be interpreted with caution. First, it is the owners of a firm — Filipino or foreign — who have legal control and responsibility. Thus if a MNF has an equity participation in a firm, it obviously has the right to participate in decision making. What the question addresses, however, is the locus of managerial decision making. Second, those responding that decisions were made jointly varied widely in their sense of relative responsibility and control. Some noted that the home or regional office was not so much consulted as informed, and

Table III-5

Locus of Decision-Making in Selection of Product Produced

Locus	Number of Firms		
	Subsidiary	Joint Venture	Total
Local firm	8	10	18
Regional or home office	3		3
Jointly	6	2	8
Total	17*	12	29*

* Two subsidiaries (of 15 replying) answered either local or home office and jointly for different processes.

Table III-6

Locus of Decision-Making in Selection of Technology

Locus	Number of Firms		
	Subsidiary	Joint Venture	Total
Local firm	1	6	7
Regional or home office	8	3	11
Jointly	8	3	11
Total	17*	12	29*

* Two subsidiaries (of 15 replies) answered either regional or home office and jointly for different processes.

the latter simply ratified local decisions. Others explained that it depended on the size of expenditure involved: the greater the monetary amount involved, the more the regional or home office was consulted or brought into the decision making process. A few, on the other hand, implied that local decision making, although initiatory, was entirely subordinate to the home office. As one young executive puts it, even day-to-day price adjustments had to be cleared through the MNP headquarters.

Keeping these factors in mind, it appears that the local firms had considerably more control over product choice than over selection of technology. Two-thirds of the responding firms indicated that at least in some lines, the choice lies entirely within the firm, and only 11 percent answered that the regional or home office had entire control.

On the other hand, only 7 firms (25 percent of those responding) answered that the locus of decision making for which technology to use rested entirely on the local unit. Interestingly, all except one of these was a joint venture. Over 40 percent of the surveyed firms (and over 50 percent of the subsidiaries) indicated the local firm was not primarily responsible for technology choices.

There is a substantial difference in decision making between joint ventures and subsidiaries. While only half of the managers of the joint ventures responded that their affiliated MNP was involved in decisions on choice of technology, all of the managers of subsidiaries answered that their home or regional office was consulted. Even allowing for some variations in managers' opinions of what constitutes participation, the difference is striking.

✓ IV. Technology Transfer

Technology transfer can be broken down into several components.

(In this section, I will look at transfer of technology embodied in equipment and transfer of knowledge of production processes. In the following section, the development of management and skilled labor will be examined.

a) Only 5 of 28 responding firms said that equipment similar to that being used in their plants is not being used elsewhere in the Philippines. (See Table IV-1.) One of the 5 pointed out that this was true only for some product areas. Four of the 5 that said similar equipment was not being used elsewhere in the Philippine economy, are subsidiaries of multinational firms (MNFs, i.e., MNF equity of more than 70 percent), while only one is a joint venture. The 4 are either dominant in the markets for which they produce, or share it with only one or two other firms.

b) For those 24 that responded yes to the question, they were asked whether the other firms which had similar equipment were at least partly owned by MNFs. Twenty-two of the firms replied, 19 answering Yes, and 10, No. Seven answered both ways. Only three firms said that the equipment was being used only by other firms without substantial foreign equity.

It does not appear that the firms interviewed have any monopoly on the equipment being used. On the other hand, the replies indicate that there is a much greater probability that other firms with the same or similar type of equipment are also affiliated with MNFs.

Table IV-1
Use of Equipment by MNP-Affiliated Firms

Question	Number of Firms			Total*
	Yes	No	No Answer	
a. Is equipment similar to that currently in use by your firm being used elsewhere in the Philippines?	24	5	0	28
b. Was your firm the first to use this type of equipment in the Philippines?	10	19	0	28
c. Has the equipment that your firm is using (or has previously used) served as a model to be duplicated or purchased by domestically-owned firms?	7	22	0	28
d. Is the equipment that your firm is using commercially available on the open market?	27	22	0	28
e. If yes to "d", have important parts of the equipment been modified in significant ways for use by your firm?	13	11	2	25
f. If yes to "e", is the modified equipment available to domestic producers?	5	8	0	13
g. Are significant elements of your firm's equipment or manufacturing process patented in the Philippines				
(1) by you or your affiliated MNP?	7	21	0	28
(2) by other firms and available to your firm through licensing agreements?	9	21	0	28
h. If yes to either (1) or (2) of "g", is this equipment or process available to domestic firms?	4	7	2	13
i. Is there significant know-how in your firm's production process that would preclude domestic firms from producing the type of products manufactured by your firm?	11	16	0	28
j. Are imported inputs in your production process patented by your firm or your affiliated MNP or by some other firm and available to you through licensing arrangements?	13	13	2	28
k. If yes to "j", do domestic firms have access to these inputs?	6	6	2	13

* Some firms answer both yes and no for different processes.

Next we inquired as to whether the firm being interviewed was the first to bring the equipment to the Philippines; that is, if they were the ones that initiated the transfer of technology. Only ten firms answered that they had been the first to use the equipment in the Philippines, although two more noted that they were the first to bring in some parts of the equipment package. Since most of those interviewed had more than one product line, more than one firm in the same industry could reply yes. The yeses were concentrated in the soap and detergent, chemical, paper, and food industries.

Important as being first in the technology transfer process is whether the firm has been a model for others to follow in their choice of equipment. Of course it is difficult to know in many cases whether one's choice of equipment has influenced others, but we asked the executives to use their judgment. Only 7 of 28 responding replied in the affirmative. They were spread out through the industries in our survey: motorcycles, soap and detergent, pharmaceutical, food, and the electrical appliance industries.

Part of the reason for such a small proportion might be that the equipment is not accessible to others. We asked. Interestingly, 25 firms said that the equipment they were using was available on the open market. The four firms answering that the equipment was not available (one firm answered both yes and no, for different product lines) were not concentrated in any one industry, nor did they appear to be monopolies.

Thus we must conclude that other types of equipment are available for producing the same products manufactured by those which answered No.

Among the 25 firms that said that the equipment that they were using was available on the open market, 13 replied that they made modifications on the equipment before using it. Only 5 of these answered that the modified equipment was available to others. If we combine those answering "equipment not available to others" with those "modified equipment not available to others," we have 11 firms, concentrated in the motorcycle, soap and detergent, chemical, and food industries.

The question of the ability of domestic manufacturing firms to produce products in competition with MNFs, was also examined by inquiring into whether or not the equipment or process used was patented, whether by the affiliated MNF or some other source. Only seven firms replied that their product or process was patented in the Philippines and not available to others. Four of these had answered that either the equipment or modified equipment was not available.

Finally, the subject was approached by asking if there was any significant know-how in the production process that would preclude competition from domestic firms. Twenty-seven firms responded, 11 answering in the affirmative, 16 in the negative. Eight of those replying yes had indicated in earlier questions that the equipment, or a modification of the equipment, was not available to local producers, or that patented equipment or processes that were employed were not available to local producers.

In the three approaches to the question of whether there were impediments to the diffusion of technology that has been transferred by MNFs, we identified 17 firms that responded affirmatively in one form or another to the question. Sixty percent of the interviewed firms are therefore involved. The industries importantly affected are motorcycles, soap and detergents, chemicals, food, and television.

(1) In discussing the above issues with the executives with whom I spoke, several interesting points were repeatedly made. First, there was widespread comment among those interviewed that the primary hindrance to domestic firms entering into production was not inaccessibility to equipment. Equipment was available generally on the open market. Some did suggest that the equipment they were using was technologically better or preferable to that which could be purchased. But that is a separate issue.

(2) Second, some Filipino joint venture partners considered access to new technology a major advantage in having a partnership with a MNF over going it alone or limiting the arrangement to technical licensing. It was not that they could not produce the product; they already were. But with limited or delayed access to new developments, they felt themselves at a competitive disadvantage.

(3) Thirdly, many of those interviewed stressed that the advantage of the MNF was in process technology rather than in equipment technology; how

to produce it better. As one executive puts it: the basic equipment is the kettle -- textbook technology. But then there is the art. This, the MNP affiliated firms felt, was their strong point. Even if the process technology could be purchased, the accumulated experience of the MNP gave them an advantage. One foreign executive went so far as to communicate both on the questionnaire and in the interview that the questionnaire was weighted too heavily toward equipment and not enough toward process, including the management of the process. Based on the information that I have gathered in this survey, he is undoubtedly correct. There may be certain industries in which lack of access to equipment is the major barrier to technology transfer by domestic enterprises, but this does not appear to be the case in the industries included in this study.

Finally, one qualification should be made to what has been said. Most, but not all, of those interviewed emphasized that the technology in use in their firms in the Philippines is relatively simple -- welding, painting, and assembly for motorcycles; formulation, mixing and packaging for pharmaceuticals, chemicals, and food; assembly for television and other electrical appliances. One foreign executive at first insisted that his firm did not engage in manufacturing in the Philippines inasmuch as no chemical reactions were taking place in its plants. Rather, they were only formulating. I pointed out that in the Philippines this firm's production is considered manufacturing. Another executive suggested that packaging was the most sophisticated part of the production process in his firm.

Access to equipment technology may be a limiting factor to transfer of technology by domestic firms at earlier, more basic, stages of manufacturing. But currently, that technology is not being transferred by MNFs either.

Other areas of technology transfer were explored briefly. Thirteen of 26 firms responding indicated that they were using imported inputs patented in the Philippines under license. Six of these, almost half, indicated that these inputs were not available to local firms. Two others have the particular market to themselves and did not reply to the second part of the question. The firms responding affirmatively to the first part of the question were concentrated in the motorcycle, soap and detergent, pharmaceuticals, and paper industries. Others were in the chemical, television, and other electrical appliance industry. However, those replying that domestic firms would not have access to the patented inputs were not concentrated in any one industry.

The firms were also asked whether they engaged in research and development (R & D) activities in the Philippines. It is well-known that little or no basic research is carried out locally by MNF affiliated firms, but surprisingly, 15 of the 28 firms interviewed indicated that some R & D is undertaken. Part of this, perhaps the majority, is related to marketing, but other efforts are product oriented. In some cases it is to adjust the product to meet local standards of hearing, texture, color, taste, or smell; adaptations for climatic differences between the Philippines and

the home country of the MNF are at times called for. In one case the respondent pointed out that a new product — detergent bars — had been developed and was now being used elsewhere. The major areas of R & D, however, appeared in the area of quality control.

Lastly, firms were asked whether government policy has had an impact on the firm's choice of plant and equipment or on the nature of the production process. Twenty-seven firms responded; 8 said yes; 19, no. Six of those responding yes gave a reason: two pointed to local content requirements; one mentioned pollution controls; two named import procedures for plant and equipment; and one said the investment incentives act. Interestingly, the two who mentioned import regulations had very different reasons. One felt that controls on machinery imports had kept the number of firms in the industry reasonable, given the size of the market. The other firm complained about delays in obtaining authorization to import equipment as being of importance. Financial incentives appear not to have been significant, with the possible exception of the one firm that mentioned the investment incentives act.

V. Employment and Skill Development

In many ways this is the most unsatisfactory section of the questionnaire. Although useful comments were obtained both on the questionnaire and in the interview, there are large gaps in the data and some ambiguities in the information supplied. In retrospect, insufficient attention was given to defining what jobs fall into which employment groups and in the content of training programs. Nevertheless, the information as we have it will now be presented.

The surveyed firms are almost all large; both among manufacturing firms with foreign equity and among manufacturing firms in general. Nevertheless they varied quite considerably in size. The largest is outsized compared with the rest. Its total employment is over 5 times than that of the second largest. But it is also an example of one of my problems. If employment is restricted to the largest firm's manufacturing activities, it is only slightly less than twice as large as the number two firm in the study.

For the twenty-three firms on which we have employment information (excluding the largest), employment varies from over 2,500 to slightly less than 93. Pharmaceutical and soap and detergent firms were generally among the larger; food, motorcycle, and chemical firms, among the smaller. Television and other electrical appliance firms tended to fall in the middle of the size rankings. The mean size of the 23 was 534; the median, 341.

The surveyed firms were requested to supply employment information over a number of years by job category; however, most only provided data for the most recent years. In Table V-1, a breakdown by percent of employees in each job category is given for 1979. As can be seen the standard deviations are large, reflecting the wide variation in percent of employees assigned to each job category. Very little of the variation can be attributed either to industry differences or to size of the firm.

Several factors may be involved. No doubt the different firms simply do not organize production in the same way. For example, some may hire casuals²; others may not. As can be seen in Table V-1, if unskilled and casuals are combined, the coefficient of variation falls into the range that measure takes for the other job categories.

Inasmuch as some firms locate management offices within the factory grounds and others do not, I made a decision to ask for total employment rather than plant employment data which would require an estimated division of the office staff between work associated with production and that associated with company management. However, another difficulty arose. Some consumer goods firms engage in considerable credit operations, while others do not. This tended to give a wide variation in the proportion of total employment attributable to the office staff.

²Casual worker, or casual, is the term used in the Philippines to refer to an employee hired on a temporary basis and not eligible for many of the benefits legally due other workers.

Table V-1

Distribution of Employment by Job Category^a

Job Category	Average Proportion of Total Employment			
	Weighted Average ^b (%)	Unweighted Average (%)	Standard Deviation ^c	Coefficient of Variation
1. Unskilled workers and casuals	42.0	36.85	22.73	0.62
a. Unskilled workers	29.7	25.48	21.15	0.83
b. Casuals	12.3	11.36	10.65	0.94
2. Skilled workers	24.7	26.35	15.84	0.60
3. Office staff	20.6	23.14	15.86	0.69
4. Production supervisory staff	4.1	4.98	2.82	0.57
5. Professional and managerial personnel	8.7	9.06	6.05	0.67

^aTwenty-three firms responded.^bWeights are total firm employment.^cUnweighted.

The second problem — no doubt inextricable — concerns the division of factory work between skilled and unskilled labor. I had hoped that in each industry (if not manufacturing as a whole) certain job categories would be commonly thought of as skilled and others would be considered unskilled. That assumption may be incorrect. There was a wide difference reported in the division between skilled and unskilled workers by firms even in the same industry.

Part of the problem is what constitutes skill. One rather large firm reported that it did not employ unskilled labor. The person interviewed pointed out that since their firm uses a large range of chemicals in their production process, even those individuals working in storage areas had to be skilled.

Another problem is that several executives in their interview with me classified many of their factory workers as semiskilled. No doubt these executives were not consistent in which category this group of employees was placed. I shall return to a discussion of skill below, but first, I wish to explore the question of employment of expatriates.

The executives were asked the number of non-permanent resident foreigners they employ in their firms. Twenty-six firms replied. Half employ no more than one foreigner. See Table V-2. The length of tour is 3 to 5 years, with over half of the 15 firms replying that the expatriates usually stay 4 or 5 years. Table V-3 gives the description of

Table V-2

Number of Non-Permanent Resident Foreigners Employed in
MNF-Affiliated Firms^a

Length of Stay	Number of Firms									
	Number of Foreigners per Firm									
	0	1	2	3	4	5	6	7	8	20+
On a long-term basis	8	5	4	3	3		1		1	
On a temporary or rotational basis	21	1	1	1	1					
Total	7	6	3	3	2	2			2	1 ^c

^aTwenty-five firms responded.

^bMore than a year.

^cNumber on long-term and on short-term assignment not obtained.

Table V-3
Positions of Non-Permanent Resident Foreign Nationals in
MNF-Affiliated Firms^a

Position	Number of Firms Mentioned
1. Management/Top management/ Department heads	8
2. President/General manager	5
3. Marketing manager/Director/ Consultant	4
4. Finance manager/Director/ Consultant	4
5. Production manager/Director/ Consultant	4
6. Comptroller	1
7. Plant engineer	1

^aSeventeen firms responded.

duties of the expatriates that are assigned to the Philippines on a long-term basis.

There is some difference by nationality in the long-term assignments of non-Filipinos. Firms affiliated with American and European MNFs tend to indicate that the President/General Manager and/or top management in general is staffed by a foreigner, while firms affiliated with Japanese MNFs usually gave specific titles or functions (other than President or General Manager) for jobs assigned to foreigners. On the other hand, all but one of the eight MNE affiliated firms in which no foreigners are assigned on a long-term basis are affiliated with American MNFs.

When asked why foreign personnel were used, the most referred to reply was the lack of qualified Filipinos for the position. See Table V-4 for a listing. The reply, of course, begs the question of why qualified Filipinos are not available. No doubt there are adequate reasons in some cases, but not in others. In exploring the topic with the executives being interviewed, more information came to the fore. One mentioned specifically that the statement was made from the point of view of the home office of the MNE.

Several managers suggested that as a matter of company policy, foreigners were being phased out over time. In one case a time table was laid down, which obviously implies that management feels that qualified personnel can be found locally.

Table V-4

Reasons for the Employment of Non-Filipino Personnel in
MNF-Affiliated Firms^a

Reason	Number of Firms Mentioned
1. Qualified Filipinos not available	7
2. Communication with affiliated MNE	7
3. Training/Career development of foreign personnel	3
4. Multinationalization of management	1
5. Security of specific know-how owned by affiliated MNF	1
6. Consistency of policy	1
7. Firm a wholly-owned subsidiary of the MNF	1
8. Safeguard interest of the MNF	1
9. To teach all aspects of management to local personnel	1

^aSeventeen firms responded.

Another executive mentioned that in one case, the salary that would have had to be paid to a Filipino his firm felt was qualified, was thought to be too high; a foreigner was hired instead. It wasn't that the Filipino would have had to be paid more than the foreigner (the opposite was in fact the case), rather, to pay the necessary salary to obtain the Filipino would have unbalanced the pay scale for Filipino employees.

A manager of a firm which does not employ any expatriate on a long-term basis, described the activities of non-Filipinos temporarily assigned to his company as providing specific technical services like erection and starting up of new plants and equipment. Other firms mentioned in passing that foreign technical experts are assigned to their firm from time to time for a period ranging from a few days to a few months.

One executive claimed that Filipinos are used for management positions when they are qualified and adequately trained. Given the long time this particular MNE has been operating in the Philippines, I suggested that his statement was not a particularly favorable comment on the local subsidiary's training program. In the ensuing discussion, the executive acknowledged that managers prior to him may have had some biases. But he also thought this was changing.

These biases, particularly with regard to American MNEs, have been documented widely elsewhere and no doubt they are present in the Philippines. In spite of the rhetoric one reads, I perceived no sense in my

discussions that the affiliated MNFs were not associated with particular countries, as contrasted with being truly multinational. Many I spoke with simply assumed that the top management slot is to be filled with a person from the MNF's home country (although the top position in two subsidiaries of American MNFs are filled by an Australian and Briton, respectively).

From a few other firms, I obtained a somewhat different impression. They emphasized the multinationalization of their management in two ways: foreigners are undergoing training as part of their assignment to the local firm and Filipino management from the local affiliate are being assigned abroad. The number so far, at least in the firms which I interviewed, is small but it may suggest a future pattern of more importance.

One Filipino executive made an interesting point when he suggested that the local assignment of a person (in this case a Japanese) from their joint venture partner was useful as a "catalyst." Problems periodically arose in obtaining the necessary imports on time; adjustments in material inputs were occasionally necessary and production problems sometimes occurred. In these cases, having someone from the MNF affiliate on hand to observe the problem and communicate with the home office was quite useful.

Firms were asked about the educational training of their workers. There was little variation in minimum educational requirements by job :

category. Unskilled and skilled workers are required to have at least two or three years of high school or vocational school education; the office staff and production supervisory personnel are required to have some education beyond the high school level; and the professional and managerial staff are expected to have a college degree. See Table V-5 for the average minimum requirements.

The surveyed firms were also asked how many workers had received training by their firm in the last 5 years: (1) in a full-time training program, (2) in a part-time training program, and (3) on-the-job. The question was asked about production workers, clerical workers, and professional and managerial staff. Twenty-one firms responded with numerical information. In total they had given at least some training to 4,557 employees. Nineteen of those firms supplied total employment information for 1979. On the average, this group has trained during the past 5 years an equivalent of almost 40 percent of their 1979 work force. To gain perspective on this figure, we inquired about the job stability of employees. Eighteen firms responded, although not all filled in all the information requested.

We asked for information by job category in two ways: first, what is the average duration of employment, and second, what is the average annual turnover rate (number of terminations or resignations as a percentage of the average work force in that job category). Although individual firms reported variations by job category for both measures, the averages turned out to be approximately the same.

Table V-5

Average Minimum Education Requirement of Employees by
Job Category^a

Job Category	Number of Years of Schooling Required ^b
Unskilled production workers	8.76
Skilled production workers	9.13
Office staff	12.13
Production supervisory personnel	13.00
Professional and managerial personnel	14.35

^a Average of twenty-three firms that responded to the question.

^b Elementary education = 1-6 years; vocational and high school education = 7-10 years; technical school and college education = 10-14 years; post-graduate education = more than 14 years.

Average duration of employment = 6 years

Average annual turnover rate = 13 percent

The figures should be taken only as indicative of the norm; there are wide variations. The two approaches, however, do give approximately the same information. If the average duration of employment is 6 years, after that time period only half of an initial group would remain with the firm. On the other hand, if an average of 13 percent resign per year, a little over 43 percent of an initial group would still be on the job after 6 years.

If a work force were stable, to have trained an equivalent of forty percent of the number employed per year would have one meaning. As it is, with rather significant job movement, at least on the average, the training figure indicates that a much smaller proportion of those who worked for the firm over the five-year period received training.

More information can be gained by looking at which groups of workers were trained under what kinds of programs. See Table V-6. A large majority of those trained are production workers (over 70 percent), but most of their training occurs on the job. Secondly, for all three groups of employees, a smaller proportion received full-time training than either part-time or on-the-job instruction. However, almost as many in the professional and managerial group received full-time training as did production workers.

Table V-6

Number of Employees Trained in the 1974-79 Period by
Job Category and Type of Training Program^a

Type of Training Program	Job Category			Total
	Production Workers	Clerical Workers	Professional and Management Personnel	
Full-time training program	271	40	243	554
Part-time training program	631	322	681	1,634
On-the-job training	1,836	225	308	2,369
Total	3,271	587	1,232	4,557

^aData for 19 firms that filled out requested information.

In Table V-1, I reported that an average of between 52 and 55 percent of the surveyed firms' work force are skilled or unskilled production workers (between 63 and 67 percent if casuals or temporary workers are included). On the other hand, the professional and managerial staff constitutes only about 9 percent of the work force. The training programs are obviously weighted towards this latter group.

The training programs vary widely in duration, ranging from 2 or 3 days to 6 months in the case of the full-time and part-time training programs, and a year and a half for on-the-job programs. (One firm reported a two-year, full-time training program for managers; no doubt this should be classified as on-the-job training.) The median time period reported was approximately 4 or 5 weeks for the full-time training program and about two weeks for the other two. Many of the shorter programs are no doubt little more than orientation sessions. Part-time training programs for the bulk of the firms reporting such a program last for three to four hours per day. The full-time programs are generally listed as 6 to 8 hours per day. The few that were listed as less than that are probably misclassified.

The data from the questionnaire can be summarized as follows: on the average, the training programs are primarily on-the-job type, at least for production workers; they are of reasonably short duration; and the longer, full-time programs are heavily geared toward management and professional staff. However, there are wide variations, with some firms undertaking almost no training and others seemingly providing very extensive programs.

The executives were asked why they undertook such training programs for production workers. Their responses are given in Table V-7. The most important reasons are to increase proficiency of skill and to acquaint workers with new equipment. These two reasons imply that the employees have access to an existing skill pool. Factors related to the lack of workers with existing skills or an insufficient supply are not unimportant, but only in the television and other electrical appliance industry are they as significant as the first two mentioned.

The firms were also asked to indicate in what areas they train their professional and managerial personnel. The areas that appeared to be most emphasized are (1) plant supervision, (2) administrative technique, (3) budget planning and costing, (4) sales and distribution, and (5) quality control and improvement.

One of the advantages of being affiliated with an MNF is to be able to take advantage of its accumulated knowledge and experience, not only as it is brought to the Philippines, but also in the firm's home office and elsewhere. Twenty-seven of the surveyed firms reported that individuals in their organizations had been sent abroad for anywhere from one week to 6 months to attend conferences, to have discussions with personnel at the MNF headquarters, and undergo training. In addition, a few firms reported that senior staff had been seconded to other subsidiaries of their affiliated MNF.

Table V-7

Reason for Undertaking Training of Production Workers^a

Reasons for Training Programs	Number of Firms					
	No	Moderate		Extreme		
	Importance	Importance	Importance	Importance	Importance	Importance
	0	1	2	3	4	5
1. Lack of persons with required skill in labor force.	3	1	5	6	6	3
2. Tight labor market in skill area.	5	1	7	3	5	3
3. To increase proficiency of existing skills of workers.	0	0	2	2	9	11
4. To acquaint workers with new or improved equipment.	0	1	0	7	6	10
5. To develop loyalty to the firm.	3	5	4	8	1	3

^aTwenty-five firms responded.

The number sent abroad in the last five years ranges from 3 to 4 to over 50. The median number for the 27 firms responding is 11, or a little over 2 per year. It is difficult to estimate the average time spent abroad, given the ranges listed. However, it would appear reasonably accurate to say that at least 60 percent of those going abroad went for a month or less.

I asked the executives what type and level of skilled workers were needed in their firm. Most replied that their needs are limited to machine operators, mechanics, carpenters, and other repairmen. In most areas, the pool of skilled manpower is already available in the Philippines. The skills need upgrading; they need to be "focused" to the needs of the firm; and several mentioned that the workers need to be motivated to attain a higher degree of work discipline. At times they have to be trained to work on the particular equipment used in the firm's plants. However, from my conversations I received the impression that there is relatively little transfer of new skills by the affiliated MNEs to the Philippines. The contribution is more in the upgrading and the refining of existing skills. There are, however, exceptions to this generalization.

In addition, both skilled workers and managers are generally not transferring from MNE-affiliated firms to domestic firms. With some significant exceptions, those I interviewed reported that because of

higher wages and better working conditions, those that transfer almost always move to other MNF-affiliated firms. In addition, a goodly number are using their experience as a springboard to go abroad, either as immigrants or as contract workers. (Almost every executive I interviewed mentioned the loss of skilled workers to jobs in the Middle East.) There is relatively little diffusion of managerial and labor skills from the MNF-affiliated firms to local firms.

VI. Impact on Competition

Two types of information were requested: first, what type of product is produced and where and to whom is it sold; second, who are the participant firms' major competitors and what are the factors contributing to their success in the market.

The firms interviewed primarily produce consumer goods for the domestic market. On the average, more than 70 percent of the sales of their output can be classified as consumer durables or non-durables (see Table VI-1). In only two of the eight industries did the firms, on the average, classify less than 70 percent of their output as consumer goods: motorcycle firms produce primarily transportation goods and chemical firms divide their output among intermediate inputs for manufacturing, agricultural inputs, and consumer durables.

As mentioned previously, the firms interviewed are primarily import substitution firms. Eighteen of 27 firms responding said that all of their output is sold domestically and 3 more answered that they export less than 5 percent. Four of the remaining 5 firms export between 15 and 22 percent of their output. The last firm, the only real exporter, sells only about 40 percent of its output domestically. Three

Table VI-1

End Use of Output by Percent of Sales^a

Type of Good	Percent of Sales ^b
Capital equipment	3.5
Transportation equipment	9.2
Spare parts, business, and transportation supplies	0.2
Intermediate inputs for manufacturing	7.4
Agricultural inputs	6.3
Consumer durables	22.0
Consumer non-durables	51.7

^aTwenty-eight firms responded.

^bIn calculating industry and aggregate percentages, firm percentages were weighted equally.

of the 6 who exported more than 5 percent of their output in 1979 are in the food industry. The others are in soaps, chemicals, and other electrical appliances. The largest export market of the responding firms is the United States, followed by Europe and Asia.

Two criticisms have been put forth with regard to import substituting foreign investment; one is that products are urban-oriented; the other is that their sales are directed toward higher income groups. Both biases appear in the target markets of the firms that I interviewed. On the average, 25 firms responding to the question indicated that they sell almost one-half of their output in the Metro Manila area. (The question was: where is the firm's target sales market?). Therefore, the higher sales in the Metro Manila area should reflect the location of final users. See Table VI-2:

Only two industries -- motorcycles and chemicals -- sell less than 50 percent of their output in the Metro Manila area. Interestingly, motorcycle firms sell their output in roughly the same proportion in each of the five areas (20 ± 5 percent). The higher percentage of sales outside Metro Manila of the firms in the chemical industry reflects the importance of products they manufacture for agriculture and wood products industries:

Table VI-2
Target Domestic Sales Market by Region by Percent of Sales^{a,b}

Region	I n d u s t r y										Total	Population 1975 ^c (Percentage of Total)
	Food	Soap and Detergent	Pharmaceuticals	Chemicals	Motorcycles	Television	Other Electrical Appliances	Paper				
Metro Manila	56.3	51.2	42.3	25.2	24.9	54.5	54.8	73.2	46.5	11.8		
Central Luzon, Southern Tagalog and Bicol	11.3	15.5	16.5	21.0	20.0	19.4	15.2	6.4	16.2	30.0		
Northern Luzon	8.7	7.3	9.5	16.3	18.2	9.7	7.5	5.8	10.8	12.4		
Visayas	13.3	14.0	14.4	12.6	16.5	8.5	12.0	7.7	12.3	24.1		
Mindanao	10.5	12.0	17.3	25.0	20.4	8.0	10.5	6.9	14.2	21.7		

^a Twenty-five firms responded.

^b In calculating industry and aggregate percentages, firm percentages were weighted equally.

^c Bicol was not included in the questionnaire. See discussion in the text.

If we compare sales and population, a pattern does appear, at least for some industries. Two problems should be mentioned, however. First, the respondents may not have grouped the areas of the country into regions in the same way that I did. This would be particularly the case in distinguishing Northern from Central Luzon and Metro Manila from the surrounding area. In addition I inadvertently left Bicol out of the listing of regions. Inasmuch as each of the responding firm's distribution of sales added to 100 percent, I assume that Bicol is included with Central Luzon and Southern Tagalog. But this may not be correct. Second, in some cases the replies are approximations. Nevertheless a comparison can be made, even if only in a rough way.

In Table VI-3, the ratio of average percent of sales of the firms in an industry in each region to the proportion of population in that region is given. The ratio can be roughly interpreted as sales per capita in the region relative to industry sales per capita in the country as a whole.

The urban bias can be easily seen. Half of the industries sell 4 to 5 times as much on a per capita basis in Metro Manila as they do in the country as a whole. Two of the extremes -- paper and chemicals -- can be explained in part because a portion of their output is an intermediate input. On the other hand, why the sales of the motorcycle industry

Table VI-3

Estimate of Responding Firms per Capita Sales by Region Relative to Total per Capita Sales^a

Region	Industry									
	Food	Soap and Detergents	Pharmaceuticals	Chemicals	Motorcycles	Television	Other Electrical Appliances	Paper	Total	
Metro Manila	4.77	4.34	3.58	2.14	2.11	4.62	4.64	6.20	3.94	
Central Luzon, Southern Tagalog, and Bicol	0.38	0.52	0.55	0.70	0.67	0.65	0.51	0.21	0.54	
Northern Luzon	0.70	0.59	0.77	1.31	1.47	0.78	0.61	0.47	0.87	
Visayas	0.55	0.58	0.60	0.52	0.69	0.35	0.50	0.32	0.51	
Mindanao	0.50	0.55	0.80	1.15	0.94	0.37	0.48	0.32	0.65	

^aRatio of average percent of sales of responding firms in an industry by region to proportion of 1975 population in that region. Ratios from Table VII-2.

^bSee note c, Table VII-2.

relative to the other industries are low in Metro Manila and high in Northern Luzon and Mindanao is not clear. Perhaps it is simply that the market for motorcycles is saturated in some areas and growing rapidly in others, or perhaps a particular firm's market is stronger in some areas of the country than other areas.

Outside Metro Manila, if allowances are made for the crudeness of the measure we are using, relative per capita sales are roughly similar across industries (other than paper, chemicals, and perhaps motorcycles) and regions. Most of the values fall in the range of 0.5 to 0.8, with pharmaceutical sales being on the high side and television sales being higher in Luzon and lower elsewhere.

On a per capita basis, the respondent firms are selling 5 to 8 or 9 times as much per capita in Metro Manila as elsewhere. Without comparable data, it is impossible to know whether the pattern of sales of domestic firms is any different, but I doubt that it is. In either event, the data the firms provided give us a good indication of how concentrated the enjoyment of manufactured goods is.

I asked for a breakdown of regional data between urban and rural sales, but most respondents did not have the necessary information. However, if we can extrapolate the differences in per capita sales between Metro Manila

and the rest of the country to give us some indication of the difference in per capita sales between urban and rural areas within the regions outside Manila, the lack of a flow of goods to the rural masses becomes apparent.

Examining the target sales market of consumer goods sold domestically, it is obvious that the firms associated with multinationals, with some exceptions, sell to the more affluent. On the average, one-third of the domestic consumer goods sales of the 20 firms responding to the question are directed to families with incomes of ₱5,000 per month and above. More than half their sales are directed to families with incomes of ₱4,000 per month and above, while only about one-fourth of the consumer goods go to families with ₱2,000 per month or less. See Table VI-4.

Industry variation in percentage of sales by income class is much greater than by region. The soap industry's sales are directed more toward the lower income groups (that is, toward the majority of the population). In other industries in which goods are produced that have an element of necessity -- pharmaceuticals, motorcycles, television -- a large proportion of the sales is made to families in the ₱2,000 to ₱4,000 per month range. Finally, luxury goods -- food, paper products, and other electrical products (airconditioners, refrigerators, sewing machines) -- are sold primarily to the more affluent.

Table VI-4

Target Domestic Sales Market for Consumer Goods by Income Group by Percent of Sales^{a, b}

Monthly Family Income	Distribution of Sales (%)								
	Food	Soap and Detergents	Pharmaceuticals	Chemicals	Motorcycles	Television	Other Electrical Appliances	Paper	Total
₱5,000 or more	60.9	8.0	17.1	50.1	21.7	7.5	39.3	25.0	32.5
₱3,000 to ₱4,999	18.8	7.2	34.2	18.8	12.7	25.0	12.3	52.5	22.6
₱2,000 to ₱3,999	15.3	33.6	25.4	15.6	10.3	45.0	20.0	15.0	20.7
₱1,000 to ₱1,999	4.7	28.6	17.7	8.7	11.6	20.0	8.3	5.6	11.4
Less than ₱1,000	0.3	22.6	5.6	6.8	43.7	2.5	20.0	2.50	12.8

^a Twenty firms responded.

^b In calculating industry and aggregate percentages, firms were weighted equally.

The extent of concentration of sales to upper income groups can be seen by contrasting the distribution of sales with that of family income. Unfortunately the relevant surveys were taken in the mid-1970s.³ The Population, Resources, Environment, and Philippine Future (PREPF) Survey was taken in 1975; the Philippine Social Science Council (PSSC) National Survey was taken in late 1973 and 1974. Both surveys (as do others) suffer from under-reporting, particularly of upper class families.⁴ In addition, the no response rate in the PREPF survey was almost 5 percent.

Nevertheless, crude adjustments can be made to give an indication of current distribution of income. I corrected for nominal income changes by multiplying the income levels of the PREPF survey by 2.75 and those of the PSSC survey by 2.50 and assumed that the no response rates were entirely in the highest income group. These adjustments

³ Information discussed here is from Mahar Mangahas and Bruno Barros, "Distribution of Income and Wealth: A Survey of Philippine Research," Philippine Development Studies Series Working Paper 7901. "Philippine Institute of Development Studies, July, 1979."

⁴ Mangahas and Barros, pp. 27, 33.

Table VI-5

Estimate of Distribution of Family Income, 1980

A. PREPF Income Distribution ^a			
Income per Month ^b		Percent	Cumulative Percentage
Poor	Below ₦2,084	61	
Lower Class	₦2,084-₦4,166	21	82
Middle Class	₦4,167-₦10,416	14	96
Upper Class	₦10,417 and above	5	100
Rich	₦20,833 and above	1	100

B. PSSC National Survey ^a			
Income per Month ^b		Percent	Cumulative Percentage
Below ₦230		10.67	
₦230-₦1,145		41.23	51.90
₦1,146-₦2,291		23.61	75.51
₦2,292-₦4,583		11.44	86.95
₦4,584-₦6,875		4.04	90.99
₦6,875 and above (including 4.75% no response)		9.01	100.00

^aSee text for discussion of data and sources.

^bThe income ranges are a consequence of changing the annual income figures of the surveys to monthly income figures for our purposes.

obviously bias the percentages upward. See Table VI-5. Even then, the concentration of sales among the well-to-do in most industries surveyed becomes apparent.

The soap and detergent industry appears to sell to the various income groups roughly in proportion to their size in the population; even so, the poorest group is underrepresented, and the other groups, somewhat overrepresented. The motorcycle industry is the only industry in which firms reported selling to the poorest group a percentage of their output larger than what that group represents in the total population.

On the other hand, firms in all the industries, on average, reported selling to the higher income groups a proportion of their output as large as what these groups represent in the population. Food, paper, and chemical industries appear to be the most extreme in this regard.

At one level, the explanation for distribution of sales among regions and income groups is obvious -- needs are not backed up with purchasing power. But at another, it is not so. Poor as the masses are, especially those in the rural areas, they are not completely outside the market economy. The firms interviewed, however, do not appear to be producing the bulk of their products for this market; rather the emphasis is on those groups with sufficient resources to enter the stage of consumerism. There

are exceptions, no doubt, and as I indicated above, there is no reason to believe the problem is limited to firms affiliated with MNPs. But it should be a warning to those who look at the advertisements and crowded stores and conclude that the plight of the people as a whole is improving.

It is difficult to generalize about the extent to which MNPs compete among themselves and the extent to which they compete with domestically-owned firms. In some markets -- detergents, canned fruits, other food products, toilet soaps, baby care products, infant formula, dental creams, sanitary paper products, dry cell batteries, brake fluid, adhesives, resins, incandescent lamps, sewing machines, refrigerators, and television -- there is relatively little competition from non-MNP affiliates, according to the respondents. If there are domestically-owned firms in the industry, the market is usually segmented, with the MNP affiliated firms selling the more expensive and ostensibly higher quality product.

On the other hand, in some industries -- air conditioners, pharmaceuticals, pesticides, motorcycles -- MNP affiliated and domestic producers compete in the same market. Often, the domestic firm sells products under license or other technical agreement from MNPs, but without equity participation from foreign sources.

The questions asked do not allow detailed inquiry into the extent that MNEs foster competition or monopoly or the extent to which they encourage the development of local entrepreneurship. It is certain that in some markets domestic firms compete successfully with the MNEs. Equally certain is that in some markets a few MNE affiliated firms have completely dominated the market in the past and there appears to be little change occurring now. Often these firms are carrying out locally just one phase of the competition in which the affiliated MNEs are engaged worldwide. In one or two cases, there is almost total monopoly.

When asked, several executives indicated that they doubted a domestic firm could (or would) successfully enter the market in competition with their firm. The difficulties in breaking in are considerable and the risks substantial. Technological competence of the MNE, brand name identification, distribution networks, access to finance and simply being the first in the market are among the reasons given for the advantages of the MNE affiliated firm. One executive illustrated his point by referring to the sophistication of his firm's distribution system. As he put it, a group of bright young business school graduates might think they could organize a distribution system that would successfully compete with the MNEs. But the executive doubted that they could. Intelligence and hard work would not

sufficiently compensate for accumulated experience. There was no way that they could adequately anticipate or ~~compensate for the difficulties that would arise~~

The comment on marketing network is important, but it is only one of the areas which MNEs feel contribute to their success. See Table VI-6. Generally, the respondent firms listed several reasons to explain the success of their product.

Overall, the firms consider high quality of the product and the firm's marketing network to be the most important reasons for success. This is true for each industry as well as the entire group. On the other hand, uniqueness of product and low cost are considered relatively unimportant by a large number of respondents. The motorcycle and non-electric appliance industries give importance to low cost; the food industry, to product uniqueness.

In the middle range of importance is advertising and product brand name, two closely related factors. The soap and detergent industry places considerable importance on advertising, and the motorcycle and food industries on brand name. The other industries consider brand name important, but not so much as the two mentioned.

Finally, a few firms mentioned reasons other than those listed in the questionnaire as important factors: credit availability, centers for servicing product performance, aesthetic superiority, and proper market segmentation. Only one firm listed a specific technical consideration — an energy economizing motor.

Table VI-6

Importance of Factors Affecting Success of MNE-Affiliated Firm's
Products in the Philippines

	Number of Firms					
	No Importance 0	Moderate Importance			Extreme Importance	
		1	2	3	4	5
a. Low cost	16	6	9	11	10	10
b. High quality (or "value for money")	1	1	2	4	18	36
c. Advertising	11	2	5	20	12	12
d. Marketing network	3	3	1	11	22	22
e. Uniqueness of product	17	3	15	13	6	8
f. Product's brand name	4	6	3	16	17	16

^aTwenty--eight firms replied with 62 responses.

VII. Exports, Imports, and Local Production

Nineteen firms gave sufficient financial information to break down costs into four categories: (1) those incurred within the firm, (2) ~~those occurring~~ from purchase of inputs domestically, (3) imports, and pre-tax profits. Six other firms gave information on the division between locally incurred costs and those due to imports. In Table VII-1, the average of costs as a proportion of total revenue is given.

The data should be interpreted with caution. First, it is only one year's information (1979). Second, there is considerable variation in firm figures, as can be seen from the standard deviations listed in Table VI-1. Part of this is the result of industry variations, although there are considerable inter-industry differences also. The inter-industry variations can be best seen by comparing all domestic costs (within firm, purchased and pre-tax profits) with imports. This is done in Table VII-2 for all industries in our study except paper.

Third, domestically purchased inputs include electricity and other power costs, as well as material costs. It would be preferable to compare the latter with import costs; however, many firms did not provide the needed data. In some cases where information is available, power costs are a significant portion of those costs domestically incurred. The figures in parts A and B of Table VII-1 must be read with this in mind.

Table VII-1

Distribution of Firm Costs

A. Average of Nineteen Firms for Which Financial Information Was Provided

	<u>Cost as a Proportion of Total Revenue (%)</u>	
	<u>Average</u>	<u>Standard Deviation</u>
Cost incurred within the firm	25.04	9.03
Domestically purchased inputs	29.42	16.39
Imports	35.07	18.09
Pre-tax profits	10.47	8.46

B. Average of Three Firms that Provided Percentage Estimates of Cost

	<u>Average (%)</u>
Costs incurred within the firm	18-23
Domestically purchased inputs	18-20
Imports	58-62

C. Average of Three Firms that Provided Percentage Estimates of Cost of Local Acquired and Imported Material Inputs

	<u>Average (%)</u>
Domestically incurred material costs	48-52
Imported material cost	48-52

Table VII-2

Average Domestic and Import Costs by Industry

Industry	Domestic Costs (%)	Imports (%)
Food	79	21
Soap and detergent	84	16
Pharmaceuticals	74	26
Chemicals	52	48
Motorcycles	36	64
Television	68	32
Other electrical appliances	66	34

^aAverage of 19 firms.

There has been much discussion of the import dependent character of import-substitution industrialization in the Philippines. Although data presented is only for one year, the validity of the criticism of import-substitution is obvious. On the average, thirty-five percent of the respondent firms' revenues from the sales of the goods that they are manufacturing (and 40 percent of the cost of production) can be assigned to import expenses. In addition, I was told by several executives that their domestically purchased material inputs are themselves heavily import dependent.

In addition, when asked what type of material inputs are purchased locally, packaging is among the most important. For some industries, it is the only significant material sourced domestically.

To obtain a more dynamic picture, we asked questions about the reasons for importing and the extent of local sourcing. I will take up the latter first. Inasmuch as a major component of industrialization is backward integration within the manufacturing sector, I asked the respondents to estimate what proportion of the intermediate inputs sourced locally is purchased on the open market and what proportion is obtained through contract arrangements. Twenty firms responded. Although most firms buy at least some of their local inputs on the open market, a large proportion is

purchased through a contract arrangement: on the average, 55 percent for the latter, 44 percent for the former, and one percent for others. There are some industry variations with the detergent, chemical, food, and other electrical appliance industries tending to purchase more through contract.

One avenue of disseminating technology is for a more technologically advanced firm to assist smaller or less technologically advanced firms. We asked the cooperating firms in our study whether they give assistance in one form or another to firms from whom they made purchases: production, manpower training, management, marketing, and finance. Of the 20 responding, only 7 said they had assisted other firms. Most of the assistance is in actual production, no doubt to achieve and maintain acceptable quality. However, there is some assistance with finance, manpower training, and management.

These seven firms were asked how many firms they had assisted in 1979 and over the last five years. See Table VII-3. There is considerable variation, with only a few MNE affiliated companies contributing to a significant number of suppliers.

The extent of such activity is no doubt associated with the degree of manufacturing in which the MNE affiliated firm is engaged as well as with the amount of vertical integration.

Several of those interviewed indicated that their products would have some additional local content in the future, largely in response to government pressure. The additional parts manufactured locally could be produced within the firm or through subcontractors. From an individual firm's best interest, there are, no doubt, arguments on both sides. For the technological and industrial development of the country, however, subcontracting, particularly when accompanied by assistance that differed the technological capabilities of the MNF affiliated firm, would be preferable.

Table VII-3

Number of Local Suppliers
Assisted by MNF-Affiliated Firms

Period of Time	Number of Suppliers Assisted						
	Firm 1	Firm 2	Firm 3	Firm 4	Firm 5	Firm 6	Firm 7
1979	1	2	5	20	22	50	70
1974-78	4	*	10	100	*	75	80

* No answer.

Firms were asked how much the local content of their firm has changed over the past 10 years. Twenty-one firms supplied usable information, 10 of which indicated that there had been no change, and one of which said that local content had decreased. See Table VII-4. When asked whether government policies had had an impact, 14 firms said yes; 6, no. In conversation, several said that local content would increase in the future in response to government policies: local content requirements, tariff and duties, and taxes.

The inter-industry linkages between one firm and the rest of the economy can be forward as well as backward. Only 6 of 22 responding firms said that either the products that they produced or the waste materials from the production process are used as inputs by other firms in the Philippines. As a proportion of sales, these sales are quite small for 2 firms, around 5% for one, more than 30% for another and almost the total sales of still another. These firms are concentrated in the soap and detergent pharmaceutical, and chemical industries.

Firms were also asked if they expect the ratio of imported to locally acquired intermediate inputs in their production process to change significantly in the next 5 years: ten firms responded yes; 14, no. Those responding yes are in the motorcycle, television, and other electrical appliance industries.

Table VII-3

Number of Local Suppliers
Assisted by MNF-Affiliated Firms

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	Firm 1	Firm 2	Firm 3	Firm 4	Firm 5	Firm 6	Firm 7
1979	1	2	5	20	22	50	70
1974-78	4	*	10	100	*	75	80

*No answer.

Table VII-4

Changes in Purchases of Locally Produced Goods
Over the Past Ten Years as a Proportion of Firm's Total Sales^a

Change	Number of Firms
No significant change	10
Down from 35% to 25% of total inputs	1
10% increase	1
30% increase (5 years)	1
40%-50% increase	1
6% increase	1
3% increase	1
from 45% to 60% of total inputs	1
from 36% to 38% of total inputs (4 years)	1
from 40% to 60% of total inputs (5 years)	1
from 5% to 30% of total inputs	1
from 10% to 49% of total inputs	1

^aTwenty-one firms responded.

Looking at the question from a different perspective, we asked from where the firm's imports come and why they are not sourced locally. A sizable number of firms source primarily from the affiliated MNE or one of its subsidiaries. See Table VII-5. Of the 23 firms responding, about one-fourth obtain at least 75% of their imports from their affiliated MNE or the latter's other subsidiaries and affiliates. Sixty percent obtain at least half of their materials from these sources. The rest also obtain their imports primarily from industrialized countries. Only small proportions of raw materials and intermediate inputs are sourced from third world countries. In discussions, it was obvious that in many cases there is no question as to where the local firm is to purchase its inputs. However, in a few instances the executives made the point that if the landed price of an input from their affiliated MNE is in excess of the cost from other sources by some predetermined figure, they are free to source elsewhere.

Why do the firms not purchase more inputs locally? The overwhelmingly most important reason given -- product not available locally -- unfortunately begs the question, or at least revolves into a circular proposition. See Table VII-6. From discussions with managers who are feeling the pressure from the government to increase local content, it seems that in many instances the input becomes available domestically when the demand emerges.

Table VII-5

Primary Source of Imported Materials

Source	Number of Firms
1. Affiliated MNF	
a. 75-100 percent of imports	3
b. 50-74 percent of imports	7
2. Affiliated MNF and its other subsidiaries or affiliates	
a. 75-100 percent of imports	3
b. 50-74 percent of imports	1
3. Industrialized countries (other than from affiliated MNF or its subsidiaries)	
a. 75-100 percent of imports	6
b. 50-74 percent of imports (with the remainder from the affiliated MNF)	2
4. Others	1
Total	23

Table VII-6

Reasons for Using Imported Inputs^a

	Number of Firms						
	No Importance		Moderate Importance			Extreme Importance	
	0	1	2	3	4	5	
a. Product not available locally.	0	0	0	0	1		24
b. Local product too expensive.	12	0	2	5	3		3
c. Local product of insufficient quality.	3	2	3	3	8		6
d. Product produced by affiliated MNF or one of its subsidiaries	12	4	2	5	1		1

^aTwenty-five firms responded to the question.

When I asked why the product is not manufactured locally, "economies of scale" was the reason most often given. The local market is not large enough to support economically sized production units. The reason, although undoubtedly correct in many cases, is not complete. For example, costs may be higher with smaller sized units, but by how much? One pharmaceutical firm manager commented that some intermediate inputs could be produced locally with only a moderate increase in cost. If there is sufficient tariff protection and, importantly, if the competing firms in the industry pool their demands and buy locally, a plant would be viable.

In addition, if the local market does not exhaust the potential source of demand, exports are possible. Why are certain intermediate goods not manufactured locally and exported? Transportation and other costs are surely part of the reason, but so are factors related to the level of development. And there are cases where, in the early stages of manufacturing, the product is exported (e.g., Philippine Sintering Corp. in Mindanao).

The second most important reason given for using imported inputs is the insufficient quality of local inputs. Interestingly, only a few firms claim that an input is imported because it is produced by the firm's MNC affiliate or one of its subsidiaries. This appears to be in opposition to the above data and discussion, as well as the general sense of

the situation I gathered from interviews. Perhaps it is that other factors are more important. If quality improved and local production occurred, perhaps the conflict between buying locally or from the affiliated MNF might become more important in the minds of the managers of MNF affiliated firms.

Turning to exports, 13 of the 28 firms in our study replied that they are not exporting; two others did not answer. Another firm began exporting only in 1980. The remaining 12 firms said that they were exporting prior to 1980. Only 8 of these export at least 4% of their sales. This group averages exporting 23 percent of their sales; however, this number is dominated by two firms which export over 60 percent of their output (one of which does not export directly, but produces intermediate goods used in the manufacture of exports). Only three of the 12 actually exported more in 1979 than they imported.

When asked if they expected their firm to begin exporting or expand the percent of their output exported, 8 said yes, while 9 said no. The others did not respond. The few yeses that gave reasons noted government incentives and pressures and the development of new product lines. One manager pointed out that the products his firm manufactures are also produced in almost every country: thus there is little chance of export. However, he continued, in response to the government

policy of encouraging exports, they are looking for a new product line that is exportable.

Those firms that are exporting (including the one that began in 1980) were asked where they are selling their products. Eleven firms replied. From other sources, the major export market of one of the two not replying is known. The exporters are in the soap and detergent, pharmaceutical, chemical, food, and other electrical appliance industries. The bulk of exports from firms in the detergent industry go to industrialized countries of Europe and America, as do that of firms in the other electrical appliance industry. The pharmaceutical industry's exports (although not a large part of sales) go to Asia. The other industries split their sales between the industrialized West and Asia. Interestingly, they tend to specialize in one of these markets or the other. Firms sell roughly two-thirds of their exports in the industrialized countries and one-third in Asia, but they were the exceptions.

Firms were asked why they do not export more. Twenty-two firms replied. Three factors appear to be relatively important: high cost of local production, to avoid encroaching on market of affiliate MNC or its subsidiaries, and tariffs or other trade barriers in importing countries. See Table VII-7. Transportation cost is of moderate importance. On the other hand, license restrictions, limits of product design, and insufficient marketing network are not important.

Table VII-7

Factors Limiting Exports from the Philippines^a

	Number of Firms				
	No Importance 0	1	Moderate Importance 2 3	Extreme Importance 4 5	
a. High cost of local production.	4	1	2 4	5	6
b. Transportation costs.	4	0	3 7	5	3
c. Avoid encroaching on market of affiliate MNE or of its subsidiaries.	8	1	0 3	2	8
d. Tariffs or other trade restrictions in importing country.	6	1	2 3	4	6

^aTwenty-two firms replied.

There are significant industry variations however. Firms in the television and other electrical appliance industries emphasize more the high cost of production. The motorcycle, pharmaceutical, and chemical industry firms, on the other hand, lay more stress on avoiding encroaching on the market of the affiliated MNF. Tariffs are mentioned as being important in every industry except chemicals and paper.

Lastly, the impact of government policy was examined. On the import side, 15 firms said that government policy has an impact on their imports; 10 said that it does not. Most of the former indicate that imports tend to be reduced to meet BOI guidelines because of tariffs, and foreign exchange restrictions. One firm, however, mentioned that its imports went up because of reduction in the level of protection.

On the export side, 10 firms said government policy has an impact; 5 said that it does not. The major factors are: ability to obtain foreign currency and export incentives. One firm complained, however, of the lack of sufficient government assistance.

VIII. Conclusion

The survey covers a wide range of issues usually discussed under the benefit heading of the balance sheet on the desirability of foreign investment by multinational firms (MNFs). This draft is largely a summary of the results. Much of the analysis remains to be undertaken. However, a few generalizations might be ventured at this point.

The cooperating enterprises are almost all of the import substituting type, with only a few having significant exports. In addition, over time they have not expanded their horizons beyond the local market. There is some positive response to government pressure (as contrasted with incentives), but as a percent of sales, exports remain unimportant.

The choice of equipment by the majority of the local firms is heavily influenced by their affiliated MNFs. Much of the equipment is similar to what is or has been used in the MNF's home country plants, and in the majority of cases, the latter participate in (and sometimes dominate) the discussion of which technology to use in the Philippines.

Most of those interviewed emphasized, however, that control over equipment is not where the advantage of the multinational firm over domestic producers lies. Rather it is in the knowledge of the production process and advances in production and product technology.

✓ Training of management personnel is often cited as one of the most important contributions of MNFs to the Philippine economy. My survey tends to confirm this point of view. Surely there is a much greater emphasis on training management and professional staff in full-time training programs than on training production workers.

On-the-job training programs primarily service production workers. Most, however, are of relatively short duration. One of the reasons may be that there generally exist pools of skilled workers in the areas needed. Training at the work place consists of increasing worker proficiency and adapting skills to the needs of the corporation.

The MNE affiliated companies in my survey produced disproportionately for the Metro Manila Market and for the affluent. Only one or two industries sold consumer products to the various income groups in rough proportion to their size in the population.

✓ Finally, the firms are largely engaged in the later stages of manufacturing--assembling, formulating, packaging, etc. They are dependent on imports for their intermediate inputs. Local content is increasing, but it is still limited to the simpler parts. Although a few of the firms are assisting subcontractors, the majority are not. If the local content of goods produced by MNE affiliated companies is to increase substantially, assistance to suppliers must become more widespread.

It is widely acknowledged that MNFs can contribute to the economic development of third world countries; the debate is over the nature and extent of the contribution. My results point to some areas of contribution by MNFs in the Philippines. However, that contribution may not be as widespread as is generally thought. In addition, the diffusion of benefits from the MNF affiliated firms to domestic enterprises is limited.

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A P P E N D I X

COOPERATING FIRMS BY INDUSTRY

A. Food Industry

1. General Foods, Philippines
2. Philippine Packing Corporation
3. Standard Brands of the Philippines
4. Wander (Philippines), Inc.

B. Soap and Detergent Industry

1. Colgate-Palmolive Philippines, Inc.
2. Philippine Retining Company
3. Procter & Gamble, Philippine Manufacturing Company

C. Pharmaceutical Industry

1. Hoechst Philippines, Inc.
2. Interphil, Inc.
3. Johnson & Johnson, (Philippines), Inc.
4. Wyeth-Suaco Laboratories, Inc.

D. Chemical Industry

1. Borden International Philippines, Inc.
2. Cyanamid Philippines, Inc.
3. Muller & Phipps Manufacturing Corp.
4. Shell Chemical Company (Philippines), Inc.
5. Union Carbide Philippines, Inc.

E. Motorcycle Industry

1. Antonio Suzuki Corp.
2. Delsa Industrial Corporation
3. Mariwasa-Honda, Inc.

F. Television Industry

1. Hitachi Union, Inc.
2. Radiola-Toshiba Philippines, Inc.
3. Radiowealth, Inc.
4. Sanyo (Philippines), Inc.

G. Other Electrical Appliance and Light Industry

1. Daikin Philippines, Inc.
2. Philippine Appliance Corporation
3. Philippine Electrical Manufacturing Corp.
4. Singer Industries Philippines, Inc.

H. Paper Industry

1. Kimberly-Clark Philippines, Inc.
2. Scott Paper Philippines Inc.