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STRATEGIC ACTION GENERATION: A COMPARISON OF EMPHASIS PLACED ON GENERIC COMPETITIVE METHODS BY U.S. AND JAPANESE MANAGERS

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The paper identifies similarities and differences in the emphases and patterns that U.S. and Japanese managers attribute to a set of 22 generic competitive methods. It highlights the different ways that Japanese and American managers combine these methods to form general business strategies. Using factor analyses and smallest space analyses, the study shows differences in business strategy patterns between managers in Japan and the U.S. Such differences reflect the organizing principles underlying the strategy approaches in U.S. and Japanese firms. The organizing principle underlying U.S. responses is the desire to find way to differentiate a firm *from its competitors. In contrast the organizing principle underlying Japanese responses is a desire to establish a* comprehensive, stable *and* defensible position. *The paper discusses the implications of these results for strategic management and suggests directions for future U.S. and Japanese comparative strategy research.*

INTRODUCTION

As Japanese growth and economic success have become increasingly obvious, the practices adopted by Japanese firms have become a matter of great interest to U.S. managers. This has led both researchers and practitioners to study those Japanese practices that seem distinctive and critical to their success, e.g., just-in-time inventory controls, zero defect programs, new product development processes, vendor–buyer networks, and *Kaizen*. U.S. firms have often attempted to incorporate these practices, either directly or by developing variants of them in their own operations. Studies that report positively on such initiatives estimate that they frequently result in superior financial performance (cf. *Business Week*, 1992; De Meyer *et al.*, 1989; Reitsperger and Daniel, 1990; Schonberger, 1982).

Key words: Business strategy; culture and strategy; comparative management; Japanese strategies; strategy organizing principles

Daft and Buenger (1990) argue, however, that instead of focusing on how to impact financial performance directly, the objectives of strategy research need be more broadly defined. This advice is particularly appropriate to studies that compare U.S. and Japanese firms because, as Kagono *et al.* (1985) show the historical financial performance achieved by Japanese firms is consistently inferior to that of U.S. firms. Such disparities reflect institutional and cultural differences between the two nations at the national rather than the firm level. For example, institutional and cultural differences at the national level are also likely to ensure that short-term financial performance and profitability remain much more important to U.S. rather than to Japanese firms (Abegglen and Stalk, 1985; Kagono *et al.*, 1985). In order to better understand the alternative approaches to strategic management that distinguish U.S. and Japanese firms, this paper focuses on emphases that managers report their firms pursue at the *firm* level. The aim is to identify and appreciate the cognitive

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understandings which managers from Japan and the U.S. use to both justify and guide their firms' strategic actions.

According to Kogut (1991), a country's effectiveness in international competition reflects the accumulation of a broad range of capabilities or organizing principles within that nation. While specific technologies and observable techniques are relatively easily imitated, organizing principles which underlie the implementation of know-how are difficult to identify and assess. Moreover, taken-for-granted organizing principles that are characteristic of a particular nation are likely to diffuse much more slowly internationally. Hence, in order to contribute to the literature, Kogut (1991) suggests that researchers should attempt to decipher the organizing principles that underlie different cultures and guide the actions of firms. Organizing principles provide a source of competitive advantage that cannot be easily imitated, or they can be a source of competitive disadvantage that cannot be easily unlearned (Fiol, 1991). Such organizing principles serve as general action-generating structures for firms. Hence, by identifying them it is possible to gain a better understanding of how firms differ across nations.

To the extent that firm-level differences exist between cultures, analysis of implicit action-generating structures is: (1) likely to remain a way of identifying important distinctions between firms in different nations; and (2) useful for predicting differences about how firms might behave strategically. However, researchers need to find ways to identify and compare organizing principles that serve as underlying action-generating structures. The approach we adopt here is to identify and highlight patterns in the assessments of Japanese and U.S. managers concerning the degree of importance their firms placed on 22 competitive methods. Based on the analyses of these responses, we suggest some of the action-generating structures that are implied by the results. We also discuss the implications of how these structures guide the strategies pursued by firms from both nations.

We organize the paper as follows. We review the burgeoning literature that considers differences characterizing approaches to management in Japan and the U.S. We then describe the survey instrument that asked samples of U.S. and Japanese managers to indicate the emphasis their firms place on 22 competitive methods. After analyzing, summarizing and comparing the responses of Japanese and U.S. managers, we discuss the significance of the various similarities and differences and consider their implications for theory and practice.

DIFFERENCES IN U.S. AND JAPANESE APPROACHES

Earlier studies of Japanese management (e.g., Abegglen, 1958; Ouchi, 1981) focused on identifying those practices and sociocultural characteristics which, from an American standpoint, were unique and unusual aspects of Japan (Kagono *et al.*, 1985). They were often based on case material which, at one extreme, summarized anecdotes and, at the other, involved intensive studies of particular firms. While these studies have been useful in documenting sociocultural differences, they may also have unintentionally promoted stereotypical views rather than coherent theory (Kagono *et al.*, 1985: 9).

Recently, a growing body of work has provided more systematic comparisons of American and Japanese practices using large sample studies and a variety of data sources (e.g., De Meyer *et al.*, 1989; Kagono *et al.*, 1985; Lincoln, Hanada and McBride, 1986; Pascale, 1978). In addition, contrasts in the ways strategy and manufacturing functions are interpreted, along with the sorts of actions that such interpretations are used to justify, have been increasingly emphasized (e.g., Chikudate, 1991; Garvin, 1986; Hayes, Wheelwright and Clark, 1987; Reitsperger and Daniel, 1990; Schonberger, 1982; Wheelwright, 1981).

Schonberger (1982) and Wheelwright (1981) contrast Japanese and American approaches to inventory management. The Japanese approach emphasizes overall designs for organizational production processes that depend on carefully planned deliveries of inputs to tightly coupled, highly interdependent production units. In such a system, the aim is to achieve 'just-in-time' arrivals of the needed inputs throughout the system. As a result, the levels of inventory maintained are zero or minimal. Relatively few such integrated, production design systems existed in the U.S. until recently. Instead, production systems were sets of loosely-coupled processes. This type of total system design

required inventories to be available as buffers 'just-in-case' there might be needs or unexpected demands. Traditional U.S. approaches to inventory management ignored the possibility that design modifications in the total production system might eliminate the need for inventory. Instead, cost control systems focused on minimizing the total short-term inventory costs incurred by such system designs (Schonberger, 1982). These differences in approach influenced the types of strategic issues which inventory management was perceived to involve and the types of strategic actions that were emphasized.

U.S. and Japanese approaches to quality management are compared by Zuckerman and Hatala (1992) and Cringely (1992). The Japanese approach, developed after World War II and under U.S. influence, is based on a 'zero defects' objective (Cringely, 1992). Such efforts are consistent with the idea of striving for perfection and mastery, actions that are highly respected and traditionally accepted in Japan. In the U.S., however, perceptions about quality management are different. To Americans the idea of 'zero defects' implies that those who are responsible for quality will be subject to personal discipline, controls, and restrictions. The notion of 'perfection', implicit in a 'zero defects' approach, evokes mixed emotions in those responsible for its implementation. While 'zero defects' may be something one admires from afar, it is perceived as both unrealistic and pointless—an end beyond which there is nothing, a key to death or, at best, the road to boredom by U.S. managers. On the other hand, an alternative approach emphasizing continual striving for improvement in quality management seems acceptable within U.S. culture. Since the emphasis is understood to be on continual learning, it is accepted that occasional errors are to be expected. From a cognitive standpoint, the important implication of these different perspectives is that quality programs in Japan and the U.S. are framed to reflect the varied emphases needed for implementation.

Differences at the strategic level

Garvin (1986) describes how quality differences between the U.S. and Japan manifest themselves at the broader, strategic level. Based on data collected from the air conditioning industry, he concludes that along with differences in perceptions of the mix of specific quality problems faced, the general framework used by managers from Japan and the U.S. to think about the underlying strategic quality issues is different. Specifically, Garvin notes that:

> In the United States, many supervisors appear to view factories as closed systems, with the causes of quality problems predominantly internal factors, such as workforce or workmanship, process design, and maintenance. But in Japan, supervisors more closely recognized the impact on a factory's performance of external factors, such as incoming parts and materials or design of products. . . . Such a perspective insures that problems observed in a factory are traced ultimately to their sources—which may be outside its walls—rather than blamed immediately on internal causes (1986: 668)

Attempting to describe similar phenomena, also at a more general level of understanding, Hayes *et al.* (1987) argue that Japanese firms often adopt *dynamic* models of manufacturing emphasizing learning and competence building. They suggest that U.S. firms, in contrast, emphasize a more *static* short-term focus, often directed towards short-term goals such as cost minimization. Their view is supported by Reitsperger and Daniel (1990), who note that while Japanese managers are generally prepared to invest in whatever is required to ensure quality, American managers are more calculative and concerned about trade offs and the particular implications that possible actions might have for achieving short-term cost control goals.

In a landmark study of the strategic practices of firms in Japan and the U.S. Kagono and his colleagues (1985) conclude that U.S. firms tend to adopt a limited *product strategy* orientation, whereas Japanese firms tend to adopt a broadly conceived *operations strategy* orientation. Clarifying this distinction, they argue that a typical Japanese firm seeks to build up competitive advantage through strategies that improve production efficiency and product quality. In contrast, a typical U.S. firm emphasizes its product strategies, mainly striving for product differentiation (1985: 34). They also note that managers in U.S. firms develop a functional expertise and then focus their attention within this specialized area. Though Japanese managers too have functional responsibilities, they maintain a

broader perspective that considers issue extending beyond their assigned function. Kagono *et al.* (1985: 33) find that the typical U.S. manager thinks about strategy in a logical and deductive fashion, analyzing environmental opportunities and risks, assessing the implications of access to financial resources, and evaluating specific domains in which strategies may be pursued. Baba (1989: 91) argues that strategic decision making in U.S. firms: (1) is externalized to the extent that business consultants and outside executives exert influence on it; and (2) is standardized by the 'packages of methods' taught in the established business schools. Thus, the strategies pursued by U.S. firms appear to be better formulated and more clearly stated than those of Japanese firms (Kagono *et al.*, 1985; see also comments by Mintzberg, 1990).[1]

Kagono and his associates (1985) characterize Japanese firms as using a more incremental approach in their thinking about strategic issues. Specifically, they report that Japanese firms adopt an inwardly-directed rather than market-specific definition of relevant strategic domains and often maintain a large degree of freedom so far as final market choices are concerned. The Japanese approach emphasizes resource accumulation and learning from experience, particularly from past operational activities. Cooperative and egalitarian attitudes are regarded as important and are used to advance organizational goals. Efforts to activate learning and contributions at every level are consistent with this approach to strategic issue development and action taking (Chikudate, 1991).

In a theoretical study using evolutionary theory perspective (cf. Weick, 1979) to compare U.S. and Japanese approaches to strategic management, Burgelman (1988) contrasts the ways firms' self-renewal processes are managed in the respective countries. In U.S. firms, renewal depends on individual managers acting as champions to promote new ideas. Such efforts may occur at all levels of a firm. In Japanese firms, action is expected to be initiated, led and directed by top management. Burgelman (1988) reasons that, based on these alternative approaches to firms' self-renewal, the patterns of strategic emphasis of U.S. firms appear relatively loose, uncorrelated, differentiated and complex. Because of the emphasis on maintaining centralized control of firms' self-renewal processes, the patterns of strategic emphasis in Japanese firms seem more tightly coupled and integrated, and new initiatives are rather difficult to distinguish from established strategic trajectories.

Approaching the matter from a different direction, Sullivan and Nonaka (1988) find that while U.S. managers categorize strategic issues as opportunities, Japanese managers categorize the same issues as problems or threats. They argue that the 'emphasis of Japanese senior managers on strategic issues as problems may be rooted in Japanese interpretations of their history as a long series of natural disasters, wars, economic depressions, and social catastrophes. Japanese tend to see themselves as people who must overcome problems' (1988: 9).

These studies are provocative. They promote a sensitivity to the differences in approaches to strategic management that distinguish managers in the U.S. from those in Japan. They highlight U.S. managers' general tendencies to view strategic opportunities and to define organizational problems relatively narrowly around either specific goals or functional responsibilities. They also suggest that U.S. managers analyze and rationalize their options within these narrowly defined organizational areas and then feel comfortable and confident with their conclusions. Further, even though they may ignore broader contexts, U.S. managers justify their actions by taking short-term financial goals well into account. They describe the U.S. tendency to clarify the strategy formulation process by using external consultants and standardized 'packages of methods' taught in the established business schools. Finally, they note U.S. managers' preoccupation with externally oriented *product-driven* strategy. This contrasts with the broader internally-oriented manufacturing *process-driven* approach that is preferred by Japanese managers. The Japanese approach identifies potential problems in advance, devotes considerable time to discussing the possible implications in a broader situation, and attempts to reach a consensus about the strategic decisions that are to be made. Thus, strategy formulation and implementation

[1] Imai, Nonaka and Takeuchi (1985) make a similar argument with respect to the new product development process in U.S. and Japanese companies. They describe the U.S. approach as being 'analytical and sequential', while the Japanese approach is 'incremental and overlapping'.

become highly integrated activities that are difficult to modify or change.

Based on the literature review and the discussion above, we undertake an open, broad-based exploration to identify differences between U.S. and Japanese approaches to strategy. The following propositions guide this exploratory research:

Proposition 1: A comparison of the emphases that are attributed to different competitive methods will identify significant differences between U.S. and Japanese managers.

Proposition 2: A comparison of the patterns *in how competitive methods are combined will identify significant differences between U.S. and Japanese managers.*

Our review also suggests additional propositions concerning more specific differences in emphases that characterize approaches to strategy in the two nations:

Proposition 3: U.S. managers emphasize a relatively narrow *set of competitive methods, while Japanese managers emphasize a* broader range *of competitive methods.*

Proposition 4: U.S. patterns emphasize a product-driven *strategy that is externally oriented, while Japanese patterns emphasize a more* process-driven *strategy that is internally oriented.*

METHOD

Our aim is to explore and analyze the different emphases that managers from the U.S. and Japan report their firms place on alternative methods of competitive strategy. The components of competitive strategy in the U.S. have been discussed frequently (e.g., Dess and Davis, 1984). As the Japanese have been keen students of American management practices, these same components are also meaningful in a Japanese context and can serve as an appropriate basis for comparing managers of the two nations. Furthermore, as most of these firms are active participants in global markets, there are objectively few differences in the competitive options that are actually available. As a result, any consistent differences in the emphases reported by managers likely reflect contrasts in strategic approaches and hence suggest alternative organizing principles that are characteristic of strategic understandings in the respective countries (Kogut, 1991).

Samples

U.S. firms

The U.S. sample was drawn from firms listed in the Compact Disclosure Database. All members of the Standard Industrial Classification (SIC) codes 34-39, which includes firms in metal fabrication, nonelectrical machinery, electronic machinery, transportation equipment, instrumentation and miscellaneous manufacturing, were included in the sample (see Table 1). We selected firms from this group because it involves the manufacture of discrete products based primarily on metal and nonmetal fabrication, but excludes process (i.e., continuous production) industries. Given our need to keep the industries relatively homogeneous and for a large sample size, this group of six industries was a reasonable compromise directed towards accomplishing both goals. The sample is of additional interest, however, as it includes several industries that have been significantly affected by the emergence of Japanese competitors.

Out of the 1,652 firms classified under these SIC codes, surveys were sent to the 851 firms with complete information in the Compact Disclosure Database. Of these firms, 31 firms declined to participate citing company policy, and 22 questionnaires were undeliverable. This left 798 potential respondents. A total of 177 completed questionnaires were returned for a response rate of 22 percent. This return rate is roughly comparable with those achieved by surveys with similar objectives (Hitt, Ireland and Palia, 1982). In the 17 cases of multiple responses from the same firm, interrater agreement was checked using the procedure followed by Shortell and Zajac (1990). As 83 percent (312/374) of the responses were either identical or within one interval of one another, we concluded that a satisfactory degree of interrater reliability had been achieved. Only the responses of the senior-most officers were retained. This left a final sample of 160 respondents.

Table 1. Industries and respondents—U.S. sample

SIC Code	Industry description	No. of responses	% of responses	Questionnaires mailed	% of total mailed
34	Fabricated metal products	11	8.7	63	7.4
35	Industrial machinery and equipment	36	28.4	259	30.4
36	Electronic & other electric equipment	33	25.9	239	28.1
37	Transportation equipment	9	7.0	57	6.7
38	Instruments and related products	32	25.3	188	22.1
39	Miscellaneous manufacturing industries	6	4.7	45	5.3
Other*		33	—	—	—
Total		160	100**	851	100
Respondents					
1	Chairman/CEO/COO	26	16.3		
2	President	36	22.5		
3	Senior VP/executive VP/VP	49	30.6		
4	Director/general manager	16	10.0		
5	Others	33	20.6		
Total		160	100		

* Respondents who failed to disclose the identity of their firms.
** Excluding 'Other'.

In Table 1, we compared the 160 responding firms with the 851 firms that originally received the questionnaire. A chi-square test of the comparable percentages confirms there are no statistically significant differences, so there is no reason to expect systematic, industry bias.

Japanese firms

This sample was drawn from firms listed on the Tokyo Stock Exchange. To facilitate a meaningful comparison with the American sample, the firms selected belonged to broadly the same SIC codes 34–39. Table 2 shows the number of firms in the sample and their distribution across the various industries.

Questionnaires were sent to 793 firms. We received 125 completed questionnaires, one from each responding firm. This response rate of 16 percent is low but not unusual, given that Japanese managers are typically reluctant to participate in mail surveys. In addition, a single response from each firm is not a surprise. Japanese managers will not generally return a questionnaire unless it has been discussed among appropriate firm members and it has been agreed that: (1) responding to the questionnaire is an appropriate corporate action; and (2) the responses are generally accepted as the firm's current position on the matters discussed. A comparison in Table 2 of the 125 responding firms with the 793 firms that received the questionnaires shows no industry biases.

Respondents and instrument

In both countries, we asked that the surveys be completed by either a top level official of the firm or the business unit manager in the case of businesses with multiple units. In the U.S. sample, 40 percent of the respondents were CEOs or presidents with approximately 70 per cent holding titles of vice-president or higher (see Table 1). In the Japanese sample, over 50 percent of the respondents had titles of general manager or above (see Table 2).

The survey instrument included a list of 22 *generic* competitive methods which have been used extensively in the U.S. literature to operationalize patterns of strategy at the business unit level (cf. Dess and Davis, 1984). Respondents were asked to indicate on a 5-point Likert-like scale the emphasis their firms placed on these 22 competitive methods over the past 3 years. Points on the scale had the following meanings: 1 = not considered; 2 = very limited emphasis;

Table 2. Industries and respondents—Japanese sample

SIC Code	Industry description	No. of responses	% of responses	Questionnaires mailed	% of total mailed
34	Fabricated metal products	9	7.2	98	12.4
35	Industrial machinery and equipment	14	11.2	125	15.8
36	Electronic & other electric equipment	20	16.0	115	14.5
37	Transportation equipment	27	21.6	236	29.8
38	Instruments and related products	24	19.2	177	22.3
39	Miscellaneous manufacturing industries	31	24.8	42	5.3
Total		125	100	793	100
Respondents					
1	President	1	0.8		
2	Executive	11	8.8		
3	General manager	44	35.2		
4	Manager	23	18.4		
5	Others*	46	36.8		
Total		125	100		

* Respondents who failed to reveal their title.

3 = some emphasis; 4 = considerable emphasis; and 5 = major constant emphasis.

Preliminary drafts of the questionnaire were discussed with academic scholars to assess the content validity. This was followed up by a pilot test with five U.S. firms that enabled the comprehensiveness, clarity and relevance of the items to be further improved. The English version of the questionnaire was translated into Japanese and checked by two Japanese researchers. The Japanese version of the questionnaire was then reviewed by an English speaking researcher fluent in Japanese. The aim was to ensure that there was conceptual equivalency between the two versions. We believe that so far as it is possible when working with a translated instrument, the 22 competitive methods included are equivalent to one another in the U.S. and Japanese versions of the questionnaire.

ANALYSIS AND RESULTS

Analysis

Three separate analyses were carried out. We used *t*-tests to compare the mean scores obtained from the two samples. These results are presented in Table 3. A Factor Analysis (FA) of the respective country responses was the first approach to identifying meaningful patterns. A Smallest Space Analysis (SSA) was carried out based on the same correlation data in order to provide a second independent approach to pattern identification.

The objectives of an FA and an SSA are similar in that both determine groupings of variables based on correlation between the variables. However, along with the methods they use to isolate patterns, the assumptions underlying the procedures differ. An FA, for example, is a step-by-step procedure designed to draw out as much of the sample variance as possible as each factor is calculated. The meaning attributed to a factor usually considers only those variables with higher loadings. Interpretations tend to omit consideration of the variance associated with items having weak loadings and simply ignore sample variance that has not been included in the factor solution. As a result, factor interpretations are based on a portion of the sample variance that has been systematically isolated rather than on the total variance in the original sample.

An SSA, on the other hand, is a multidimensional nonmetric scaling procedure that uses correlations between the variables to place them in appropriately contiguous positions in an *n*-dimensional Euclidean Space. The function of the SSA algorithm is to transform the correlations among the variables into a spatial configuration

Table 3. Importance attributed to competitive methods

#	Competitive method	American				Japanese				*t*-tests signif.
		Rank	Mean	S.D.	*N*	Rank	Mean	S.D.	*N*	
S6	Quality of your product	(1)	4.43	0.7	157	(3)	4.25	0.8	122	$p < 0.025$
S1	New product development	(2)	4.22	0.9	159	(1)	4.49	0.8	123	$p < 0.025$
S2	Operating efficiency of the business unit	(3)	4.22	0.7	158	(6)	3.93	0.9	121	$p < 0.005$
S4	Enforcing strict product quality control procedures	(4)	4.13	0.9	155	(4)	4.04	0.9	121	ns
S22	Efforts to build reputation	(5)	4.01	0.9	159	(20)	2.73	1.0	119	$p < 0.005$
S12	Extensive customer service capabilities	(6)	3.87	0.9	159	(5)	3.96	0.9	121	ns
S3	Continuing, overriding concern for cost reduction	(7)	3.82	0.9	157	(2)	4.28	0.7	123	$p < 0.005$
S15	Refining existing products	(8)	3.56	0.9	158	(15)	3.36	0.9	121	$p < 0.05$
S5	Price	(9)	3.52	0.8	157	(13)	3.50	1.3	121	ns
S19	Products in high priced segments	(10)	3.51	1.2	159	(14)	3.38	1.0	118	ns
S8	Building brand identification	(11)	3.43	1.1	157	(12)	3.52	1.1	120	ns
S7	Offering a broad product range	(12)	3.41	1.0	158	(7)	3.88	0.8	121	$p < 0.005$
S11	Innovation in manufacturing process	(13)	3.36	2.0	159	(8)	3.83	0.9	120	$p < 0.025$
S13	Specific attempts to insure a pool of highly trained experienced personnel	(14)	3.29	1.0	159	(11)	3.58	1.0	121	$p < 0.025$
S18	Capability to manufacture specialty products	(15)	3.28	1.3	159	(9)	3.74	1.0	120	$p < 0.005$
S16	Innovations in marketing techniques and methods	(16)	3.16	1.1	159	(10)	3.61	0.9	121	$p < 0.005$
S9	Influencing channels of distribution	(17)	3.13	1.2	159	(18)	3.12	1.2	120	ns
S10	Major efforts to insure the availability of raw materials	(18)	2.99	1.0	159	(16)	3.30	1.0	121	$p < 0.025$
S21	Efforts to enhance quality of advertising	(19)	2.49	1.0	159	(19)	2.79	1.0	120	$p < 0.025$
S20	Serving special geographic segments	(20)	2.33	1.1	159	(22)	2.55	1.0	119	$p < 0.05$
S14	Maintaining high inventory levels	(21)	2.31	1.0	159	(17)	3.19	1.0	119	$p < 0.005$
S17	Promotion and advertising above industry average	(22)	2.32	1.1	158	(21)	2.63	1.0	120	$p < 0.025$

Managers indicated the degree of emphasis their business unit attached to these items relative to their competitors for the past 3 years. Likert type scales were used where 1 = not considered and 5 = major constant emphasis.

that preserves the rank ordering of the various correlations (Lingoes, 1973). Thus, the distance between any two points corresponds to the magnitude of the correlation between the competitive methods they represent. Unlike an FA, an SSA attempts to preserve the variance in a sample, allowing all of it to be interpreted. In the process of reducing the dimensionality of the spatial representation to facilitate interpretation, however, some accuracy of representation is inevitably sacrificed. This sacrifice is measured by a coefficient of alienation. Smaller values of the coefficient imply a better fit between the SSA solution and the original correlation matrix, with a value of zero indicating a perfect fit. In practice, coefficient of alienation values of around

0.15 are usually considered to indicate an SSA solution that provides an acceptably accurate representation of the original correlation data (Guttman, 1968).

Results of means and *t*-tests

The results of the test of differences between means is presented in Table 3. They suggest there is little difference in the ranges of emphasis that American and Japanese managers place on alternative competitive methods. The range of the American averages is from 4.43 to 2.32, while the range of Japanese averages from 4.49 to 2.55. Table 3 also discloses other similarities. Managers from both countries indicate, for example, that they place a relatively high emphasis on: (1) product quality and quality controls; (2) new product development; (3) operating efficiency; (4) extensive customer service capabilities; and (5) cost reduction. Neither American nor Japanese firms report much emphasis on promotion and advertising issues. This latter finding probably reflects the fact that our sample is drawn exclusively from manufacturing firms serving industrial consumers and advertising is not the emphasized way of communicating with these customers.

Table 3 also discloses important differences: 16 out of 22 items are statistically significant in their differences. The results suggest that American attention is relatively concentrated, placing more emphasis than the Japanese on: (1) product quality; (2) the operating efficiency of business units; (3) building reputation; and (4) refining existing products. Building reputation receives strong emphasis from U.S. managers by being ranked 5th. However, this method is relatively deemphasized by the Japanese, ranking 20th of 22 variables. This difference in emphasis is the largest of all the methods assessed. In contrast, the Japanese place more emphasis on: (1) new product development efforts; (2) cost reduction; (3) offering a broad line of products; and (4) being able to manufacture specialty products. They also place more emphasis on being innovative in manufacturing and in marketing, on enhancing advertising quality, on having pools of highly trained expert personnel readily available, and on raw material and inventory availability than do U.S. managers. They generally place a greater emphasis on competitive methods that appear to be of secondary importance to U.S. managers.

In terms of the generalizations that may be drawn from the results, it would seem that managers in both countries emphasize many similar competitive methods. On the other hand, there are also important differences in emphasis which appear consistent with previous findings (e.g., De Meyer *et al.*, 1989). U.S. managers seem to have a more limited focus, concentrating their attention on quality and operating efficiency issues as well as building up their firm's reputation. They seem to favor high priced segments and the associated price and reputation requirements. Japanese managers, in contrast, report more emphasis on new product development, product line breadth and cost. Generally, it appears that they place more emphasis on a broader range of competitive methods, many of which are considered to be of secondary importance by U.S. managers. These results provide support for Propositions 1 and 3.

Results of factor analyses

Kim and Mueller (1986) suggest that in exploratory research using factor analysis, a variable loading above 0.45 is an appropriate cutoff point for making interpretations. In general, we adhere to this rule in discussing the meanings of factors based on our U.S. and Japanese samples.

U.S. sample

An FA of the U.S. sample suggested a six factor solution was appropriate (i.e., eigenvalues > 1). To help interpret the factors obtained from the U.S. sample, we sought help from the work of experts on strategy in North America (e.g., Porter, 1980; Mintzberg, 1988). These authors suggest that firms compete by differentiating their offerings through the emphases they place on price, image, support, quality, scope and product design, among others. That is, the underlying aim of firms who are in strategic competition is to differentiate themselves from their competition in one or more areas.

In Table 4, Factor 1 has high loadings on product quality, enforcing strict product quality control procedures, innovation in manufacturing, ensuring a pool of highly trained and experienced personnel, and having extensive customer service

Table 4. Results of factor analysis—U.S. sample

	Competitive method	Quality diff. I	Image diff. II	Product diff. III	Price diff. IV	Scope diff. V	Cost control VI
S6	Quality of your product	**0.77**	0.27	0.08	−0.06	−0.23	−0.04
S4	Enforcing strict product quality control procedures	**0.69**	0.03	0.23	0.07	−0.16	0.03
S11	Innovation in manufacturing process	**0.64**	0.09	−0.02	0.17	0.26	0.21
S13	Specific attempts to insure a pool of highly trained experienced personnel	**0.60**	0.13	0.05	−0.10	0.16	0.21
S12	Extensive customer service capabilities	**0.54**	0.14	0.14	0.13	0.27	−0.15
S18	Capability to manufacture speciality products	0.07	**0.66**	−0.11	−0.18	0.35	0.09
S17	Promotion and advertising above industry average	−0.08	**0.60**	0.36	0.17	0.16	−0.12
S22	Efforts to build reputation	0.23	**0.58**	0.07	0.14	−0.15	0.09
S15	Refining existing products	0.33	**0.58**	0.01	−0.03	−0.07	−0.03
S21	Efforts to enhance quality of advertising	0.03	**0.55**	0.32	0.33	0.23	−0.03
S19	Products in high priced segments	0.16	**0.50**	0.16	−0.33	0.31	0.05
S9	Influencing channels of distribution	0.16	−0.05	**0.78**	0.14	0.07	−0.06
S8	Building brand identification	0.06	0.30	**0.68**	0.12	0.12	0.03
S1	New product development	0.38	0.07	**0.48**	−0.37	−0.04	−0.02
S16	Innovations in marketing techniques and methods	0.19	0.41	**0.46**	0.04	−0.07	0.40
S5	Price	−0.10	0.15	0.14	**0.64**	0.18	0.12
S10	Major efforts to insure the availability of raw materials	0.27	−0.06	0.16	**0.61**	0.09	−0.15
S2	Operating efficiency of the business unit	0.44	0.15	−0.10	**0.45**	−0.12	0.38
S20	Serving special geographic segments	0.16	0.11	−0.01	0.06	**0.71**	−0.01
S7	Offering a broad product range	−0.19	0.06	0.26	0.21	**0.59**	−0.18
S14	Maintaining high inventory levels	0.04	0.17	0.05	0.33	0.02	**−0.68**
S3	Continuing, overriding concern for cost reduction	0.16	0.00	0.03	0.30	−0.07	**0.67**
Eigenvalue		4.62	2.20	1.60	1.30	1.20	1.04
Percent of variance explained		21.0	10.4	7.3	6.0	5.5	4.7

capabilities. This clustering of variables suggests a general emphasis on *quality* concerns and differentiation via quality.

High factor loadings on the second factor include an emphasis on high promotion and advertising expenditures, reputation building efforts, efforts to enhance advertising quality, refining existing products, and ability to manufacture specialty products. This suggests a broad strategy of *image* differentiation. The aim of this strategy is to create perceived differences for products that are in fact not different at all. The focus of this strategy is on carving a psychological niche in the minds of the customers through advertisements (Porter, 1980; Mintzberg, 1988).

Competitive methods with high loadings on the third factor include the emphasis placed on developing new products, influencing channels of distribution, building brand identification, and innovating in marketing methods and techniques. While these strategic emphases encompass diverse functions, the underlying theme seems to be

product differentiation. Product differentiation refers to 'offering something that is truly different, that breaks away from the dominant design, to provide unique features' (Mintzberg, 1988: 20). The fourth factor, which contains high loadings on price, raw material availability and operating efficiency, suggests an emphasis on controlling inputs and throughputs in ways that control costs and hence prices, i.e. *low cost/price*. The fifth factor incorporates high loadings on the emphasis placed on offering a broad range of products and serving special geographic areas. This pairing suggests an emphasis on differentiation through scope, where the goal is to promote a cluster of products to fulfill different customers' needs in a large geographic market. A sixth factor has a high positive loading on the cost reduction variable and a high negative loading on inventory levels suggesting an alternative way of approaching issues of *cost control*. Our factor interpretations closely parallel the conceptual schemes proposed in the strategy literature for achieving differentiation. We conclude therefore, that the organizing principle underlying the emphasis on strategic alternatives characteristic of U.S. managers is a desire to achieve organizational differentiation.

Japanese sample

To help understand how factors derived from the Japanese sample might be appropriately interpreted, we sought help from the work of Kenichi Ohmae, a Japan observer and commentator on strategic management practice. According to Ohmae (1982), the Japanese approach to firm strategy consistently emphasizes the importance of establishing strong, comprehensive, stable and defensible positions which take into account and serve the needs of a firm's customers. Notes Ohmae:

> . . . [T]he Japanese competitive achievement provides hard evidence that a successful strategy's hallmark is the creation of sustainable competitive advantage by beating the competition. If it takes world-class manufacturing to win, runs the lesson, you have to beat competitors with your factories. If it takes rapid product development, you have to beat them with your labs. If it takes mastery of distribution channels, you have to beat them with your logistics systems. No matter what it takes, the goal of strategy is to beat the competition. (1982: 149)

He argues that because of this focus on beating the competition, it is inevitable that strategy is defined primarily in terms of position relative to the competition. This notion of relative positioning is also echoed in the writing of Abegglen and Stalk (1985) in their description of competitive battles between Honda Motors and Yamaha. That is, the underlying aim of firms is to establish positions that are stable and defensible relative to those that may be created by competitors. Thus, in terms of the way American strategy texts describe such matters the Japanese approach seems to place high emphasis on relative positioning in preparation for battles with competitors.

The FA of the Japanese sample suggested that a five-factor solution was appropriate. However, only three of these factors have more than one competitive method with high loadings. As shown in Table 5, Factor 1 contains a broad spectrum of activities which, taken together, seem to indicate an emphasis on creating an integrated and balanced chain from suppliers to customers. Competitive methods included in Factor 1 are the emphasis placed on extensive customer service capabilities, new product development, building brand identification, innovations in marketing methods and techniques, operating efficiency, enforcing strict product quality control procedures, and ensuring the availability of a pool of highly trained and experienced personnel. Since this list includes methods that reflect both an internal orientation concerning process issues (e.g., operating efficiency) and a broad external orientation concerning new product and marketing issues (e.g., innovations in marketing methods and techniques), it reflects a very comprehensive and balanced positioning. Hence, Factor 1 is labeled *balanced positioning*.

The second factor includes high loadings on innovation in the manufacturing process, efforts to ensure raw material availability, maintaining high inventory levels, offering a broad product range, refining existing products, product quality concerns and a continuing overriding concern for cost reduction. This factor encompasses items that are oriented towards recurring management issues in 'operations' and is labeled *operational positioning*. A third factor includes high loadings on enhancing the quality of advertising, having promotion and advertising expenditures above the industry average, efforts to build reputation,

Table 5. Results of factor analysis--Japanese sample

	Competitive method	Balanced posit. I	Operational posit. II	Market posit. III	Segment posit. IV	Price posit. V
S12	Extensive customer service capabilities	**0.72**	0.13	0.21	0.21	0.11
S1	New product development	**0.69**	0.08	0.15	0.01	−0.06
S8	Building brand identification	**0.68**	0.28	0.22	0.02	0.08
S16	Innovations in marketing techniques and methods	**0.67**	0.11	0.29	0.04	−0.19
S2	Operating efficiency of the business unit	**0.62**	0.16	0.04	0.22	0.26
S4	Enforcing strict product quality control procedures	**0.49**	0.28	−0.07	0.43	0.14
S13	Specific attempts to insure a pool of highly trained experienced personnel	**0.43**	0.24	0.15	0.39	0.25
S18	Capability to manufacture specialty products	0.39	0.30	0.20	0.33	0.32
S11	Innovation in manufacturing process	0.12	**0.72**	0.00	0.32	0.10
S10	Major efforts to insure the availability of raw materials	0.06	**0.72**	0.21	0.12	−0.03
S14	Maintaining high inventory levels	0.27	**0.65**	0.27	0.09	−0.19
S7	Offering a broad product range	0.25	**0.59**	0.06	−0.08	0.31
S15	Refining existing products	0.33	**0.50**	0.40	0.08	−0.14
S6	Quality of your product	0.47	**0.49**	−0.09	0.38	0.06
S3	Continuing, overriding concern for cost reduction	0.35	**0.43**	0.00	0.32	0.26
S21	Efforts to enhance quality of advertising	0.24	0.05	**0.82**	0.06	0.08
S17	Promotion and advertising above industry average	0.20	0.12	**0.72**	−0.04	0.15
S22	Efforts to build reputation	0.05	0.29	**0.67**	0.14	0.03
S20	Serving special geographic segments	0.03	−0.12	**0.67**	0.44	−0.08
S9	Strong influence over channels of distribution	0.41	0.37	**0.54**	−0.09	0.18
S19	Products higher priced market segments	0.13	0.21	0.22	**0.76**	−0.09
S5	Price	0.03	0.00	0.14	−0.00	**0.85**
Eigenvalue		7.70	1.90	1.34	1.19	1.05
Percent of variance explained		35.0	9.1	6.1	5.4	4.8

serving special geographic segments, and having strong influence over channels of distribution. These variables all concern a firm's relative position in the external environment and so Factor 3 is called *market positioning*. Two additional factors in the FA solution each include a single variable with a high loading. Factor 4 consists of the competitive method 'emphasizing products in higher priced market segments,' and Factor 5 consists of the item, 'price.'

Groupings in the FA for the Japanese sample suggest that, consistent with Ohmae (1982), the primary concern of Japanese managers is to use competitive methods to establish a position of relative strength in the market place. The large number of methods included in the first factor suggests efforts to establish a *balanced* position, providing a seamless integration from supplier concerns to customer needs. Factor 2 suggests additional *operational* positioning around recurring internal manufacturing process related issues. Factor 3 focuses attention on the firm's market positioning. Finally, having products available for high priced segments and general pricing issues seem to be separate strategic concerns. Table 6 summarizes the groupings of the competi-

Table 6. Comparison of U.S. and Japanese factor items

American managers	Japanese managers
Quality differentiation	*Balanced positioning*
Quality of your product	Extensive customer service capabilities
Enforcing strict product quality control procedures	New product development
Innovation in manufacturing process	Building brand identification
Specific attempts to insure a pool of highly trained experienced personnel	Innovations in marketing techniques and methods
Extensive customer service capabilities	Operating efficiency of the business unit
	Enforcing strict product quality control procedures
Image differentiation	Specific attempts to insure a pool of highly trained experienced personnel
Capability to manufacture specialty products	Capability to manufacture specialty products
Promotion and advertising above industry average	
Efforts to build reputation	*Operational positioning*
Refining existing products	Innovation in manufacturing process
Efforts to enhance quality of advertising	Major efforts to insure the availability of raw materials
Products in high priced segments	Maintaining high inventory levels
	Offering a broad product range
Design differentiation	Refining existing products
Influencing channels of distribution	Quality of your product
Building brand identification	Continuing, overriding concern for cost reduction
New product development	
Innovations in marketing techniques and methods	*Market positioning*
	Efforts to enhance quality of advertising
Low cost/price differentiation	Promotion and advertising above industry average
Price	Efforts to build reputation
Major efforts to insure the availability of raw materials	Serving special geographic segments
Operating efficiency of the business unit	Strong influence over channels of distribution
Scope differentiation	*Segment positioning*
Serving special geographic segments	Products in higher priced market segments
Offering a broad product range	
	Price positioning
Cost strategy	Price
Maintaining high inventory levels	
Continuing, overriding concern for cost reduction	

tive methods by factors as they were found in the U.S. and Japanese samples.

The arrangement of the factors and the competitive methods that load on them suggest that there are fundamental differences in the strategy patterns between Japan and the U.S. (see Table 6). This finding provides support for Proposition 2. In the case of Japan, based on the number of competitive methods that load on Factor 1, it appears that Japanese managers stress an unusually broad combination of both externally oriented *product-driven* and inwardly-directed *process-driven* competitive methods. Thus, relative to the findings of previous studies (Kagono *et al.*, 1985), the findings here suggest that Japanese firms emphasize an integration of process *and* product approaches to strategy. In contrast, U.S. managers emphasize alternative methods for differentiating their firms from competitors. Thus, Proposition 4 is supported by the findings for the U.S. case, but only partially supported by those for the Japanese case. These findings are further strengthened by examining the SSA results.

Smallest space analyses

While FA provides an indication of the structure of the specific factors and the relative ordering of methods, SSA provides a graphical presen-

tation of the ways the competitive methods group together and how these groupings are related to one another. Although both FAs and SSAs use correlations as the basis for their pattern identifying process, the differences in the assumptions and the procedures used by the respective methods mean that there are likely to be both similarities and differences in the patterns identified. Based on the correlations presented in the Appendix, therefore, two- and three-dimensional SSA solutions were calculated for the U.S. and Japanese samples.

U.S. sample

For this sample, the coefficients of alienation for the two- and three-dimensional SSA solutions were, respectively, 0.22 and 0.15. Figures 1a, 1b and 1c present each of the three faces of the three-dimensional SSA solution. Each face of the three-dimensional SSA solution suggests that the 22 variables can be meaningfully divided into regions that correspond approximately to four of the six factors identified in the FA. Hence, the SSA solution facilitates some degree of simplification of the groupings presented in the FA. Specifically, Factor 6, which was interpreted as an emphasis on cost control and which did not fit easily into Mintzberg's (1988) differentiation scheme has, in fact, been absorbed into the other variable clusters in all faces of the SSA solution. The other five factors either are confirmed or their variables are redistributed into the other four groupings in the various faces of the SSA solution. The regions of the SSA solution have been numbered so as to highlight the similarities and contrasts with the FA solution. Numbers that correspond to the points that are connected to form SSA regions represent the competitive methods described in Table 3.

Figure 1a shows that the third factor, *product design* differentiation, has been absorbed into the other regions of the solution. Thus, in Figure 1a, there is no region labeled 3 or 6. Region 1 includes the quality competitive methods from the first factor of the FA and two additional methods—influencing channels of distribution (9) and innovations in marketing techniques and methods (16). Inclusion of these methods in this region led to it being named *quality and marketing*. Region 2 includes all the image differentiation methods and, in addition, the methods concerned with building brand identification (8) and new product development (1).

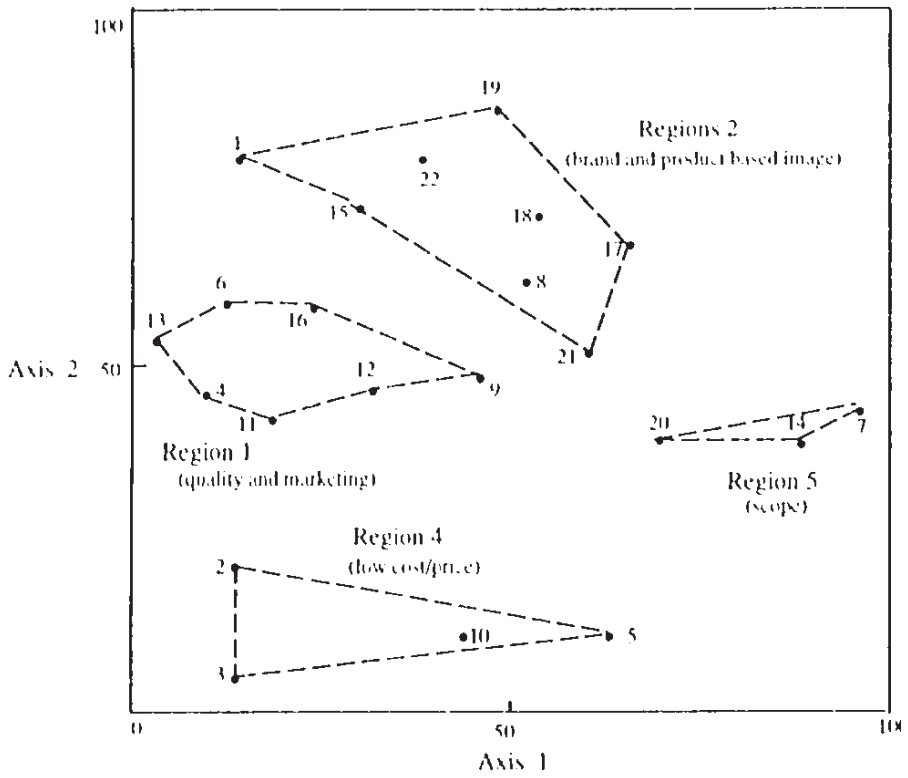

Figure 1a: SSA diagram for the US sample
Axis 1 versus Axis 2

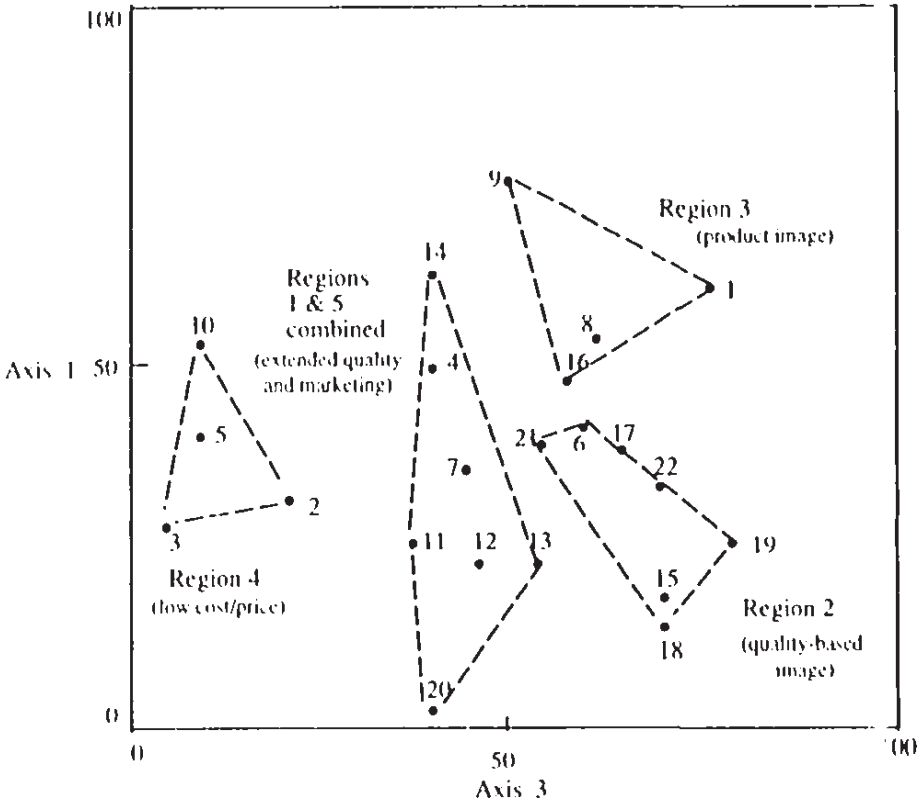

Figure 1b: SSA diagram for the U.S. sample
Axis 1 versus Axis 3

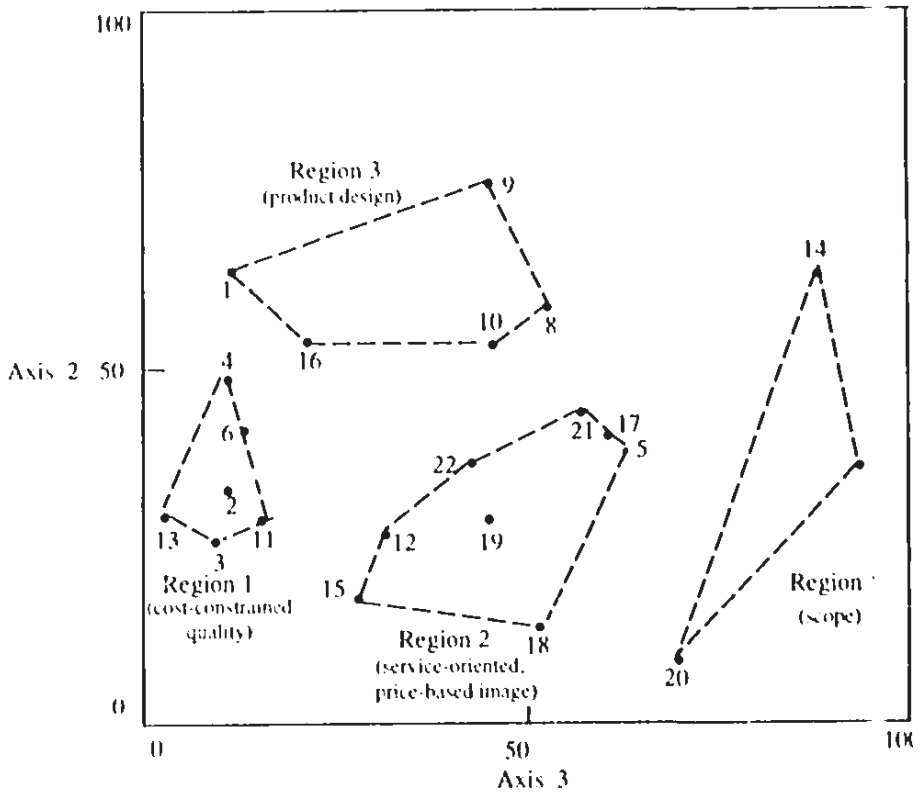

Figure 1c: SSA diagram for the U.S. sample
Axis 2 versus Axis 3

Hence, region 2 is labeled *brand-* and *product-based* image.

Region 4 includes the three competitive methods associated with an emphasis on low cost/price as well as the method emphasizing a continual, overriding concern for cost reduction (3). Thus, Region 4 retains the label, *low cost/price*. Region 5 includes the two methods representing a firm's emphasis on differentiation through *scope* and adds one further method, maintaining high inventory levels (14). Region 5 retains the label, *scope*.

Figures 1b and 1c, provide the other two faces of the SSA solution. While each suggests that just four regions are sufficient to group the methods, the content of the various consolidations differ. In Figure 1b, Region 3 consists of the same four methods included in the *product design* factor in the FA solution. Another grouping of four methods, Region 4, includes a continuing overriding concern for cost reduction (3) and remains appropriately named *lost cost/price*, as in the FA. In contrast to the FA, however, there is an important group of factors in Regions 1 and 5 combined. This region combines the competitive methods from product *scope* with most of the methods included in the broadly defined *quality* factor. The exception is the quality of product method (6), itself, which is associated with *image* in Figure 1b. To highlight these changes in groupings, the regions in Figure 1b are labeled, respectively, *extended quality and marketing* and *quality-based image*.

The face of the SSA in Figure 1c again shows a separate Region 5 that includes the three competitive methods associated with *scope*. Quality of product (6) is again found with most of the other quality-oriented variables which, in turn, now include the operating efficiency (2) and cost control (3) methods. This reconfigured Region 1 is labeled *cost-constrained* quality. Similarly, the methods included in the cluster concerned with *image* change slightly and now include the emphasis placed on extensive customer service (12) and price (5). Region 2 is labeled *service-oriented, price-based image*. Finally, the methods emphasizing differentiation through *product design* now include an emphasis on ensuring the availability of raw materials (10). As this simply adds another item where it is possible for design efforts to be applied, Region 3 continues to be labeled *product design*.

The SSA solution of the U.S. data highlights how, using a different technique and the same data set, competitive methods may be added to or deleted from the various cluster groupings. Yet even with these changes, a meaningful interpretation of the patterns is possible and indicates alternative strategic thrusts directed towards achieving varying types of differentiation. Broad-based emphasis on *quality* or *image*, as were obtained in the FAs, are now more specifically focused in the different faces of the SSA. These modified emphases focus, respectively, on a combination of *quality and marketing*, or *cost-constrained quality*. Similarly, instead of a general emphasis on image, the SSA suggests strategic efforts may promote a *brand-* and *product-based image*, a *quality-based image*, a *service-oriented image*, or a *price-based image*. There seem to be core concerns that product design efforts can focus upon, and there are also methods that are sometimes part of the product design effort and at other times, are not. *Scope* can be seen as a separate area of activity or it can also be combined with other variables to develop a notion of *extended quality and marketing*.

These changes in variable groupings and their apparent meaningfulness suggest some of the difficulties in interpreting the differentiation strategies pursued by U.S. managers. From a U.S. viewpoint, the process of strategic differentiation implies stability only for, at most, the medium term or until managers believe that market changes necessitate adjustments. Yet from a Japanese perspective, this strategic flexibility might also be appropriately described as strategic ambiguity or even indecision. This is because the Japanese focus on building stable, defensible positions for a longer time period and make incremental adjustments in the short-term within these constraints.

Japanese sample

For this sample, the coefficient of alienation for the two- and three-dimensional SSA runs were, respectively, 0.24 and 0.17. Figures 2a, 2b and 2c present the three faces of the three-dimensional SSA solution. As compared with the FA, the SSA solution offers simplification in terms of the number of distinct cluster groupings that are necessary to understand the data.

In Figure 2a, in particular, it is evident that, with one exception, all competitive methods are clustered together to form a single grouping labeled *broad overall positioning*. The emphasis placed on price (5) is the one variable not included, and it is similarly isolated in Figure 2c. This spatial representation strongly suggests that Japanese managers consider *price* as an issue unrelated to other strategic concerns—it is something considered to be strategically separate.

This separation makes sense in the Japanese context. Rather than being regarded as a competitive method over which one can exercise choice as in the U.S., prices in Japan tend to be uniform and are regarded as a reflection of industry-wide pressures that constrain all firms' activities. That is, firms are subject to price pressures from their competitors and, in turn, firms seek to push their own prices down to exert reciprocal pressures on their competition. Firms set price reduction targets and then push for improvement in their own performance and in that of their suppliers in order to reach these targets (Abegglen and Stalk, 1985). An additional issue arises because many of the Japanese firms in the sample are heavily involved in exporting (Ito and Pucik, 1993). Japanese firms are generally committed to maintaining stable international prices, and so recent currency fluctuations have often added to the cost reduction pressures. More specifically, as the value of the yen rises relative to the value of the U.S. dollar and dollar prices are kept stable but costs in terms of U.S. dollars rise, Japanese firms place themselves in a position where they must reduce costs. By showing the price variable as isolated from all other competitive methods, the SSA, more clearly than the FA, emphasizes the distinctive role *pricing* plays in a Japanese strategic context.

In Figures 2b and 2c the methods contained in *broad overall positioning* separate into two clusters. Regions 1 and 2 encompass all the methods included in Factors 1 and 2 and are labeled *balanced* and *operational positioning*. Region 3 includes four of the five competitive methods that were contained in Factor 3 which was labeled *market positioning*. The other competitive method, 'emphasis placed on having strong influence over distribution' (9), is reabsorbed into the main cluster along with 'emphasis placed on having products in higher priced market segments' (19) one of the methods

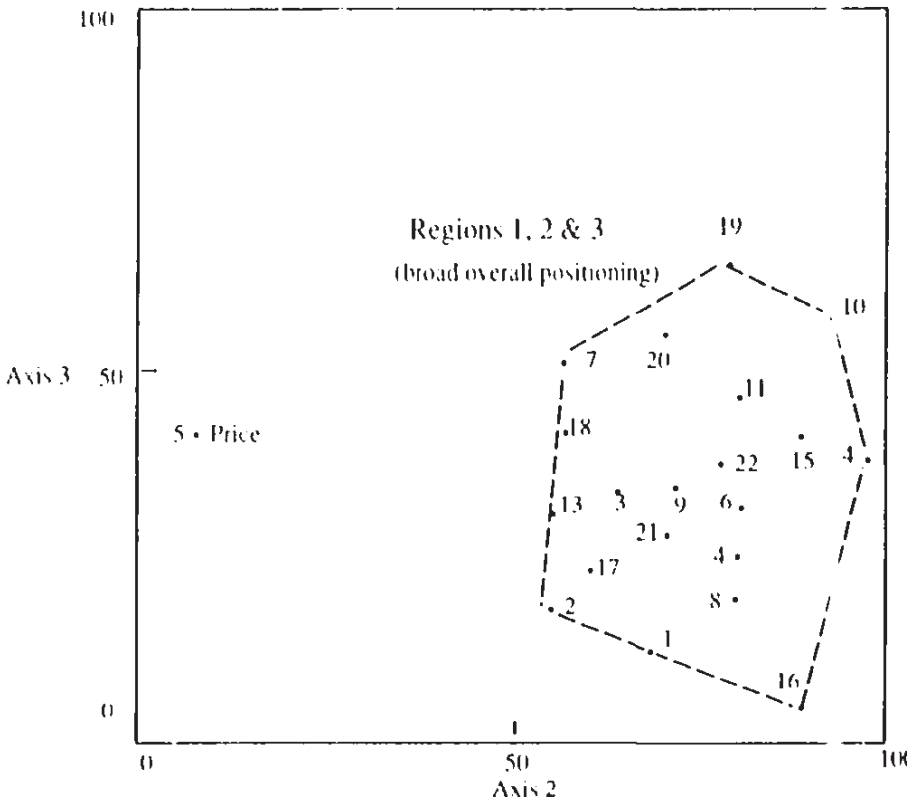

Figure 2a: SSA diagram for the Japanese sample
Axis 2 versus Axis 3

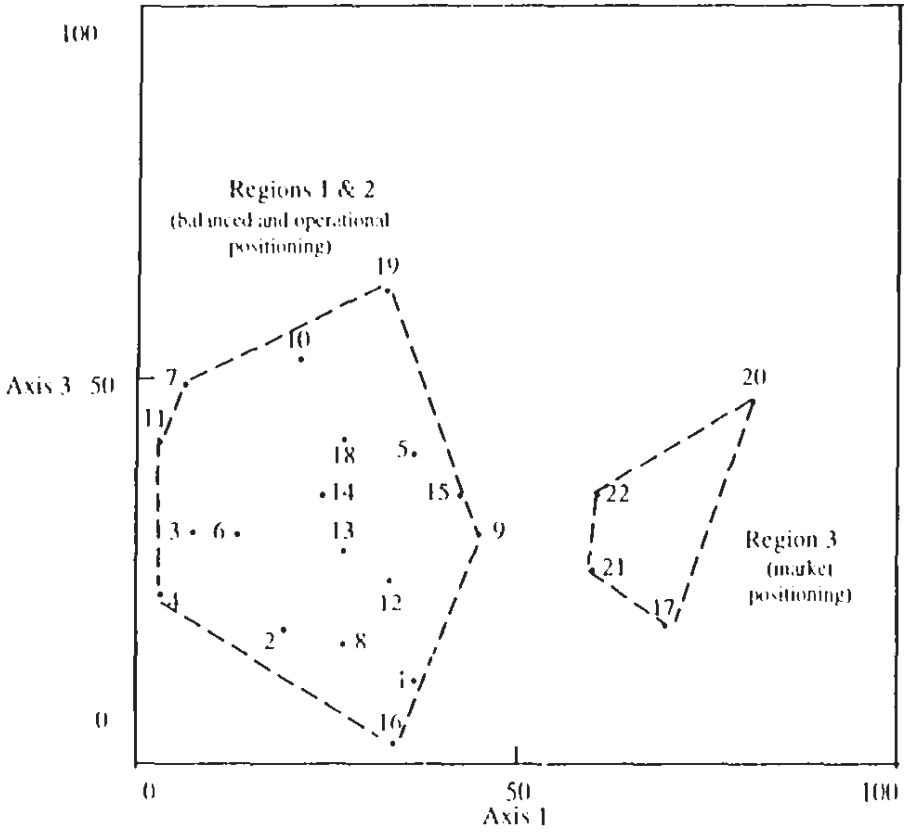

Figure 2b: SSA diagram for the Japanese sample
Axis 1 versus Axis 3

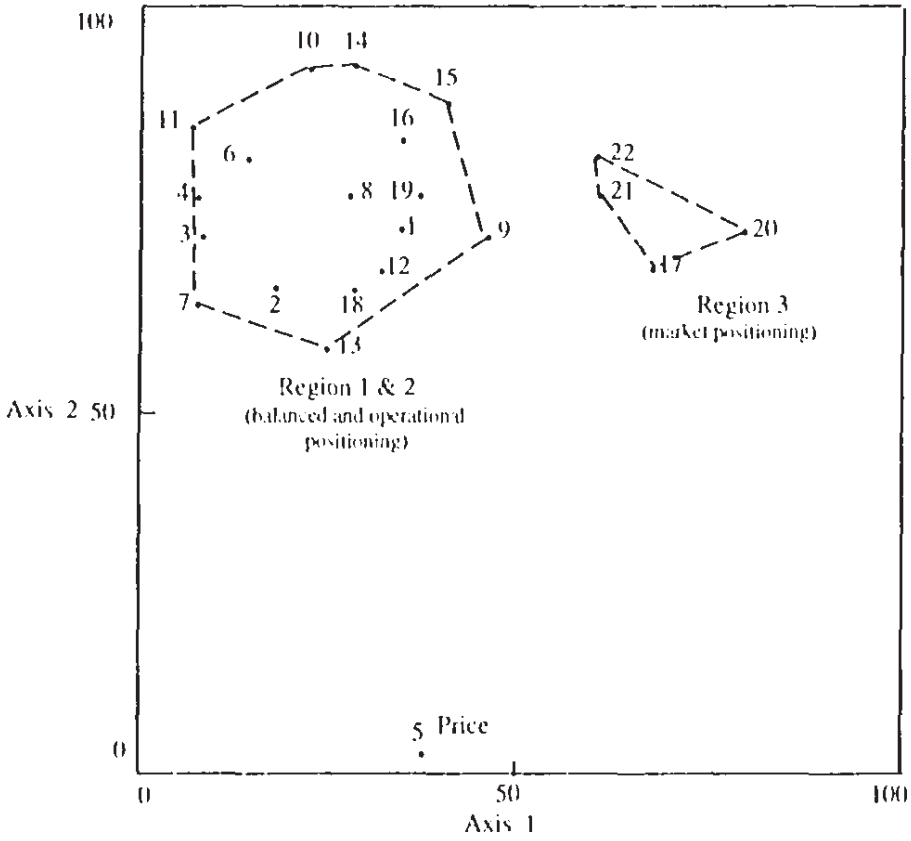

Figure 2c: SSA diagram for the Japanese sample
Axis 1 versus Axis 2

isolated as a separate factor in the FA. Overall, clusterings in the Japanese SSA seem more broadly defined and delineated than those in the American solution.

DISCUSSION

The purpose of our research was to find ways to identify and distinguish the emphases that U.S. and Japanese managers place on sets of competitive methods. Prior research has suggested both similarities and significant differences in the ways Japanese and U.S. managers approach strategic issues (e.g., Kagono *et al.*, 1985; De Meyer *et al.*, 1989). Our study confirms several similarities with regard to the competitive methods emphasized by U.S. and Japanese managers in their approaches to strategy. Additionally, it highlights differences that, while consistent with alternative underlying organizing principles, may lead to different types of action generation not previously discussed.

Means and t-tests results

The findings indicate that manageres from both Japan and the U.S. place great, but different emphasis on quality, quality controls, operating efficiency, cost reduction and customer service capabilities. First, U.S. managers concentrate their attention mainly on quality and operating efficiency issues as well as on building up their firm's reputation. In contrast, Japanese managers emphasize a much wider range of competitive methods than do their U.S. counterparts. By conceptualizing strategy broadly, Japanese managers signal their competitive priorities in future global competition. This is reflected in the observations of Mroczkowski and Hanaoka:

> For Japan, the era of competing on the basis of being the low cost imitator of the West and using exports to stimulate its domestic economy came to a dramatic end with the rise of the yen. Japanese companies reacted by shifting the competitive battleground to a different plane. They have moved up-market to compete on the basis of quality, innovation, and product leadership while defending their cost structures against NICs and Western competitors by rapid automation (1989: 39)

Second, U.S. managers favor high priced segments and the associated price and reputation requirements. In contrast, Japanese managers place more emphasis on new product development, product line breadth and cost position. These results are consistent with previous findings. For example, De Meyer *et al.* (1989: 137) showed that the two top priorities in U.S. manufacturing firms were the abilities to provide consistent quality and deliver high-performance products. In the case of Japan, 'the ability to have low cost production, is the Japanese objective number one. This is no recent phenomenon due to the increasing strength of the yen, but has consistently been top priority for the Japanese over the past 4 years' (p. 139). The Japanese focus on cost position is perhaps driven by the fact that manufacturing costs as a percentage of sales are highest for the Japanese when compared with the Americans and Europeans (De Meyer *et al.*, 1989).

Third, the Japanese emphasis on new product development and on offering a broad product line is an emerging focus and, perhaps, reflects the severe domestic competition in Japanese markets where new product introduction is essential just to maintain position. The Japanese are likely preparing for the next stage in global competition in which competitive advantage will be based on technological (i.e., new product innovation), rather than manufacturing superiority (Ito and Pucik, 1993). U.S. managers should be concerned, since new product innovation has been an area of strength for U.S. firms.

The implications of these initial indications of similarity and difference become clearer as patterns in the FA and SSA solutions are interpreted and the differences between U.S. and Japanese firms, not commented upon in previous studies, become evident.

FA results

Consistent with U.S. strategy experts (e.g., Porter, 1980; Mintzberg, 1988), our general interpretation of the factor analytical results of U.S. firms is that the organizing principle underlying these responses is a desire to *differentiate* a firm from its competitors. In contrast, and consistent with Ohmae (1982), our general interpretation of the Japanese results is that the underlying organizing principle is the establishment of a *comprehensive, stable and defensible firm position*.

Seen in this light, the differences isolated by the *t*-tests become more understandable. As the organizing principle for U.S. managers is differentiation of their firms, managers can be expected to do what is necessary to achieve this goal and no more. Thus, U.S. managers emphasize a narrow range of competitive methods any one of which may be perceived as sufficient to differentiate. In contrast, the Japanese concentrate on building stable and defensible positions and, hence, emphasize a wide range of competitive methods. While such a strategic approach may not distinguish Japanese firms from one another, it may distinguish them *as a group* from U.S. firms. As a group, the Japanese firms emphasize a much broader range of competitive methods in their strategies.

SSA results

A comparison of the SSA helps to elaborate and clarify several points. First, the SSAs for the U.S. managers illustrate how easily different competitive methods are combined in ways that refocus attempts at differentiation. As well as a general emphasis on *quality*, for example, firms may emphasize *cost-constrained quality* or *quality and marketing*. As well as general *image*, firms may emphasize a *quality-based image*, *service-oriented image*, *price-based image or brand- and product-based image*. These competitive method regroupings in the several faces of the SSA suggest that the main source of complexity often attributed to strategies pursued by U.S. firms may come not so much from the diversity of competitive methods employed, but from how they are combined or recombined to define alternative, distinctive, meaningful efforts with respect to a differentiation focus. Given an underlying organizing principle of preference for differentiation, such recombinations make sense. The recognition that much of U.S. strategy formulation consists of finding new and creative ways of combining competitive methods suggests that U.S. managers, who view strategy development as an abstract game or intellectual exercise with the primary objective of doing something new or unusual, may be at a disadvantage. This is because the consequence of such an approach may be a long string of strategy fads and a continual search for new combinations as current approaches become obsolete. In other words, the U.S. orientation may make it substantially more difficult for U.S. firms to achieve a stable and sustainable competitive advantage over time.

Second, if the Japanese underlying organizing principle is to establish a stable and defensible strategic position, finding ways to differentiate is simply one means of contributing to an integrated package designed to serve customers more effectively than their competitors. As one manager of Sony Corporation of Japan put it, 'Our intent is to compete by creating a seamless link between raw materials at one end and customers at the other.' Our follow-up discussions with Japanese managers suggest they quite often think they encounter strategic confusion and ambiguity in their dealings with U.S. managers. They often simply take this for granted, accepting it as being 'the way American managers are.' Not used to less comprehensive ways of strategic thinking, they find that U.S. managers seem to have a narrow approach and, as a result, seem unclear as to their firms' strategic positions and exactly what this is trying to achieve. Given that Americans consider themselves direct and to the point, this Japanese perception of Americans may surprise many U.S. managers. However, the assessment is understandable when one compares the underlying organizing principles which distinguish U.S. and Japanese perceptual bases for strategic action generation.

Third, the SSA solution for the Japanese managers shows an emphasis on a broad, comprehensive and integrated approach. The consistency of patterns across the various faces of the SSA solution probably testify to the long-term perspectives that underlie Japanese approaches to firm strategy. Different competitive methods are concentrated in clearly definable regions, and the aim of the positioning is easily identifiable and understandable. This finding clarifies Burgelman's (1988) speculation that, because of the emphasis on centralized control in Japanese firms, the patterns of strategic emphasis seem more tightly coupled and integrated and new initiatives may be difficult to distinguish from established strategic trajectories.

Furthermore, Japanese managers may view environmental change as a threat while U.S. managers view the same change as an opportunity. While Sullivan and Nonaka (1988) use differential historical experiences associated with the respective cultures as a rationale for this difference, an

alternative explanation may be that the Japanese view such change as a threat because their emphasis is on building a strong and stable positioning for their firm, something that is clearly endangered by change. Conversely, U.S. managers may see change as an opportunity simply because it provides an occasion for new efforts at differentiation, something that they are doing and probably adjusting to anyway.

Fourth, the stability of the Japanese patterns indicates a more incremental approach to strategic adaptation. In Japanese firms, face-to-face communications and lower-to-higher communications among managers are both much more intensive and much more extensive relative to those in U.S. firms (Pascale, 1978). Incremental change, along with more information processing, suggests that strategy formulation and implementation are likely to be blurred (Jaeger and Baliga, 1985: 123), and such blurring may facilitate the execution of successful strategies (Ansoff, 1982). In the context of advanced manufacturing technologies introduced into Japanese and Western firms, prior research has found that Japanese firms are better at the implementation of these technologies (Jaikumar, 1986). A broad based incremental approach focused on maintaining stability stresses both formulation and implementation simultaneously. In contrast, U.S. organizing principles that emphasize ways to differentiate would be likely to seem to stress strategy formulation at the expense of strategy implementation.

Finally, by focusing on multiple ways to differentiate, U.S. managers approach strategy as described and 'packaged' by the nation's top business schools (Baba, 1989). Strategy is viewed as a top-down driven, analytical process where the 'problem' gets divided into various constituent parts and an elite top management group is given the responsibility to find one 'best' solution (cf. Mintzberg's (1990) comments on the 'design' school approach to strategy). Depending upon the mode of differentiation sought, the top manager with the right functional specialization is responsible for formulating and implementing strategy. Such an approach is termed *strategic segmentalism* (Imai *et al.*, 1985). Not surprisingly, the result is a strategy articulated from a narrow specialized perspective (i.e., a particular mode of differentiation) often reflecting the specialized background of the top manager spearheading the process.

It is not clear that strategy, as it is understood in the U.S., is a meaningful concept in Japan. Yet to understand what is going on from a Western perspective, we inevitably make comparisons with what we know. Thus, in contrast to strategic management practices in the U.S., Japanese strategic decision making is not concentrated only among top managers; lower level managers also actively contribute to corporate level decisions. Moreover, a strategy becomes effective only after consensus among the various managers, a process known as *ringi* (Hattori, 1978: 12). The more tightly coupled Japanese patterns signal a 'synthetic' or synthesizing approach that emphasizes the interrelations among the various methods. Relative to an analytical approach, a method that stresses synthesis reflects a broader and more holistic conceptualization of strategy. In other words, the results suggest that the Japanese are more inclusive and focus on a broader array of competitive methods relative to their American counterparts. Thus, any short-term changes in the emphases they place on different competitive methods are likely to be less pronounced, or even trivial from a U.S perspective. Consequently, U.S. managers may be tempted to ignore incremental adjustments in Japanese competitive methods when, in actuality, those are the very adjustments which strengthen and extend a Japanese firm's competitive position. This perhaps explains why Japanese firms in competition with one another are highly sensitive to minor changes by their rivals (Abegglen and Stalk, 1985).

Implications for strategic management

Perceptions of U.S. and Japanese managers reveal different underlying organizing principles leading to different understandings and interpretations of competitive strategy issues. If the above discussion, based on our results, is indeed true, then the competitive implications for U.S. managers are straightforward. First, identifying ways to differentiate onself is unlikely to lead to a significant sustainable competitive advantage because Japanese firms are advancing incrementally and on a broader front. Second, while the changes in Japanese approaches over the short-term may seem trivial, over long time periods, as the Japanese learn to balance conflicting

competitive methods better (e.g., low cost and high product variety), they are likely to become even more formidable competitors.

Third, U.S. stress on strategy formulation at the expense of implementation can have serious shortcomings when competing against the Japanese. In describing such poor linkages between formulation and implementation in U.S. firms, the Japanese strategy expert Kenichi Ohmae (1982: 226) evokes the metaphor of the human body to suggest 'that separation of muscle from the brain may well be the root cause of the vicious cycle of the decline in productivity and loss of international competitiveness in which U.S. industry seems to be caught.' This should be of serious concern to U.S. managers.

Fourth, different approches to organizing are likely to become increasingly important as U.S. and Japanese managers engage in strategic alliances or joint ventures, or as U.S. and Japanese managers work, respectively, in Japanese-based or U.S.-based firms. The U.S. approach centering on individuals and efforts at differentiation may well seem eccentric and fickle to the broadly-based Japanese whose approach to strategy focuses on building relative competitive position over the long term.

Suggestions for future research

The competitive methods used to compare U.S. and Japanese firms in this study have been extensively tested in the U.S. (cf. Dess and Davis, 1984). While these methods are also meaningful in a Japanese context, there may be other competitive methods that are also important. Two in particular have been noted elsewhere: R & D intensity and export orientation. Franko (1989) provides empirical data to suggest that the erosion of the world market share of U.S. firms during the decade of the 1970s is due in large measure to the greater R & D intensity and commitment on the part of Japanese and European competitors. More recently, and on another front, Ito and Pucik (1993: 71) argue that export orientation 'is a particularly appropriate measure for Japanese firms, where most international sales have been through exports, as opposed to offshore manufacturing.' This is important for Japanese firms that are not market leaders, because to expand, these firms have to circumvent barriers, such as distribution systems that are controlled domestically by leading Japanese firms. Circumvention is achieved by exporting abroad (Ito and Pucik, 1993; 62). In the U.S., because of the relative size of the domestic market and their parochial orientation, we expect U.S. firms to be less concerned about international exports. The results presented here indicate that Japanese firms are emphasizing innovation and new product development, suggesting that the relative difference with respect to R & D between the two nations is unlikely to be significant. These and other competitive methods should be included in future comparisons.

We have relied on cross-sectional data to isolate the *patterns* in strategy orientations in U.S. and Japanese firms across numerous industries. The nature of the data does not permit us to say whether such strategic patterns remain stable over time. Survey results from an empirical study of competitive priorities in manufacturing in U.S. and Japanese firms, collected annually over 4 years, however, reveal a remarkable stability in competitive priorities (cf. De Meyer *et al.*, 1989: 138). Several researchers have also noted that Japanese management practices are never static, but evolve through continual adjustments to new economic, social and competitive priorities (Mroczkowski and Hanaoka, 1989; Smothers, 1990). Still there has been little effort to systematically collect longitudinal data to determine if and how patterns may change. Further research using longitudinal data is sorely needed to examine the stability of strategic patterns over time.

Our study focuses on subtle differences in the perceptual orientations of U.S. and Japanese managers. We have implicitly assumed that perceptions of emphasis are linked to behavior because strategists' perceptions materially affect strategic choices (Reger and Huff, 1993). However, research also shows that perceptions are based on incomplete information, are biased, and may not readily incorporate evidence from a changing world. In other words, there may be slippage between perceptions and subsequent behavior. Hence, strategic management research can benefit from studies that link perceptual patterns to the 'realized' behavior of firms. We have shown that the patterns in emphasis underlying strategy are different between Japan and the U.S. The question then becomes to what

extent do 'emphasized' strategies differ from 'realized' strategies? We propose that the links between emphasized and realized behavior are stronger for Japanese firms than for U.S. firms. As mentioned earlier, face-to-face communications and lower-to-higher level communications among managers are more intensive and lower level managers actively participate in and contribute to strategy decisions in Japanese firms. Decisions become effective only after a consensus has been reached. This greater degree of connectedness is likely to ensure a tighter linkage between emphases and realized behavior.

The different organizing principles and action generating structures reported here may have a differential impact on firm level performance. However, relevant firm level performance is culturally defined. U.S. firms are highly interested in historical performance, and as noted earlier, the historical financial performance achieved by Japanese firms has been consistently inferior to that of U.S. firms (Kagono *et al.*, 1985). The emphasis in Japan is on growth rates and market share. Indeed, many Japanese firms have excelled in these dimensions (Abegglen and Stalk, 1985). Institutional and cultural differences are likely to ensure that short-term financial performance and profitability remain much more important to U.S. rather than Japanese firms. Nevertheless, it would still be useful to examine whether variations in patterns about the way strategy is understood differ significantly between firms that are superior performers and those that are poor performers within the context of each nation. We expect that patterns between superior and poor financial performers are likely to differ significantly in both contexts. However, differences in the patterns associated with various levels of financial performance are likely to be less pronounced in Japanese firms, where financial performance is traditionally a less important variable. Instead, in Japan different patterns might be associated with greater growth and market share performance.

CONCLUSION

The study raises several methodological issues as a result of the new insights gained from a comparison of the outputs of two different pattern identifying techniques—the FA and SSA solutions. As there is no single perfect pattern identification procedure, there are inevitably trade-offs that characterize and also distinguish the results of various techniques. Though certain limitations and differences between pattern identification techniques are often overlooked, in cross national research they may be particularly important. In the present study, for example, the visual presentation provided by the SSA better demonstrates the distinctiveness of the Japanese strategies. The SSA more effectively emphasizes both the instability and the meaningfulness of the instability implicit in the U.S. approach to differentiated strategies. For a different study, however, other techniques or combinations may be better. The lesson is that in the context of making international comparisons of managers and strategy making and where the aim is to identify similarities and differences, it is desirable to use a number of different pattern identifying procedures and consider the meaningfulness of the results obtained from each.

While the number of studies comparing Japanese and U.S. firms is steadily growing, very few studies attempt to highlight and discuss the subtler distinctions in policies and philosophies that truly separate the firms in these nations. This study is one among a few that, using data collected from managers in the field, identifies differences in emphasis and the patterns in these differences that distinguish U.S. and Japanese approaches to strategy. More studies are needed to uncover and highlight the different understandings and underlying organizing principles that managers of different nations use to both justify and guide their firms' strategic actions. In our opinion, such organizing principles can perhaps help predict failure and success of firms in the current competitive global environment.

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APPENDIX: AMERICAN DATA

Weak monotonicity coefficients matrix for small space analysis.
Strategy variables for American firms (N = 159)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
S1	100																					
S2	−4	100																				
S3	4	58	100																			
S4	41	44	27	100																		
S5	−6	35	27	8	100																	
S6	52	63	21	87	−19	100																
S7	3	−9	−11	−23	38	−34	100															
S8	31	10	14	28	33	26	39	100														
S9	34	23	9	39	20	32	29	65	100													
S10	4	29	11	36	47	11	21	31	29	100												
S11	32	61	29	55	20	66	8	23	11	35	100											
S12	23	34	9	37	17	56	18	38	39	27	50	100										
S13	47	28	30	49	−4	59	−9	26	12	27	60	47	100									
S14	6	−6	−24	5	27	12	34	14	22	25	−5	17	−14	100								
S15	41	34	16	26	8	56	3	32	12	11	37	44	34	15	100							
S16	48	40	32	44	21	48	−2	46	40	13	39	30	36	−12	43	100						
S17	15	−4	−7	16	38	23	35	59	34	16	23	31	10	33	44	52	100					
S18	8	15	3	13	19	30	27	30	1	5	26	12	38	13	46	32	45	100				
S19	39	15	−7	27	6	36	20	43	23	−13	23	31	24	1	41	28	36	58	100			
S20	0	4	5	13	19	11	31	15	16	15	27	39	10	17	16	19	33	34	30	100		
S21	10	30	4	16	40	30	36	52	44	37	28	38	21	33	32	57	73	47	37	45	100	
S22	23	25	11	27	16	49	8	43	13	30	23	48	37	11	44	38	40	38	41	7	49	100

JAPANESE DATA

Weak monotonicity coefficients matrix for small space analysis.

Strategy variables for Japanese firms (N = 123)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
S1	100																					
S2	69	100																				
S3	51	73	100																			
S4	40	67	67	100																		
S5	2	31	39	21	100																	
S6	74	57	76	82	14	100																
S7	55	48	47	41	21	66	100															
S8	78	56	57	59	22	70	64	100														
S9	63	60	56	43	40	42	49	65	100													
S10	36	37	48	47	12	64	61	48	65	100												
S11	30	61	73	63	9	73	61	46	39	63	100											
S12	82	68	50	73	25	70	51	76	69	46	43	100										
S13	52	60	51	74	32	64	42	59	56	61	46	74	100									
S14	56	34	59	60	−1	66	44	61	73	69	65	59	56	100								
S15	54	50	59	39	13	59	49	67	72	62	65	55	54	75	100							
S16	60	67	54	57	−2	52	28	71	64	37	32	67	52	54	74	100						
S17	47	39	31	25	24	18	44	55	55	26	39	53	40	48	50	47	100					
S18	63	60	59	47	34	60	58	63	67	46	66	72	69	53	55	49	42	100				
S19	47	47	49	43	3	60	30	42	35	47	55	52	51	54	55	35	27	64	100			
S20	31	16	24	20	11	9	0	30	50	28	11	38	24	20	45	37	50	32	60	100		
S21	57	42	32	33	18	33	30	53	71	38	23	58	43	47	58	52	84	45	32	69	100	
S22	52	32	31	36	13	42	25	30	66	50	46	53	51	59	50	39	69	47	39	49	84	100