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A CONSIDERATION ON MANAGEMENT STRATEGIC THEORY

By Takehiko FURIHATA*

I Introduction

In the business environment which is not only metamorphosed on a large scale but also seems to cherish hostility, it would be the most important decision in the business management to previously decide what business a firm should deal in and what result it will, if possible, hope to gain. In this regard, case of Ford and GM in the era between the beginning of this century and 1920's can be pointed out as old but well-known example. This case show that, if the above-mentioned decision —strategic decision— does not fit the contemporary social or environmental requirement, whatever the technology or management is excellent, the business management will be nothing other than fruitless effort and may lead to the fatality of the business¹⁾.

By the way, such behavior is nothing other than the planned behavior from the viewpoint of the management theory (the process theory —management theories different from this theory may be recognized.) In this sense, the importance of such behavior was indicated at the origination of management theory or by H. Fayol. However, the concrete development of long range planning was especially shown after

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1) In this regard, I had referred to "On the Transition of System Concepts in Business Management (2) —Re-examination Based on Case Studies—" by Furihata, *Keizai Ronso* (Economic Review) Vol. 108, No. 5. As for wider consideration on administrative effect of business strategy, we are able to referred to the book by Hofer and Schendel. (C.W. Hofer and D. Schendel, *Strategy Formation*, translated by Okumura, Sakakibara and Nonaka, Chikura Shobo, 1981, pp. 10-14.)

D.W. Ewing, *Long Range Planning for Management*, 1958, according to R.N. Paul et al.²⁾ and as many as thirty-six books on this subject had been written by 1978 according to R.J. Mockler³⁾.

Since issues of the future naturally arise in some degree in case corporate future desirable course and feature are considered (or strategic planning is concerned), strategic planning can be said to be long range planning in this sense. However, it should be noted that long range planning cannot be said to be strategic planning on the contrary.

Because, under turbulent environmental conditions⁴⁾, the traditional extrapolative approach in long range planning is not useful and expectation to strategic planning is growing a new, as shown obviously for example by B. Hedley et al.⁵⁾

Then, how is such strategic planning?

According to Hofer and Schendel, the first intelligent who, though suggestive, raised strategic issues is said to be P. Drucker (1954). These issues are answers to questions of what is our business and how it should be. The next pioneer who, though it is business historical, developed detailed analysis between strategy and organizations is A. Chandler (1962)⁶⁾.

While these pioneers performed attention to strategic issues, business historical analysis of the relation between strategy and organizations and other related studies, they would not logically and thoroughly grasp the thinking process of strategy itself. The proper development of such matter was left for H.I. Ansoff and K.R. Andrews⁷⁾.

Especially, Ansoff tried the logical development which is based upon the logic of proper strategic planning, that is, the logic that the business present position and preferable position are compared, considering three elements of the assessment of environmental tendency, analysis of business strength and weakness and recognition of business objectives, and the gap found therefrom, if any, will be compensated, and in which is used his own concepts such as the synergy effect, ability profiles, growth vectors as well as detailed charts of the so-called cascade approach. Such logical development by Ansoff has been highly appreciated as a typical pattern of the proper strategic theory which had scarcely been developed before then.

Up to now after then, many works have been published in the contents and form

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- 2) R.N. Paul, N.B. Donovan and J.W. Taylor, "The Reality Gap in Strategic Planning", *HBR*, May-June, 1978.
 - 3) R.J. Mockler, "Theory and Practice of Planning," *HBR*, March-April, 1979.
 - 4) F.E. Emery & E.L. Trist, "The Causal Texture of Organizational Environments", in J.G. Maurer ed., *Readings in Organization Theory: Open-System Approaches*, 1971; J.K. Galbraith, *The Age of Uncertainty*, 1977; P.F. Drucker, *Managing in Turbulent Times*, 1980.
 - 5) B. Hedley, "A Fundamental Approach to Strategy Development", *Long Range Planning*, Dec., 1976, p. 2; L.V. Gerstner Jr., "Can Strategic Planning Pay Off", *Business Horizons*, Dec., 1972, p. 6; F.W. Gluck, S.P. Kaufman & A.S. Walleck, "Strategic Management for Competitive Advantage", *HBR*, July-Aug., 1980.
 - 6) Hofer and Schendel, *translation*, p. 20.
 - 7) K.R. Andrews, *The Concept of Corporate Strategy*, 1971; H.I. Ansoff, *Corporate Strategy*, 1965.

which complete, enrich and more develop Ansoff's achievements. The following are representative works which:

- (1) deal with contents of strategy (by so-called "content" approach): R.P. Rumelt, *Strategy, Structure, and Economic Performance*, 1974; Boston Consulting Group, *Perspectives on Experience*, 1968; and Reports of the PIMS project (as stated later), for example, R.D. Buzzel, B.T. Gale, and R.G.M. Sultan, "Market Share: A Key to Profitability," *HBR*, Jan.-Feb., 1973, etc.;
- (2) maintain the necessity of discussing corporate strategy with discrimination of organizational levels such as corporate and divisional levels: R.F. Vancil and P. Lorange, "Strategic Planning in Diversified Companies," *HBR*, Jan.-Feb., 1975;
- (3) try case studies of strategy: C.W. Hofer, "Some Preliminary Research on Patterns of Strategic Behavior," *Academy of Management Proceedings*, 1973; W.F. Glueck, *Business Policy: Strategy Formation and Management Action*, 1976;
- (4) consider strategy formation process from the relation with diversification, procurement, multinationalization, etc: N. Berg, "Strategic Planning in Conglomerate Companies" *HBR*, 1965, 42; E.E. Carter, "The Behavioral Theory of the Firm and Top Level Corporate Decisions," *Administrative Science Quarterly*, 1971, 16(4); J.M. Stopford and L.T. Wells, *Managing the Multinational Enterprise*, 1972;
- (5) evolve minutely competition strategy by industrial categories which has rarely been referred to up to now: M.E. Porter, *Competitive Strategy*, 1980;
- (6) attempt all-round development of strategy including the above-mentioned products: C.W. Hofer and D. Schendel, *Strategy Formulation: Analytical Concepts*, 1978;
- (7) aim at integrated strategic theory with management theory from mere planning theory: H.I. Ansoff, *Strategic Management*, 1978.

Stimulated by such tendency in Japan, much literature including translation from, commentary on and reference to these works have been published as concerned in the strategy theory.

Referring to Ansoff et al. and relying on Gilmore and Brandenburg for the framework, we also discussed on the strategy theory in the work to review the management process theory anew from the viewpoint of system theory in 1970⁸⁾. If new development of related studies after then is as stated above, such work as we tried in the field of organization theory⁹⁾ has become necessary also for completion, amplification and development of our work in the field of strategy theory.

Then, what should the new attempt of reference comprise? Since the development of new strategic theory comprises considerably variegated elements as clearly stated above, the reference to the strategic theory should also be variegated as a matter

8) Furihata, *New Development of Management Process Theory*, Japan Productivity Center, 1970, pp. 86-110.

9) *Business Organization and Environmental Adaptation*, compiled and written by Furihata and Akaoka, Dobunkan, 1978.

of course. For example, such reference includes systematic re-grasping of the strategic theory as the logical process based on the survey of recent major works as mentioned and, with close relation to the above, clarification of the meaning of contents, technique and concepts of the strategic theory developed recently. Further, suppose that not only Ansoff but also Gluck and Cauwenbergh and their comrades began to advance that the strategic theory at this stage should be transferred from strategic planning to strategic management upon understanding the historical growth of strategic theory¹⁰⁾. If this strategic theory consists of fusion between strategic planning and management taking organization into consideration, it can be considered that, aside from more concrete development of the theory, there may be contingency approach to the strategic theory with relation to it. While major development of the strategic theory is not beyond the general systematic description of logical process, that is, normative contents in that meaning, it is thought that there may be so-called behavioral scientific approach if the strategic theory is nothing but behavior through the medium of human group. In conclusion, today is said to be the age of environment which not only change on a large scale but also contain hostility and, if so, diversified behavior to manipulate environment against such trend may be evolved as a link in a chain of strategic behavior.

While I have enumerated at random various issues on management strategic theory, the following series of studies titled "An Consideration on Business Strategic Theory," taking into account of the recent trend of strategic theory laying stress on contents of strategies, begin with clarification of the second issue of these issues, that is, meaning of the Experience Curve Effect proposed by the Boston Consulting Group (BCG), the Profit Impact of Market Strategies (PIMS) Project developed by Harvard University and Marketing Science Institute and the Product Portfolio Approach (PPA) as the second doctrine by BCG, which attract the special attention as contents, techniques and concepts of strategic theories recently developed. This paper deals with the first two methods and the portfolio approach will be considered in the sequel hereto.

II Presentation (1)

The Experience Curve Effect, PIMS and PPA, which attract the attention as contents of strategic theories recently developed, are referred to by not a few works¹¹⁾. Now, this paper at first deals with issues relating to the Experience Curve Effect which B. Hedley, a director of Boston Consulting Group in London which is the common originator of such work, attached importance to in 1976 as strategy at business levels

10) F.W. Gluck, S.P. Kaufman and A.S. Walleck, "Strategic Management for Competitive Advantage", *HBR*, July-Aug., 1980; A.D. Cauwenbergh and K. Cool, "Strategic Management in a New Framework", *Strategic Management Journal*, Vol. 3, 1982.

11) C.W. Hofer & D. Schendel, *translation*, pp. 36-41, 147-152; *Modern Corporate Strategy* edited by Moriaki Tsuchiya, pp. 18-20, 59-84, Yuhi-kaku (1982); etc.

from among those works which he referred to as the two basic approaches of management strategies in 1976 and 1977 issues of the management journal, *Long Range Planning*.

Hedley maintained that success in the most basic and long range strategy in individual business units within corporations depend upon lower levels of production costs of a particular product and distribution costs to related markets than those of competitive enterprises and this is naturally connected excellent profitability. By the way, the Boston Consulting Group found, based on comprehensive studies, that it can be applied to the total cost involved in manufacturing, distributing and selling a product, not restricted to labor costs that labor input necessary for manufacturing any product tends to decrease regularly according to growth of accumulated production—that is originally called the learning curve effect¹²⁾. In other words, this is expressed by a sentence that “Each time the accumulated experience of manufacturing a particular products doubles, the total unit cost in real terms, can be made to decline by a characteristic percentage. The decline is normally in the region of 20–30 per cent”¹³⁾ and this is usually called the experience curve of its effect.

We can find many factors to produce such experience curve effect. Examples of such factors are: (1) productivity improvement due to technological change and/or “learning” effects leading to adoption of new production methods, (2) economies of scale and of specialization, (3) displacement of less efficient factors of production, especially investment for cost reduction and capital-for-labor substitution, (4) modifications and redesign of product for lower costs.

For the present purpose, however, strategic meaning of this experience curve come into question and consideration of cost reduction factors does not matter on this occasion. The reason is that impossibility of cost reduction along the experience curve leads the business unit to non-competitive cost position and, contrastingly, the business unit with the largest market share or the business unit with the greatest accumulated experience should have the lowest cost and the highest profitability. Especially, the second point, that is, the relation between market share and profitability is being ascertained by the recent Profit Impact of Market Strategies (PIMS) studies. An illustration on this analysis given by Hedley is as shown in Fig. 1¹⁴⁾. Many similar examples are illustrated and described for different types of industries in the same treatise by Hedley, in which example of relation between sales (reflecting market share) and profitability (profit sales ratio) in the U.K. Cellophane Industry is shown in Table 1¹⁵⁾.

However, such relation between market share and profitability as shown in Table 2 is different from the above case¹⁶⁾. In this table, the sales of British Leyland re-

12) As for learning curves, refer to Furihata, *op. cit.*, p. 279.

13) B. Hedley, “A Fundamental Approach to Strategy Development”, *Long Range Planning*, Dec., 1976, p. 3.

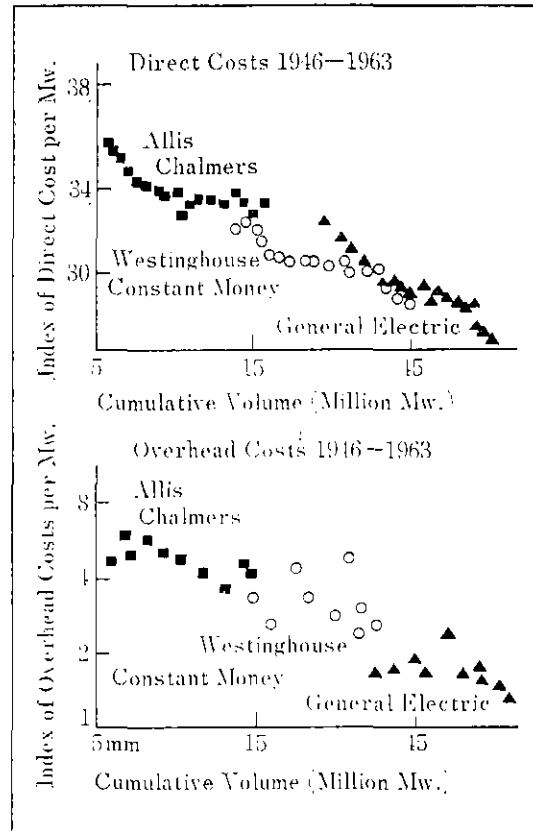
14) *ibid.*, p. 8.

15) *ibid.*, p. 8.

16) *ibid.*, p. 9.

cords nearly twice as much as those of Ford, but Leyland is inferior to Ford in profitability. This is caused by the fact that British Leyland has multi-production lines for 19 types of products while Ford's production concentrates on four types. In other words, Ford has much larger production scale for a basic model car type than British Leyland, and the experience curve effect emerges not in British Leyland but in Ford. Therefore, this clarifies that the relation between market share and profitability is not shown by the total sales and profitability of a particular corporation. For example, the production scale, sales or market share for basic model car types or in segmented business units in the automobile industry becomes an issue. Of course, a corporation such as GM in case of the American automobile industry holds the leading place both in the total production and production by segmented basic model car types as shown in Table 3¹⁷⁾ and profitability in the American

Fig. 1. U.S. Steam Turbine Generators: Competitive Cost Comparison.



Source: Antitrust Hearings.

Table 1. The U.K. Cellophane Industry

	1970/1971		1972/1973	
	Sales (£ m.)	PBIT/Sales (%)	Sales (£ m.)	PBIT/Sales (%)
British Cellophane	41	10.0	68	14.9
British Sidac	15	3.1	19	7.5
Transparent Paper	8	(2.1)	11	5.6

Table 2. British Motor Industry

	Average 1970-73	
	Sales (£ m.)	Profit/Sales (%)
British Leyland	1261	4.1
Ford (U.K.)	716	4.8
Vauxhall	262	0.3
Chrysler (U.K.)	249	0.6

17) *ibid.*, p. 10.

Table 3. U.S. Car Manufacturers: Volume by Model (1974)

	Total Volume	Base Body Types		Engine Types	
		No. Offered	Volume per Type	No. Offered	Volume per Type
GM	4,440	6	740	4	1,110
Ford	2,300	5	460	4	580
Chrysler	1,270	4	320	3	420
American Motors	260	4	65	2	130

automobile industry is as shown in Fig. 2¹⁸⁾. Nothing excels this method in the strategic issue relating to the relation between market share and profitability.

III Verification of Experience Curve Effect—On PIMS Study Project

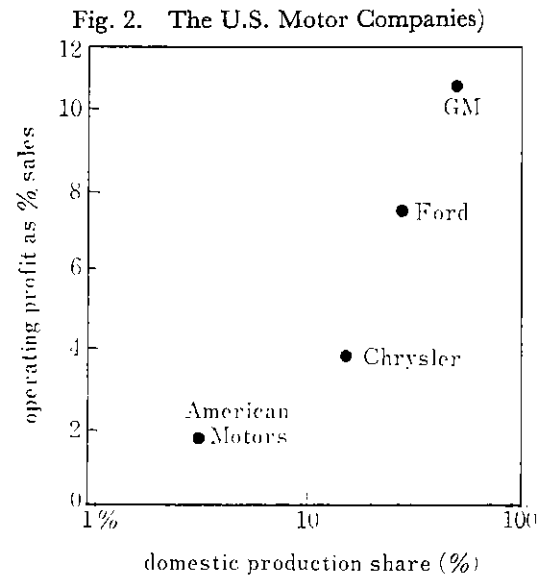
It is as mentioned above that one of Hedley's opinions and therefore opinions or presentations is an issue of strategic development based on the experience curve effect on business levels or more concretely an issue of consideration on the relation between market share and profitability in the market. By the way, a study project which had been performed by GE with a similar sense of problems since 1960 was formally inaugurated in 1972 as the so-called Profit Impact of Market Strategies (PIMS) project sponsored jointly by Harvard University and Marketing Science Institute¹⁹⁾. Results of this study were then reported in *Harvard Business Review*, etc. by Schoeffler and Buzzell and their co-workers. We will hereinafter trace analysis by Schoeffler and his co-worker.

S. Schoeffler and his co-workers made analysis on the relation between profitability and three corporate factors consisting of market share, investment intensity and corporate factors based on data from 620 divisions of 57 corporations between 1970 and 1972.

Table 4²⁰⁾ shows the distribution of object divisions by types.

(1) Market share

The relation between market share and profitability in these divisions is shown in Fig. 3²¹⁾. In this figure, rates of return on investment (ROI) rise sharply as market



18) *ibid.*, p. 9.

19) S. Schoeffler, R.D. Buzzell and I.F. Heary, "Impact of Strategic Planning on Profit Performance", *HBR*, March-April, 1974, pp. 138-139.

20) *ibid.*, p. 140.

21) *ibid.*, p. 141.

Table 4. PIMS sample of individual business

Number of companies	57
Number of business	620
Type of company:	percentage to total
Consumer product manufacturer	19.8
Capital equipment manufacturer	15.6
Raw material producers	11.9
Components manufacturers	24.1
Supplies manufacturers	16.5
Services and distribution industries	12.1
Total	100%

share grows.

Then, what influence do factors other than market share give to ROI together with market share? Table 5²²⁾ shows influence of market share and quality upon ROI. As clear from this table, ROI in case of high market share and high quality marks 28.3 which is the highest of all data. While corporations with high market share record 19.5% of ROI even in case of relatively inferior quality, corporations with low market share which are not more than 12% record only 17.4% of ROI irrespective of high quality. This shows power of market share in the meaning that high quality does not compensate weakness in market shares.

Table 6²³⁾ shows impact of expenditures on product quality and market share. Part A of the table shows how degree of quality and ratios of marketing expenditures to sales influence on ROI. In other words, this part shows that there exists strong negative correlation between marketing expenditures and ROI in case of low quality.

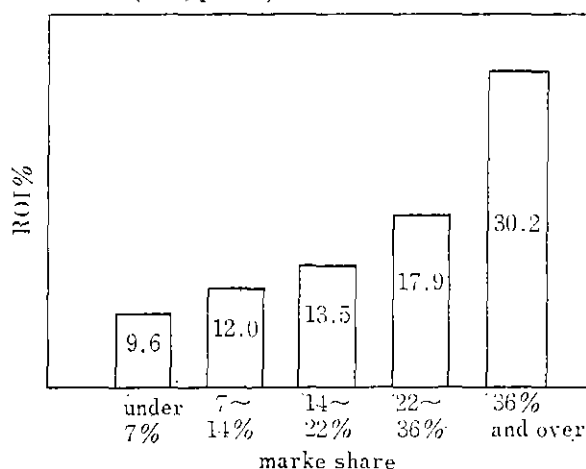
Fig. 3. Relation of Market Share to Profitability
(*ibid.*, p. 141)

Table 5. Effect of market share and quality on ROI

Market share	Product quality		
	inferior	average	superior
under 12%	4.5%	10.4%	17.4%
12~26%	11.0	18.1	18.1
Over 26%	19.5	21.9	28.3

22) *ibid.*, p. 141.

23) *ibid.*, p. 142.

Table 6. Impact of expenditures on product quality and market share

A. High marketing expenditures damage profitability when quality is low.

Product quality	Ratio of marketing expenditures to sales		
	Low under 6%	Average 6~11%	High over 11%
Inferior	15.4%	14.8%	2.7%
Average	17.8	16.7	17.0
Superior	25.2	23.1	26.3

B. High R&D spending hurts profitability when position is weak but increases ROI when market share is high

Market shares	Ratio of R & D costs to sales		
	Low under 1.4%	Average 1.4~3%	High over 3%
under 12%	11.4%	9.8%	4.9%
12~26%	13.8	16.7	17.0
Over 26%	22.3	23.1	26.3

This confirms an old saying "it doesn't to promote a poor product." Further, ROI decreases more or less also in divisions belonging to the average or high quality category as marketing expenditures rise. However, this tendency is not so remarkable as in enterprises belonging to the low quality. This suggests that divisions belonging to the high quality category can impose severe short-term penalties on weaker competitive divisions by raising the level of marketing expenditures and that low quality divisions should avoid such confrontation.

Part B of this table shows that ROI becomes the highest when market share are high and besides ratios of R&D spending to sales are high (3% or more). Of course, these figures do not indicate causality, but divisions recording high profitability probably tend to re-invest much of their profits to R&D activities. In case of low market share, the relation between R&D spending and profitability is quite reverse to divisions with high market share. More concretely, the higher the level of R&D spending is, the lower ROI is. However, it must be emphasized that these data are short-term effects for only three years. This is because there has been cases where ROI becomes higher, when R&D spending in such period has well linked with realization of new products and their ratios to sales are high. In these cases, R&D spending can be said to be transitional cost for innovation. However, the most profitable method for divisions with weaker market position would be a method to produce new products without R&D investment—for example, imitation.

(2) Investment intensity

What is identified as a factor to exert influence on profitability next to market share is investment intensity (investment/sales).

Fig. 4 shows the relation of investment intensity to profitability²⁴⁾. In this figure, there is tendency that higher investment intensity causes lower ROI. In other words, divisions with high investment intensity cannot raise profits enough to compensate the investment. The reason of these circumstances includes industrial character requiring high requiring high investment.

Table 7²⁵⁾ shows the relation of low market share and high investment intensity to profitability. In this table, ROI of divisions with high market share and low investment intensity is 34.6%, which is 17 times as profitable as that of divisions with low market share and high investment intensity. By the way, the basic level of investment intensity of a particular division is often out of control of management, and the amount of capital to support a particular sales is mainly decided by technical conditions or traditional trade terms. In many cases, however, some choice to exert influence on investment intensity can be made by manager. Mechanization and computer utilization are example of these cases. The above data indicate that such kind of investment should deliberately be controlled in case of weak market position.

Fig. 4. Relationship of investment intensity to profitability

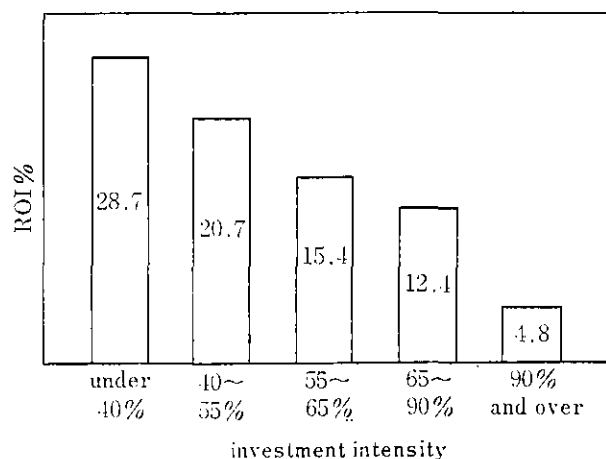


Table 7. Low market share plus high investment intensity equals disaster

Investment intensity	Market share		
	Under 12%	12~26%	Over 26%
Under 45%	21.2%	25.9%	34.6%
45~71%	8.6	13.1	26.2
Over 71%	2.0	6.7	15.7

Then, what can management do other than the above. Table 8²⁶⁾ shows the relation of investment intensity and marketing expenditures to ROI. As for divisions belonging to the highest investment intensity category, there is shown a strong negative correlation between levels of marketing expenditures and ROI. On the other hand, this relation as for divisions with low investment intensity is different from the above. That is to say, suitable ratios of marketing expenditures to sales give higher profitability than low ratios.

24) *ibid.*, p. 143.

25) *ibid.*, p. 143.

26) *ibid.*, p. 143.

Table 8. High marketing expenditures damage ROI in investment intensive business

Investment intensity	Ratio of marketing expenditures to sales		
	Under 6%	6~11%	Over 11%
Under 45%	26.3%	31.7%	22.0%
45~71%	17.6	13.2	18.3
Over 71%	10.9	10.1	3.9

(3) Corporate factors

The third factor on profitability is characteristics of parent companies which own respective divisions.

Table 9²⁷⁾ shows the relation of scale of parent companies and degree of their diversity of business to ROI.

Table 9. ROI varies with size and diversity of parent company

	Total company sales (in millions)		
	Low under \$750	Average \$750~1,500	High Over \$1,500
Average ROI	15.8%	12.5%	21.7%
	Degree of diversity		
	low	average	high
Average ROI	16.1%	12.9%	22.1%

In relation to the scale, the largest scale companies mark the highest ROI and average scale companies the lowest ROI. The reason of such relation would be that the largest companies benefit from economies of scale and small companies gain some advantages from greater flexibility.

In relation to the diversity, highly diversified companies mark the highest ROI and low diversified companies follow them, similarly to the case of scale. This suggests that the former enjoy merit of generalists and the latter exploit advantage of specialization.

Table 10²⁸⁾ shows the relation of corporate scale and market share to ROI. It is obvious from this table that large companies gain benefit thanks to their strong market position more than small companies. The reason of this characteristic would be that large companies can provide adequate support for strong market positions, in terms of management personnel and fund for marketing or R&D expenses, etc.

On the other hand, small companies mark better profitability than large companies with low market share. Maybe, this would be caused by flexibility of small companies.

27) *ibid.*, p. 144.

28) *ibid.*, p. 144.

Table 10. Large companies benefit most from strong market positions

Company sales (in million)	Market shares		
	Under 12%	12~26%	Over 26%
Under \$750	14.5%	13.7%	19.6%
\$750~\$1,500	6.8	15.0	25.0
Over \$1,500	12.0	17.3	29.4

IV High Market Share Strategy

Hedley's first doctrine which we earlier adopted in Presentation (1) (and this is nothing but BCG's doctrine) or the Experience Curve Effect is verified by the PIMS project as obvious through analysis by Schoeffler and his associates. The results have been generalized as logic of high market share followed by high profitability²⁹⁾ as pointed out again by Buzzell and his associates who are also members of the PIMS project. This naturally seems to logically lead to the strategy of high market share for business enterprises which should pursue profitability. Is this really true? On this issue, we would listen to W.K. Hall's theory in "Survival Strategies in a Hostile Environment," *HBR*, Sept.-Oct. 1980.

A. On Hall's analysis

Hall analyzed that American business environment was aggravated very much owing to various circumstances in 1970's and foresaw that such tendency would not change thereafter. Under such foresight, he tried research studies on eight company for each of eight major industries (iron and steel, tire and rubber, heavy-duty trucks, construction and material handling machines, automobile, home electric appliance, beer, tobacco), totaling 64 companies, in order to clarify survival strategies in such a hostile environment.

Hall surveyed growth rates of demand in these matured industries from 1950 through 1980 and their growth rate of profits from 1975 through 1979. Then, he compared the former with the average growth rate of GNP and the latter with the average data of 1,000 companies selected by Fortune, and proved that the average value of these eight industries is lower than each of these two kinds of data³⁰⁾. Each of these results is nothing but a maturity phenomenon and implies all-around aggravation of environmental conditions. Nevertheless, he found that some of these companies are not only alive but rather prosperous and clarified the following three (six in his article) points as results of comparative examination of their strategies³¹⁾.

(1) Successful strategies have the following common characteristics:

a) To achieve the lowest delivered cost position relative to competition, coupled

29) R.D. Buzzell, B.T. Gale and R.G.M. Sultan, "Market Share —A Key to Profitability", *HBR*, Jan.-Feb., 1975, pp. 97-98.

30) W.K. Hall, "Survival Strategies in a Hostile Environment," *HBR*, Sept.-Oct., 1980, p. 77.

31) *ibid.*, pp. 78-83.

with both an acceptable delivered quality and pricing policy to gain profitable volume and market share growth.

- b) To achieve the highest product/service/quality differentiated position relative to competition, coupled with both an acceptable delivered cost structure and a pricing policy to gain margin sufficient to fund reinvestment in product/service differentiation.
- (2) Successful strategies come from purposeful moves to leadership position, which are excellent differentiation to justify the lowest cost and/or price as mentioned above, and avoid simplistic adherence to strategy formation come from native application of the following methods:
- a) Share/growth matrix —the planning models which suggest that mature market should be “milked” for cash flows.
 - b) Experience curve and PIMS —the planning models which suggest that high market share and/or the lowest cost, vertically integrated production are key to success in mature markets.
- (3) For a deteriorating position, diversity may not be the proper recovery approach.

The above are a summary of strategies of successful companies in the matured industries mentioned by Hall. Especially, it should be noted that he made a counterargument against the experience curve effect proposed by Hedley or BCG and the theory of PIMS, which we have hereinbefore reviewed. In other words, Hall maintained, against the contention of high profitability through low costs induced by high market share or high degree of vertical integration, that sustainable return be obtained from highly differentiated position under average costs (not under low costs), and that such profits can be obtained from investment to modern automated process technology or rational distribution systems also under low costs (not by high market share or high degree of vertical integration), and further that advantageous status of successful companies can be held through selective integration into high value-added, proprietary componentry and investment generating the most efficient process technology in at least one selective stage of the vertical chain.³²⁾

This means that an influential counterargument against high market share strategies supposed from the theories by BCG and PIMS was raised from results of research studies. Really, it cannot be negated that the experience curve effect tends to be effective in case of high market share. Considering that low costs are not realized as direct and automatic results of high market share and the advantageous status can be held also through substitutes of differentiation, price policies and vertical integration as obvious in Hall's presentation, Hall's such counterargument should be agreed as a matter of course.

B. Other comments on BCG/PIMS

On theory of high profitability induced by high market share which is doctrines

32) *ibid.*, pp. 81–82.

of BCG or PIMS, there exist various references by many authors other than Hall, two or three points of which are hereunder introduced.

(1) After referring to the summary of his portfolio plan, G.S. Day indicated some points at issue and said "All the competitors are assumed to have the same overhead structures and experience curve corresponding to their market share position. Hence market share dominance is a proxy for relative profit performance (e.g., GM vs. Chrysler)....."

The influence of market share is most apparent with high value-added products, where there are significant barriers to entry and the competition consists of a few, large, diversified corporations with the attendant large overheads (e.g., plastics, major appliances, automobiles, and semi-conductors). But even in these industrial environments there are distortions under conditions such as:

- 1) One competitor has a significant technological advantage which can be protected and used to establish a steeper cost reduction/experience curve.
- 2) The principal component of the product is produced by supplier who has an inherent cost advantage because of an integrated process —such as the product concerning oil refinery process.
- 3) Competitors can economically gain large amounts of experience through acquisitions etc.
- 4) Profitability is highly sensitive to the rate of capacity utilization, regardless of size of plant.

He further said, "It is proved from results of PIMS studies that value of market share in production goods is not so important as in consumption goods".³³⁾

(2) Y. Wind and V. Mahajan similarly said in the process with reference to design issues of portfolio programs, "The PIMS project, which examines the correlates of profitability in the modern corporation, found business with large market shares to be more profitable than those with small shares.

This correlation is not perfect, however, and its causes are not completely understood. Is it due to the benefits of the learning curve, with respect to both product and marketing economies of scale for large-share products compete on nonprice basis and hence command higher margins and profits.

Moreover, studies of industries—for example, brewers and banks— have contradicted the positive relationship between share and profitability found by PIMS."³⁴⁾ Besides, other criticism of doctrine of BCG and PIMS is found, for example, in B. Taylor "Managing the Process of Corporate Development," *Long Range Planning*, June, 1976 and R. Wensley, "PIMS and BCG: New Horizons or False Dawn?", *Strategic Management Journal*, Vol. 3, 1982.

C. Management of market share

It can be said that such counterarguments against doctrine of BCG and PIMS

33) G.S. Day, "Diagnosing the Product Portfolio", *Journal of Marketing*, April, 1977, pp. 31-32.

34) Y. Wind and V. Mahajan, "Designing Product and Business Portfolio", *HBR*, Jan.-Feb., 1981, p. 161.

are naturally connected with counterarguments against high market share strategy. A pretty large number of remarkable arguments on this point are found in a category of so to speak market share management. We will hereinafter review such arguments.

As extension of PIMS studies, Buzzel and Wiersema proved, if high market share lead to high ROI, how high market share are obtained by considering analysis of changes in market share or case studies of more than 1200 businesses attending the PIMS project. In their studies, effect on market share of development and introduction of new products, improvement of quality, marketing expenditures (marketing ability, media, advertisement, sales promotion, etc.) and prices is considered and the study results are as shown in Tables 11–13³⁵⁾.

Table 11. Level of new products activity and change in market share

Percentage of new products to sales in relation to competing enterprises	Rate of change in share		
	consumption goods	materials	production goods
Beginning of period			
few	0.0%	−2.5%	1.5%
same	2.4	0.1	2.2
many	1.9	3.7	4.5
Change in period			
decrease	−1.4	1.0	3.4
same	2.2	0.2	2.4
increase	2.8	2.7	2.9

Table 12. Improvement of quality and change in market share

Change in relative quality	Rate of change in market share		
	consumption goods	material	production goods
decline	2.1	−0.9	0.7
no change	0.1	0.8	2.5
improvement	4.0	2.1	4.3

From these data, it is obvious that, although there exists difference of grade by business types, increase or improvement of the above-mentioned factors respectively contributes to increase of market share. On the other hand, it is reported that price factors (price reduction) are no more effective means in matured market³⁶⁾. In conclusion, they represent from such consideration the following guidelines:

(1) Successful share raising strategies consist of combination of the above-mentioned several factors; and

35) R.D. Buzzell and F.D. Wiersema, "Successful Sharebuilding Strategies," *HBR.*, p. 139, p. 140, p. 141.

36) *ibid.*, p. 142.

Table 13. Change in expenditures for salesmen, advertisement, sales promotion, etc. and market share

Rate of change in expenses coordinated for market growth	Rate of change in market shares		
	consumption goods	material	production goods
Salesmen			
decline more than 5%	-3.0	-0.9	-2.8
stable ($\pm 5\%$)	-0.6	1.1	+0.7
increase more than 5%	6.6	1.3	6.4
Advertisement			
decline more than 5%	-0.0	1.9	0.8
stable ($\pm 5\%$)	1.9	0.2	3.3
increase more than 5%	3.0	1.4	3.2
Sales promotion			
decline more than 5%	-0.2	-2.3	0.4
stable ($\pm 5\%$)	-0.5	0.9	2.7
increase more than 5%	3.7	1.9	4.2

(2) Most successful share raising strategies basically lay emphasis on more than one segment within the market³⁷⁾.

While Buzzel and Wiersema contend as mentioned above on market share raising strategies, W.E. Fruhan Jr. enumerates as issues to take note on the occasion of battle for raising market share the following: (1) whether there are financial resources enough to obtain preferable market share; (2) whether a company is in a position to survive even if attainment of its objectives is obstructed, for example, by anti-trust policy until its shares reach preferable score; and (3) whether regulatory authorities of the government (national or local) permit its activity toward share raising objective. Then, he considers on research instance of every item as mentioned above. For example, item (1) is the case of main frame computer industry. While GE and RCA could not comply with a request of necessary financial resources, IBM won the race. There is IBM's situation minutely analyzed³⁸⁾. Item (2) is the case of retail groceries. While National Tea, which first established bases in many urban market and then adopted the strategy to obtain share in each of these market, was contradictory to anti-trust policy and forced to submit itself to slow growth, Winn Dixie, which did not choose extensive strategies such as National Tea at the early stage and focused its marketing activities on south-eastern region of USA to obtain regional

37) *ibid.*, pp. 143-144.

38) W.E. Fruhan, Jr., "Pyrrhic Victories in Fights for Market Share," *HBR*, Sept.-Oct., 1972, pp. 101-102.

share, was free of regulation because it was not so outstanding. Thus, Winn Dixie became superior to National Tea in growth of market share in the long run. Allow me to omit description of item (3)³⁹.

Therefore, it can be said that Fruhan issues a warning that market share raising strategies which Buzzell and Wiersema maintain would not operate without reserve.

As scholars who establish definite restriction on high market share strategies and rather advocate optimum market share from different standpoint from Fruhan, we can name Bloom and Kotler. While admitting raising market share relates to high ROI, they contend that high market share is also a troublesome problem. This is because such company becomes an object of private anti-trust litigation and is exposed to attack by organizations to defend consumers and public interest and besides to much risk such as being treated as a target of anti-trust litigation by the government, which recently tends to charge structural features of markets (scale of market share). Therefore, they emphasize that "Attain optimum market share" instead of "Pursue maximization of market share" should be a corporate strategic task. Then, what is the optimum market share? They say, "A Company has attained its optimal market share in a given product/market when a departure in either direction from the share would alter the company's long-run profitability or risk (or both) in an unsatisfactory way"⁴⁰. Therefore, a company finding its current share below the optimal level should plan for market-share gains; a company that is at its optimal market share should fight to maintain it; and a company that has exceeded it should seek to reduce its current share.

Then, how can a company determine where its optimal market share lies? While profitability as a function of market share should first be measured, the relation between market share and ROI has fortunately been identified in the PIMS project. They say, "the average ROI of business with under 10% market share was about 9%. ...On the average, a difference of 10% percentage points in market share is accompanied by a difference of about 5 points in pretax ROI". They further say, "the PIMS study shows that businesses with market shares about 40% earn an average ROI of 30%, or three times that of those with shares under 10%."⁴¹ However, the PIMS study lumps together all market shares above 40%; therefore, the behavior of ROI in response to still higher market share is undisclosed. Consequently, a high market-share company must itself analyze where profitability will fall with further gains in market share. Thus, it becomes an issue of consideration whether increment of ROI may decline in market share over 40%. Attraction of customers faithful to competitors, coping with specific needs of customers, and high costs of legal activities, PR and petition campaign to defend oneself from criticism or regulation against high market share —these are thought to affect as declining increment of ROI. There-

39) *ibid.*, pp. 102-104.

40) P.N. Bloom and P. Kotler, "Strategies for High Market-Share Companies", *HBR*, Nov.-Dec., 1975, p. 65.

41) *ibid.*, p. 65.

fore, the business can be said to be positioned near the optimum market share, when the above factors begin to offset increment of ROI⁴²⁾.

Secondly, measurement of risk becomes an issue. Seeing the relation between market share and risk, businesses with low market share have high risk because of their weak position and growth of market share is accompanied by stronger position and lower risk. Risk becomes the lowest at the high and optimum share level and begins to rise thereafter by the reason as mentioned above.

Based on the above preparatory consideration, the optimum level of market share can be found through comparison of market share with ROI and risk. The procedure of optimization of market share is as follows; (1) The expected of achieving a specified higher level of market share; (2) The expected profitability associated with that market share; and (3) Expected increase in risk; these three parameters are analyzed for each level of many alternative market share level and a particular level of market share, under which no more satisfiable balance of profitability and risk cannot be found, is to be the optimum market share⁴³⁾.

Following the above consideration, Bloom and Kotler perform considerably detailed analysis on strategies of market share management in four phases of share building, share maintenance, share decrease and risk decrease⁴⁴⁾.

We have studied various theories relating to high market share. Fruhan or Bloom and Kotler point out that high market share are not always preferable and develop counterargument against BCG's contention on market share, standing on the different basis from Hall. BCG's contention on market share has another important point, which includes that businesses with low market share (low growth) (so-called dogs) should either fight for share raising or withdraw gallantly from business.⁴⁵⁾ However, is this contention right? Scholars who consider this point include Hamermesh, Anderson, Jr. and Harris.

They define low market share as less than half of the share of leading company of the industry and successful enterprises as those whose average return on equity for five years exceeds that of average of the industry. On applying these definitions to 900 businesses of 30 major industries listed in Forbes Annual Report on American Industry, many businesses coming under successful enterprises were found from among low market share businesses. Among these businesses, they chose Burroughs Corp., Crown Cork & Seal Co., Inc., and Union Camp Corp. and considered whether these companies have common strategies irrespective of different competitive environment. As the results of this consideration, four common items were found as follows: (1) market segmentation by unique and creative manners and display of own capacity in full; (2) efficient use of R & D; (3) contentment to remain small and emphasis of profit rather than market share and also of specialization rather than diversification;

42) *ibid.*, p. 66.

43) *ibid.*, p. 66.

44) *ibid.*, pp. 67-72.

45) B. Hedley, "Strategy and the Business Portfolio," *Long Range Planning*, Feb., 1977, p. 11.

and (4) president's energish leadership on business fronts⁴⁶⁾. This means that low market shares are not handicaps as BCG contends but merits to compete in such manner as big business cannot. This is also presentation of influential counterargument against BCG's contention.

Conclusion

We have hereinbefore explained one of two contentions by BCG, which have recently attracted the attention of specialists as constituting the main contents of strategic theory from among various issues on management strategic theory, in Presentation—(1) as the experience curve effect contended to be basic strategies on the business level (not on the corporate level) by Hedley. Next, we have elucidated, by analysis by Schoeffler and his associates, the results of the PIMS study project which verifies Hedley's contention. Since such results of the PIMS project have been generalized as the logic of high profitability connected with high market share, we have performed various consideration by connecting the results with high market share strategy problems. For example, we have introduced contention of Hall, theory of Day or Wind and Mahajan to criticize BCG-PIMS and development of various opinions on market share management presented by Buzzell and Wiersema, Fruhan, Bloom and Kotler, Hamermesh, and Anderson, Jr. and Harris.

As a result, it becomes clear that high profitability connected with high market share as maintained by BCG-PIMS connotes various problems. It also becomes clear on market share management that selection of the optimum market share rather than pursuit of high market share is strategically pertinent and that businesses with low market share may have possibility of survival and prosperity.

The results of consideration of such problems are closely related with another contention, portfolio approach, maintained by BCG as constituting the main contents of management strategies, so the relation with the contention should further be considered. If BCG's contention or the theory of experience curve effect is relating to experience on business operation, opinions contained in S.C. Wheelwright, "Japan—Where Operation Really are Strategic," *HBR*, July-Aug., 1981 which presents issues on basic concepts of strategies in connection with Japanese management affairs should be considered. Further, opinions contained in C.R. Anderson and F.T. Paine, "PIMS: A Reexamination," *Academy of Management Review*, July, 1978, etc. should be referred to on the above-mentioned PIMS project itself. As stated in the preceding paragraphs, not a few issues are still left, consideration of which will be made in new paper.

46) R.G. Hamermesh, M.J. Anderson, Jr., and J.E. Harris, "Strategies for Low Market Share Businesses," *HBR*, May-June, 1978, pp. 98-102.