

Comparison of Diversification Strategies by Four Groups of International Companies

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This paper analyzed the historic evolution and the current posture of diversification strategies by four groups of international firms: U.S.-based multinational corporations, European trading houses, Japanese sogo-shosha, and Korean general trading companies. These firms' strategies were compared on three dimensions: product, geographic and functional diversification. Quantitative measurement of the current posture confirmed the observation of the historic evolution that the sogo-shosha were the most diversified in all three dimensions, while each of the other three groups was diversified in two dimensions; U.S.-based multinationals by geographic area and function; European trading houses by product and function; and Korean general trading companies by product and geographic area.

I. Diversification Strategies Defined

To identify differences in the diversification strategies of European, Japanese and Korean trading companies and U.S.-based multinationals, it is first necessary to define the concept of diversification itself. In addition, methods available for objective measurement of diversification must be determined.

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Kinds of Diversification

For most business concerns, diversification remains a major strategy for growth. Many researchers have attempted to develop a general theory of diversification, but each has defined diversification according to his or her research goals and methods.

These definitions can be grouped in three paradigms according to the scope of diversification considered. In the first, diversification is treated as an outcome of simultaneous expansion in products and markets; this view is shared by Ansoff,⁽¹⁾ Kinukasa⁽²⁾ and Keegan.⁽³⁾ In the second paradigm, diversification is classified as vertical, horizontal, and conglomerate, according to the nature of products being diversified; this view is shared by Stopford and Wells,⁽⁴⁾ Luck and Prell,⁽⁵⁾ and Rumelt.⁽⁶⁾ The third view includes functions as well as products and markets; this concept is espoused by Park,⁽⁷⁾ Akino,⁽⁸⁾ and Cho.⁽⁹⁾ Exhibit 1 compares the three Paradigms schematically.

The first paradigm which views diversification as an outcome of interaction between a firm's production capabilities and market conditions, is inadequate as a definition for the following reasons: (1) it does not readily allow systematic analysis of the many directions and forms of diversification available as a strategy for growth; (2) in practice, managers recognize the difference between

(1) H. Igor Ansoff, *Corporate Strategy, Business Policy for Growth and Expansion*. McGraw-Hill Book Company, New York, 1965, p. 128.

(2) Yo'oske Kinukasa, *Internationalization Strategy of Japanese Enterprise*, Nihon Keizai Shimp-
osha, Tokyo, 1979, pp. 46, 49.

(3) Warren J. Keegan, "Strategic Marketing International Diversification Versus National Concentration," *Columbia Journal of World Business*, Winter 1977.

(4) John A. Stopford and Louis T. Welles, Jr., *Managing the Multinational Enterprise*, Basic Books, Inc., N.Y., 1972, pp. 36-38.

(5) David J. Luck and Arthur E. Prell, *Market Strategy*, Meredith Corp., N.Y., 1998, pp. 41-61, 175-183.

(6) Richard P. Rumelt, *Strategy, Structure, and Economic Performance*. Division of Research, Harvard University Graduate School of Business Administration, Boston, 1974, pp. 9-31.

(7) Je-Ka Park, *Bookhakeui* (translated by Ik-Sung Lee), Eulyoo Moonhwasa, Seoul, 1974.

(8) Norihiro Akino, "Quantitative Analysis of Trading Companies' Diversification Activities, (I) and (II)," *Kannan Keiei*, 1978 and 1979.

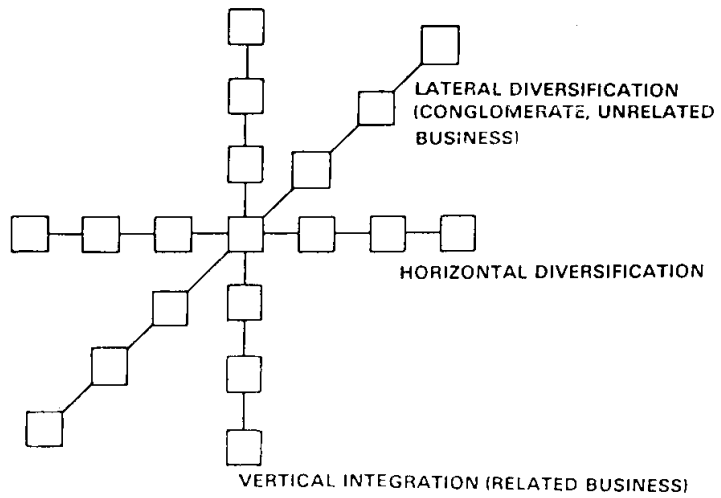
(9) Cho, *General Trading Company: Concept and Strategy*, Bupmoonsa, Seoul, 1983, op. cit., p. 84.

Exhibit 1: Three Paradigms for Defining Diversification

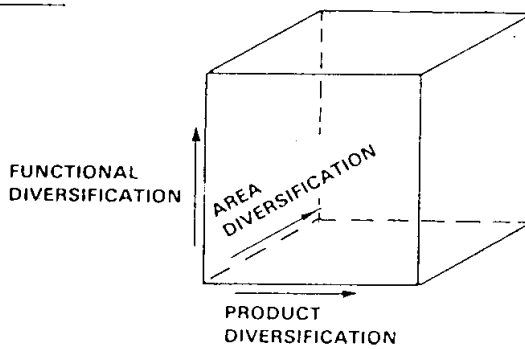
PARADIGM 1

		PRODUCT	
		EXISTING	NEW
MARKET	EXISTING	MARKET PENETRATION	PRODUCT DEVELOPMENT
	NEW	MARKET EXPANSION	DIVERSIFICATION

PARADIGM 2



PARADIGM 3



geographic and product diversification, and pursue them independently; and (3) it does not provide managers with alternatives for overall growth or organization strategies.

The second paradigm is appropriate for manufacturing firms, engaged primarily in production and marketing. On the other hand, it largely ignores the strategic needs of business firms operating in the service sector.

For the purposes of this study which compares diversification strategies of international firms including the general trading company (GTC) and the multinational corporation (MNC), the third model is most appropriate. For GTCs, particularly, functional diversification has become an increasingly important element of the overall strategy. The resilience of a GTC depends, for example, on its information gathering capabilities—its ability to locate and match suppliers and buyers in the elusive environment of international business—and on its ability to reduce its exchange-risk exposure by balancing exports and imports.

Diversification Indices

1. Product Diversification

There is a proliferation of literature dealing with corporate diversification in the field of industrial organization. A typical methodology used in this literature is to measure the total diversity of a firm's operations with some forms of productcount indices.⁽¹⁰⁾ Some of the frequently used indices are:

$$X_1 = n.S \quad : \text{ by Gort}^{(11)} \text{ and Stopford and Wells}^{(12)}$$

(10) According to Palepu, the methodology is a fundamental criterion in distinguishing the industrial organization literature from the strategic management literature: the former employs simple productcount indices that measure the total diversity of a firm's operations and the latter uses a categorial measure based on the classification scheme originally proposed by Rumelt (op.cit.). See for reference, Krishna Palepu, "Diversification Strategy, Profit Performance and the Entropy Measure." *Strategic Management Journal*, Vol. 6, Number 3, July-September 1985, p 239.

(11) Michatel Gort, *Diversification and Integration in American Industry*, Princeton University Press, Princeton, N. J., 1962, pp.74-77. He used a simple count of industries as n.

(12) Stopford and Wells, op. cit., pp.185-187. They used the number of SIC two-digit industries as n.

$$X2 = 2 \sum_{i=1}^n (i, Pi) - 1: \text{ by Utton}^{(13)}$$

$$X3 = 1 / \sum_{i=1}^n (Pi^2) \quad : \text{ the Herfindahl Index}^{(14)}$$

$$X4 = 1 - \sum_{i=1}^n (Pi^2) \quad : \text{ by Berry}^{(15)} \text{ and Cho}^{(16)}$$

where

n = the number of industries in which a firm operates,

S = the complement of the specialization ratio, i.e., the ratio of the total sales generated by products outside the primary product category of a firm,

P_i = the ratio of total sales generated in the i th industry, in rank order such that $P_i \geq P_{i+1}$.

Each of these formulas has its own characteristics, and therefore should be chosen properly according to the nature and the need of a research. For example, X_2 is more sensitive to lower P_i 's than X_3 because the P_i 's are squared. X_4 differs from either X_2 or X_3 in the sense that the former measures the degree of diversity of a firm while the latter approximate the number of areas in which a firm is participating in. The choice of an index in this study, however, was dictated by the availability of the data. X_2 , X_3 , and X_4 require the data for P_i 's of each company in the sample, but such data could not be collected for all the companies. As a result, X_1 was chosen in this

(13) Michael A. Utton, *Diversification and Competition*, Cambridge University Press, London, 1970, pp. 104-105. In the original formulation of X_2 , Utton employed the proportion of total employment in each industry segment as the variable. Utton's formulation is useful in a comparison between manufacturing firms. It is, however, less appropriate for a comparison between a manufacturer and a trading company, where large differences in labor requirement exist.

(14) Utton, op. cit., p. 16.

(15) Charles H. Berry, *Corporate Growth and Diversification*, Princeton University Press, Princeton, N.J., 1975, p. 62.

(16) Dong-Sung Cho and Sung-Tae Hong, "The Effects of the Government's Policy on Korean General Trading Companies' Performance: A Quantitative Analysis," *The Korean Business Journal*, Institute of Management Research, Seoul National University, June 1981, pp. 80-81. The purpose of the original study was to determine the product diversity of Korean GTCs' exports. Therefore, the variable P_i was defined as the proportion of total exports generated by each product group.

study to represent the product diversification index (PDI).

$$PDI = X_1 = n.S$$

Here n is defined as the number of SIC two-digit industries in which a firm operates.⁽¹⁷⁾ The critical value of PDI is 1. Product diversity is defined as low when PDI lies between 0 and 1 ($0 < PDI < 1$). Similarly, product diversity is defined as high when PDI is greater than 1 ($PDI > 1$). For example, if a firm operates in four industries and the ratio of the sales from its primary industry is less than 75 percent, the firm's PDI is greater than 1, indicating high product diversity.

2. Geographic Diversification

As in product diversification, a number of indices can be used to measure geographic diversity of a firm. For example:

Y_1 = the number of countries in which the firm is active.

$$Y_2 = 2 \sum_{j=1}^n (j, A_j) - 1 : \text{modification of } X_2$$

$$Y_3 = 1 / \sum_{j=1}^n (A_j^2) : \text{modification of } X_3$$

$$Y_4 = 1 - \sum_{j=1}^n (A_j^2) : \text{modification of } X_4$$

where,

$n=7$ (the number of regions: North America, Latin and South America, Western Europe, Africa, Middle East, South and East Asia and Oceania, and Communist countries),

A_j = proportion of the number of branch offices in j th region.

The data for A_j had been collected from all of the sample companies, thus all of the four indices could be used to measure the geographic diversity of the firms. Among them, however, Y_2 was chosen because of the following properties: the value of Y_2 itself can be interpreted as the number of regions in which a firm operates in equal weights. For an example, if a firm has 20

(17) Standard industry classification differs from country to country. Therefore, a reclassification of industry data was necessary for international comparisons.

overseas offices, say 5 in each of North America, Western Europe, Asia, and Africa, its ADI is 4. For another example, if a firm has 20 offices, but 14, 3, 2, and 1 in each of the four regions, its ADI is 2, indicating much less geographic diversity than the firm in the previous example.

$$ADI = Y_2 = 2 \sum_{j=1}^n (j, A_j) - 1$$

3. Functional Diversification

International business concerns are so diverse that hasty generalizations about their functions are dangerous, and in some cases impossible. On the basis of their major activity and competitive market strength, firms can be labeled functionally as manufacturers or trading companies. Nevertheless most manufacturing firms, and especially MNCs, are involved directly in distribution and other ancillary marketing services. Conversely, many Japanese and Korean GTCs and European trading houses are not without their own manufacturing capabilities.⁽¹⁸⁾ Therefore, it is necessary to delineate the limits of a firm's functional activities before functional diversification can be gauged. In this study, a firm's functional activities are classified by its main activities, such as production, marketing, and other activities operated independently or in relation to its main activities.

The degree of a firm's functional diversity can also be measured in various ways, similarly with X_i 's or Y_i 's. Again, the difficulty in obtaining the necessary data compelled the choice of the following simplistic formula:

FDI = the number of functional activities conducted by a firm.

II. Evolution of International Firms' Diversification Strategies

Historic Review

Historically, the domestic business activities of various countries have been

(18) United Africa Company serves as a good example. UAC complements its marketing of Caterpillar trucks and construction machineries with support operations in assembly, after-service and production of spare parts. In addition, UAC directly manufactures and installs medical and office equipments.

internationalized through two vehicles: GTC and MNC. Of the four groups considered here, the European, Japanese and Korean firms fall into the first category, and the U.S.-based multinationals, the second.

The GTC is a product of government policy. It develops where a government perceives a need to expand its economic power overseas. Therefore, the strategies of the GTC are influenced in large part by the expansionist policy of its government. The birth and growth of the GTCs in Europe, Japan and Korea respectively reinforce this point. Most of Europe's trading houses born in the seventeenth and the eighteenth centuries were products of the mercantilist policy adopted by their home governments during that era.

For example, Oost-Indische Compagnie of the Netherlands, and the British East India Company, both established circa 1602, were chartered by their respective governments to trade with colonial markets in India and Southeast Asia. To exploit the colonial markets fully, these trading houses broadened their activities in all product categories, including the import of raw materials to, and the export of final products from, their home countries. To increase value-added of their operations, they diversified functional activities from simplistic trading to a more comprehensive and systematic extraction of the wealth and resources of the colonies through estate-farming, mining and usury.⁽¹⁹⁾

When these trading houses moved eastward to the Far East and eventually to Japan in the mid nineteenth century, the newly restored Meiji government since 1868 responded by developing its own trading companies to protect the domestic market in various product categories. When the Meiji government adopted an imperial policy in the late nineteenth century, the Japanese trading companies also expanded their market territories by entering Korea, Manchuria, Taiwan, and Southeast Asian countries.⁽²⁰⁾

Korean general trading companies were instituted in 1975 by the government

(19) Ramkrishna Mukherjee, *The Rise and Fall of the East India Company*, A Sociological Approach, VEB Deutscher Verlag der Wissenschaften, Berlin, 1958, p. 59.

(20) Dong-Sung Cho, "The Anatomy of the Korean General Trading Company," *Journal of Business Research*, Summer 1984, pp. 242-243.

as a means for diversifying Korea's export products and markets in the wake of increasing protectionism from advanced countries against a number of major Korean exports such as textiles, footwear, and steel.⁽²¹⁾

Even the government of the United States, which is generally considered to favor free competition and minimum government intervention, has encouraged the establishment of trading companies to help domestic manufacturers export their products to various countries overseas which otherwise would not be reachable by the manufacturers themselves.⁽²²⁾

In essence, the *raison d'être* of the GTC is its ability to provide domestic manufacturers with expertise in international business activities by handling a large number of products, penetrating various geographic areas, or performing multiple functions. This diversification in products, geographic area and/or function allows the GTC to become a self-sustaining entity of economic scale and scope.

The MNC, by contrast, internationalizes for its own motives (generally to promote growth) and on its own initiative. Businesses that started as single-product, single-function (mostly manufacturing) organizations in the nineteenth century became multifunctional when they attained the scale required to move forward into marketing and distribution, and then backward into raw and semifinished material sourcing and research and development. In the process of moving forward, they invested abroad, first in marketing and then in production, and became multinational.⁽²³⁾

Diversification Strategies Observed

As a result of their different origins and patterns of growth, the GTCs and

(21) Dong-Sung Cho, *Korea's General Trading Company: System and Management*, Bupmoonsa, Seoul, 1983, p. 11.

(22) Yoshi, Tsurumi, *Multinational Management*, Second Edition, Ballinger Publishing Company, Cambridge, Massachusetts, 1984, pp. 102-107.

(23) Alfreo D. Chandler, Jr., "The Evolution of Modern Global Competition," Harvard Business School's 75th Anniversary Colloquium on Competition in Global Industries, Division of Research, Harvard Business School, 1984, p. 4.

MNCs have pursued different diversification strategies, achieving distinct patterns of diversity respectively.

Through various requirements, the Korean government mandated a considerable product and geographic diversity for its GTCs.⁽²⁴⁾ Functional diversification other than export activities, however, has not been emphasized. As a result, Korean GTCs show only a limited functional diversification into importation or third-country trade. Similarly, finance, information services and transportation play relatively minor roles in their modus operandi.

European trading houses originally focused their operations on regions in which their governments enjoyed significant political influence. Therefore, geographic coverage was generally limited to colonies. Efforts to maximize economic exploitation of the colonies, however, served to promote both product and functional diversification. European trading houses engaged fully in two-way trade, importing raw materials and products from the colonies while exporting manufactured goods in return. Profits were increased further by controlling every stage of the trade, from extraction of natural resources and estate-farming to collection, transportation and sales.

Because each industry is different, MNCs exhibit a wide variety of diversification modes. Typical U.S.-based MNCs, however, specialize in a limited line of products based on extensive research and development, the traditional source of U.S. comparative advantage. In geographic area and function, on the other hand, the MNCs are widely diversified. For example, General Motors (GMC) is engaged almost exclusively in the production and sale of passenger cars and other motor vehicles, but has a worldwide marketing network in over 30 countries. Furthermore, in each market, GMC conducts extensive functional activities, such as production of parts, assembly, after-service and consumer financing.

Unlike the other three kinds of firms under consideration, Japanese *sogo-shosha* are diversified in all three dimensions. Their earliest activities in the

(24) Cho, *Korea's General Trading Company: System and Management*, op. cit., pp. 20-24.

Exhibit 2. Diversification Strategy of International Firms Observed

Diversification	Korean GTCs	European Trading Houses	U.S.-Based MNCs	Japanese Sogo-shosha
Product	Yes	Yes	No	Yes
Area	Yes	No	Yes	Yes
Function	No	Yes	Yes	Yes

1870s and 1880s, were designed to form a common front against European trading houses penetrating the Japanese market. In the late nineteenth and the early twentieth centuries, they expanded to various Japanese colonies. Compared with typical European trading houses, which also depended on the colonies of their home countries but generally specialized in specific areas, Japanese trading companies were fewer in number and larger in size, thus able to move into multiple markets simultaneously. In the 1960s and 1970s, many Japanese manufacturing companies attained sufficient scale to go abroad themselves. Threatened with this development, Japanese trading companies developed various functional activities such as raw material sourcing, financing, transportation and information gathering, to enable them to keep the smaller sized manufacturers under control.⁽²⁶⁾

The observations on the evolution of diversification strategies by the four kinds of international business firms are summarized in Exhibit 2.

III. Current Posture of International Firms' Diversification Strategies

To measure the degree of diversification of the four groups of international firms with the indices defined above, we must select the sample companies representative of U.S.-based MNCs, European trading houses, Japanese sogo-shosha and Korean GTCs.

(25) Until the 1950s, Japanese trading companies exhibited a diversification mode similar to the present-day GTCs in Korea. Operations of trading companies such as Mitsui and Mitsubishi were well diversified by product and by geographic area, but functional activities were very much limited to import of raw materials and export of manufactured goods.

(26) Alexander K. Young, *The Sogo-Shosha: Japan's Multinational Trading Companies*, Westview Press, Boulder, Colorado, 1976, pp.11-13.

Selection of Sample Firms

The choice of samples for Japanese and Korean GTCs was simple. The following nine Japanese trading companies are commonly referred to as sogo-shosha: Mitsubishi Shoji, Mitsui Bussan, C. Itoh, Marubeni, Sumitomo Shoji, Nissho-Iwai, Toyo Menka, Kanematsu-Gosho, Nichimen in the order of their turnovers in 1983.⁽²⁷⁾ Also as of the end of 1983, nine private companies in Korea received the GTC designation from the Korean government. They are: Daewoo Corporation, Samsung co, Ltd., Hyundai Corporation, Sunkyong Ltd., Lucky-Goldstar International Corporation⁽²⁸⁾, Kukje Corporation, Ssangyong Corporation, Hyosung Corporation, and Kumho & Co. in the order of their turnover in 1983. In 1984, the government excluded Kumho because of its failure to meet the mandated requisites consecutively in 1981, 1982 and 1983.⁽²⁹⁾ Thus, all of the nine Japanese and Korean GTCs were examined in this study.

On the other hand, defining European trading houses as of today was difficult, and the necessary data were not readily available. In this study, we are interested in the trading companies with their roots stemming from the imperial days of Europe. However, most of the traditional trading houses which had prospered in the past either went into oblivion, or were merged into big conglomerates or holding companies, leaving little sign of their existence.⁽³⁰⁾ Dun & Bradstreet International annually publishes the top 2,500 exporters in Eur-

(27) This listing is not unanimous. Some sources consider only the largest six as full-fledged sogo-shosha, while the Sogo Shosha Committee of the Japan Trade Council, Inc. consists of 16 companies which include the above nine plus Chori, Itoman, Kawasho, Kinsho-Mataichi, Nozaki, Okura, and Toshoku.

(28) The name was changed from Bando Sangsa Co. to Lucky-Goldstar International Corporation as of January, 1984.

(29) As of the end of 1983, there were ten GTCs in Korea. One of them, Koryo Trading Co., was under the control of the Korea Trade Promotion Corporation (KOTRA), and responsible for fostering export activities of small and medium manufacturers in Korea. Koryo Trading was, therefore, excluded from our analysis.

(30) East India Companies in various countries have all disappeared, while many colony-based trading companies are now part of big conglomerates. For example, Dodwell Company is now a wholly-owned subsidiary of the Inchcape, and the United Africa Company is a division of Unilever.

ope, but the listing is arbitrary at best because the list does not even include the export figures of the companies listed.⁽³¹⁾ Therefore, the choice of the European trading companies was made on the basis of data availability. The results were 2 English companies (Inchcape, the Dunlop Holding ple), 1 Hong Kong-based English company (Jardine Matheson), 2 Dutch companies (Internatio-Mueller NV, Ceteco), 1 Danish company (The East-Asiatic Co.) and 3 French companies (OPTORG, SCOA, and CFAO).

Defining the U.S. exporters was an even more difficult task, because there can be as many definitions of the U.S. exporting firms as there are researchers and authorities in the field.⁽³²⁾ Some argue export management companies as the most authentic form of exporting companies, but these companies are intermediaries rather than fully-blown trading companies conducting trading businesses under their names. Some others consider large-sized commodity and raw material dealers such as Cargill and Philipp Brothers as the most advanced exporters. Since these companies are either privately held or part of a holding company, access to the data was very difficult. Probably the most appropriate set of companies would be the export trading companies based on the Export Trading Company Act of 1982. As of 1985, however, they were too premature to be representative of the U.S. exporters in equal substance with the European, the Japanese, and the Korean trading companies chosen above. Given the circumstances, I selected the nine largest U.S. exporters from the list of Fortune's "50 Leading Exporters" as of 1983.⁽³³⁾ They were General Motors, Ford Motor, General Electric, United Technologies, Du Pont, IBM, Chrysler, Caterpillar Tractor, and Eastman Kodak in the order of export amounts. Even though Boeing and McDonell Douglas were orginally among the top 9 exporters, they had to be excluded because of the insufficiency of the data. Ins-

(31) Refer to *Europe's 10,000 Largest Companies*, Dun & Bradstreet International, London, 1983.

(32) According to the Office of Export Company Affairs, U.S. Department of Commerce, no attempt to define the export company has been made because of the variety of differing opinions.

(33) *Fortune*, August 6, 1984, p. 37.



tead, the 10th and 11th ranked Caterpillar Tractor and Eastman Kodak were included. This list, however, was not without flaws, as the companies chosen were also representative of the multinational corporations based in the U.S.. Therefore, I have included the leading U.S. exporters in the study as reference to the trading companies, with no intention to imply them as trading-oriented companies.

Quantitative Measurement

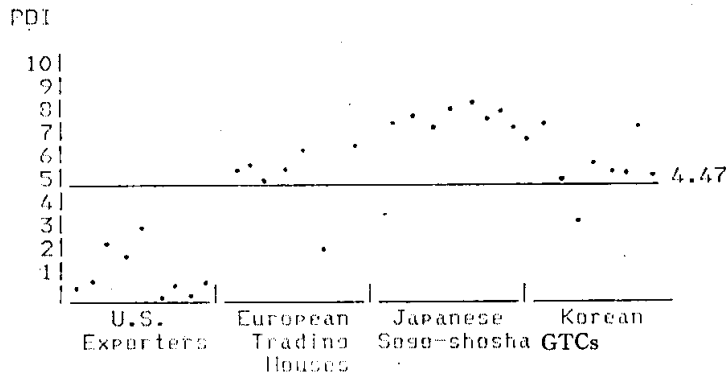
1. Product Diversification

As shown in Exhibit 3, the value of PDI for U.S. exporting companies ranged between 0.04 and 2.85. With the exception of Du Pont, all of them have values not exceeding 2.00, a fact indicating a relatively low product diversity. In comparison, PDIs for the European trading houses lie between 2.08 and

Exhibit 3: Product Diversification Index (PDI)

	PDI		PDI
U.S. Exporters	0.92	Japanese Sogo-shosha	7.21
GM	0.28	Mitsubtshi Shoji	7.19
Ford	0.45	Mitsui Bussan	7.36
GE	2.00	C. Itoh	6.72
United Technology	1.56	Marubeni	7.52
Du Pont	2.85	Sumitomo Shoji	7.78
IBM	0.04	Nissho-Iwai	7.12
Chrysler	0.32	Toyo Menka	7.46
Caterpillar Tractor	0.18	Kanematsu-Gosho	6.97
Eastman Kodak	0.60	Nichimen	6.80
European Trading Houses	5.14	Korean GTCs	5.37
CFAO	5.25	Samsung	6.94
SCOA	5.71	Daewoo	4.82
OPTORG	4.72	Hyundai	3.00
Internationio Mueller	5.60	Lucky-Gold Star	5.50
Inchcape	6.18	Ssangyong	5.30
Dunlop	2.08	Sunkyong	5.26
CETECO	N.A.	Hyosung	6.98
East-Asiatic Co.	6.42	Kukje	5.14
Jardine Matheson	N.A.		

Exhibit 4: Diagram for PDI



6.42, a fact indicating a generally higher level of diversification than that shown by U.S. exporters. All of the nine Japanese sogo-shosha demonstrate a high product diversity with PDI concentrated between 6.72 and 7.78. Korean GTCs have also achieved a relatively high product diversity, with PDI ranging between 3.00 and 6.98. As a group, Korean GTCs show greater product diversification than U.S. exporters and European trading houses, but less than their Japanese counterparts.

These figures are presented diagrammatically in Exhibit 4. The exhibit clearly shows that each of the four international business forms has achieved a distinctive level of product diversity. For example, it can be seen that U.S. exporters are far less diversified from the product standpoint than other three international business forms, while the Japanese sogo-shosha are the most diversified. These findings provide some solid diversification that we will discuss in the next section.

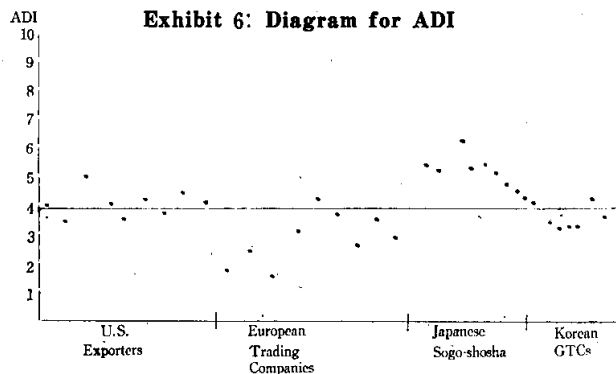
2. Area Diversification

Area diversification expressed by ADI is presented in Exhibit 5. The average value of ADI is highest for Japanese sogo-shosha, at 5.20. The relevant figure for U.S. exporters is somewhat lower at 4.11, and even lower for Korean GTCs at 3.59. The average value of ADI is lowest for the European trading houses, at 2.82. As can be seen more clearly from the diagram in Exhibit 6, Japanese sogo-shosha have achieved the most extensive area diversification

Exhibit 5: Area Diversification Index (ADI)

	ADI		ADI
U.S Exporters	4.11	Japanese Sogo-shosha	5.23
GM	4.09	Mitsubishi Shoji	5.60
Ford	3.55	Mitsui Bussan	5.44
GE	5.00	C. Itoh	6.06
United Technology	4.00	Marubeni	5.44
Du Pont	3.62	Sumitomo Shoji	5.51
IBM	4.31	Nissho-Iwai	5.43
Chrysler	3.80	Toyo Menka	4.81
Caterpillar Tractor	4.44	Kanematsu-Gosho	4.52
Eastman Kodak	4.17	Nichimen	4.24
European Trading Houses	2.82	Korean GTCs	3.59
CFAO	1.72	Samsung	4.23
SCOA	2.41	Daewoo	3.62
OPTORG	1.17	Hyundai	3.27
Internationio Mueller	3.16	Lucky-Gold Star	3.37
Inchcape	4.31	Ssangyong	3.38
Dunlop	3.84	Sunkyong	4.18
CETECO	2.42	Hyosung	3.64
East-Asiatic Co.	3.76	Kukje	3.00
Jardine Matheson	2.56		

Exhibit 6: Diagram for ADI



while the European trading houses the least, with the U.S exporters and Korean GTCs falling in-between.

3. Functional Diversification

To determine the extent of a firm's functional diversification, I primarily relied on the articles of incorporation of each firm, and considered only those

Exhibi 7: Functional Diversification Index (FDI)

	FDI		FDI
U.S. Exporters	6.44	Japanese Sogo-shosha	9.55
GM	7	Mitsubishi Shoji	11
Ford	5	Mitsui Bussan	10
GE	7	C. Itoh	10
United Technology	5	Marubeni	10
Du Pont	6	Sumitomo Shoji	9
IBM	8	Nissho-Iwai	9
Chrysler	8	Toyo Menka	9
Caterpillar Tractor	7	Kanematsu-Gosho	8
Eastman Kodak	5	Nichimen	10
European Trading Houses	8.33	Korean GTCs	4.5
CFAO	9	Samsung	4
SCOA	9	Daewoo	5
OPTORG	8	Hyundai	4
Internationio Mueller	6	Lucky-Gold Star	6
Inchcape	11	Ssangyong	2
Dunlop	5	Sunkyong	4
CETECO	8	Hyosung	5
East-Asiatic Co.	10	Kukje	6
Jardine Matheson	9		

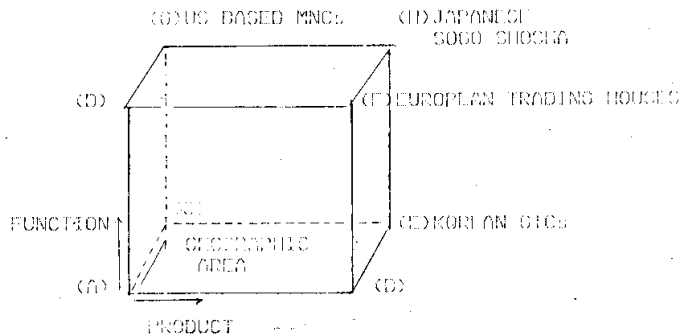
activities that were specifically mentioned. The information compiled is presented in Exhibit 7. Japanese sogo-shosha show a consistently high level of functional diversification, participating in eight to eleven activities. As a group, Korean GTCs show the most limited degree of functional diversification, with two to six. The U.S exporters and European trading houses are similar in that they fall in-between, but their mode of functional diversification is quite different. U.S. exporters are generally diversified into distribution, financing, insurance and other functions in order to support their sales efforts, while the European trading houses have achieved their functional diversification by operating independent business entities, rather than supporting functions, in the local economies.

IV. Concluding Remarks

So far, we have examined the commonalities and differences among the four different forms of international firms in terms of three kinds of diversification—by product, by geographic area and by function. The quantitative measurement lends empirical evidence to the diversification strategies of these firms observed from their historic evolution, as previously shown in Exhibit 2.

Based on these evidences, we can now construct a schematic model of the diversification strategies of the different trading companies. The result is a hexadron, as shown in Exhibit 8, whose corners show the degrees and directions of diversification. Korean GTCs are represented by point E, suggesting that they are diversified by product and area, but not by function. European trading houses represented by point F, on the other hand, show diversification by product and function, but not by area. U.S exporters at point G, are diversified by area and function, but not by product. In contrast, Japanese sogo-shosha, which are marked at point H, are fully diversified in terms of product, area and function.⁽³⁴⁾

Exhibit 8: Diversification Strategies of International Firms



(34) There are 8 corners in the hexadron presented in Exhibit 8. Points E, F, G and H have already been discussed in the main text. Point A is the origin, where a business entity has yet to be established. Points B, C and D represent companies which are diversified only in one dimension. A company at point B is diversified in product, but not in area or function; for example, a general merchandise store. A company at Point C is diversified in area, but not in product or function; for example, a distributor for a manufacturing firm. A company at point D, is diversified in function, but not in area or product, as in the case of a service center of a manufacturing firm.