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Marketing Strategy and Differential Advantage

Extending portfolio analysis and PIMS studies to include military concepts of strategic force produces a new paradigm of marketing strategies. The author introduces and calibrates the concept of strategic marketing ambition, relates this concept to the marketing mix, and then derives a theoretical function linking strategic ambitions and investments with market share. An operational measure of differential marketing advantage is introduced, and the methods of analysis are applied in an illustration of competitive investments, marketing strategy and differential advantage.

Introduction

STRIVING to achieve differential advantages in product, promotion, place and price, firms risk their futures on a set of contemporary marketing strategies. Three major research directions emerged in the 1970s to address these problems. Henderson's (1979) strategic matrix, the Buzzell, Gale and Sultan (1975) studies of the PIMS data, and Kotler and Singh's (1981) reports on marketing warfare have had a profound effect on strategic decision making. This paper builds on the foundation of these classic works in an effort to extend and sharpen the tools of strategic marketing analysis.

Marketing and Business Strategy

Henderson designed portfolio analysis for use in the development of business strategies. Marketing was not the focus of his strategic matrix. Rather, his interests lay in strategic business unit (SBU) and divisional resource allocations. Product portfolio analysis does not

address the marketing problems of differential advantage in promotion, place and price precisely because these are functional, not divisional issues.

In a comprehensive evaluation of the variety of strategic models available in marketing, Wensley (1981) concluded:

In undertaking strategic *marketing* analysis of any particular investment option it is important to avoid the use of classificatory systems that deflect the analysis from why there is a potential for *significant competitive* advantage (p. 181, italics added).

The conceptual framework developed in this paper leads the manager and the scholar to focus on the issues of why a "significant competitive" or differential advantage exists in a given product or service market. The inputs of portfolio analysis (share of market and growth rate in primary demand) are the outputs of marketing strategy. On what product, promotion, place and price strategies does share of market depend? That is the central question of this paper. The decision to brighten a star, milk a cow or kill a dog are larger than product strategy issues. Divisional resource allocations like these should be linked more directly to the other functional elements of the marketing mix. What seems needed is an extension of this divisional matrix into a completely marketing-oriented strategic paradigm.

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PIMS and Marketing Costs

In one of the most influential reports on the PIMS data, Buzzell, Gale and Sultan (1975) caution "neither PIMS nor any other empirical research can lead to a 'formula' for strategic choices" (p. 106). Following this conclusion, propositions in this paper are built not on empirical evidence but on theoretical foundations. This theoretical approach leads to new questions about the behavior of marketing costs.

Most recently Buzzell (1981, p. 48) concluded "the PIMS data show that costs are inversely related to relative market share." The concept of marketing strategy presented here adds a new dimension to the complex relationship between the costs of achieving a given share of market and the size of that share. A new perspective is also provided on the costs of maintaining market share, compared to the profit impact of harvesting market share.

Marketing and Military Strategy

Concepts from military strategy were introduced into the marketing literature by Trout and Ries (1978) and Kotler and Singh (1981). The contribution of these concepts has been to focus management attention more directly on the impact of competitive resource deployment in calculating the effect of a firm's marketing strategy. The operational measure of differential advantage proposed here builds upon the tie between marketing strategy and competitors' behavior.

Objectives

The objectives of this paper are to (1) introduce and calibrate the concept of strategic marketing ambition, (2) relate this concept to the marketing mix as a new paradigm of marketing strategy, (3) derive a theoretical function linking strategic ambition with market share, (4) illustrate the methods of analysis with the case of USAUTO vs. FORNAUTO, and (5) introduce an operational measure of differential marketing advantage.

The Concept of Strategic Marketing Ambition

In a competitive market, as on a military field, a strategy can be defined with reference to the behavior of rivals. In marketing, the behavior of interest is competitive deployment of marketing resources. Defining ambition is the first step in understanding strategy. One firm has ambitions with respect to a targeted share of market, which require the deployment of its strategic resources in direct competition with the commitments of designated competitors. Conceptually the total commitment of marketing resources among all

competitors vying for a share of the market is defined by the identity:

$$E = e + e^* \quad (1)$$

Total marketing investments (E) are the sum of one firm's expenditures (e) and the expenditures of competitors (e*).

On what does the value of e depend? Often the answer is that it depends on historical spending levels or industry norms. If an organization was spending \$100,000 and suddenly increased expenditures to \$500,000, one is tempted to conclude the firm is following an "attack" marketing strategy. There is, however, insufficient evidence for this conclusion. It is first necessary to know what are the commitments or expenditures of competitors. If the value of competitive expenditures is \$10,000,000, the aggressive nature of even a five-fold increase in spending becomes uncertain. A more revealing answer is that a strategic expenditure depends on the ambitions of the firm. This leads to the conclusion that a strategy implies a formal relationship between the ambitions of an organization and the expenditures of competitors:

$$e = ye^* \quad (2)$$

A strategic expenditure is the (arithmetic) product of a competitor's ambitions and the expenditures of rivals. The value of the strategic multiple y denotes a firm's ambition. In the example cited above, the organization's five-fold increase in spending is significant, yet it nevertheless reflects a limited strategic ambition. Before the spending increase the firm's strategic multiple is exactly 0.01 times competitive expenditures. After the increase, its strategic multiple is 0.05. With respect to the commitments of rivals, each of these may be viewed as retreat, or niching, strategies.

Strategic ambitions are usually given categorical labels, as if ambition were a discrete variable. Thus, reference is often made to a firm's intention to "dominate" on media spending, to "match" its competitors' commitments in distribution, or to "flank" the superior product performance of a rival.

A Calibration of Strategic Marketing Ambition

Military conventions offer an important point of reference in calibrating the concept of strategic ambition:

The "principle of force" says that the side with the greater manpower (resources) will win the engagement. This is modified if the defender has greater firing efficiency or a terrain advantage. The military rule of thumb is that for a frontal attack to be successful against a well-entrenched opponent or one controlling the "high ground," the attacking forces must deploy a 3:1 advantage in combat firepower (Kotler and Singh 1981, p. 34).

A "3 to 1 advantage" establishes the first point of reference in the calibration of strategic ambition. A "dominate strategy" consists of the ambition to achieve a strategic multiple of three times competitors' expenditures by deploying resources at the level $e = 3e^*$. The expenditure level implied by such ambition depends on competitive behavior, not on the firm's historical spending rate.

Dominate is the most ambitious strategy short of monopoly. At the other extreme, a retreat strategy invests at the rate implied by a strategic multiple approaching zero. In the mid-range of ambition, a match strategy is, by definition, investing at a rate that matches, or equals competitive resource deployments. The strategic multiple is therefore equal to 1.0 with a match strategy.

These three points of reference assign specific meaning to the military labels frequently used to identify different strategic ambitions. The result is presented in Table 1. The calibration of a flank strategy at a multiple of 0.33 is formal recognition of the most cost efficient level of ambition. The strategic multiple symbolizing attack set at 1.5 is arbitrary, though it must be calibrated somewhere between an ambition to match and to dominate. Implicit in Table 1 is the strategy of disengagement or rout, with $y = 0.00$.

One should not conclude that retreat is equivalent

TABLE 1
A Calibration of Strategic Marketing Ambition

Ambition	Calibration (y)
Dominate	y = 3.00
	y = 2.00
Attack	y = 1.50
Match	y = 1.00
	y = 0.33
Flank	y = 0.33
Retreat	y = 0.05

TABLE 2
A Strategic Marketing Paradigm

Ambition	Marketing Mix Component			
	Product	Promotion	Place	Price
Dominate	D1	D2	D3	D4
Attack	A1	A2	A3	A4
Match	M1	M2	M3	M4
Flank	F1	F2	F3	F4
Retreat	R1	R2	R3	R4

to a harvest strategy. It all depends on where the firm starts from. A strategic multiple of 0.05 may represent either a retreat or a harvest strategy, depending on whether the organization has already amassed sufficient market strength to harvest from prior investments, and whether harvesting is logistically feasible.

A Strategic Marketing Paradigm

Convention has long identified the four basic components of the marketing mix as conceptually related to product, promotion, place and price (Culliton 1948). It is thus natural to correlate strategic ambitions with the components of the marketing mix. The result, presented in Table 2, is a categorical specification of 20 exclusive and exhaustive strategic marketing options. In this way explicit meaning is given the term marketing strategy. A marketing strategy is any feasible combination of four decisions relating strategic ambition to components of the marketing mix. A feasible combination is any set of four mnemonic descriptors from Table 2. Note, it is not feasible simultaneously to dominate and retreat on the same mix variable in the same competitive field and time interval. The strategic marketing paradigm gives rise to a large number of (categorical) combinations applicable to as many different instances of marketing strategy.

Marketing Mix Investment Measures

If marketing expenditures represent true investment options, further inquiry must be made into the nature of these investments. What are the marketing investment options in product, promotion, place and price, and how are they measured? The payoff, the net present value of market share, is the output of a set of marketing strategies. It is important to be more specific about the nature of the inputs. The variables and their measures differ from market to market, yet a common core of marketing investment variables and measures can be identified. A partial list of the variables where significant differential advantages may be found in the marketing mix is presented in Table 3.

TABLE 3
Marketing Mix Variables and Measures

1.0 Product Investment Variables (Measures)	
1.1	Research and development (money/employees)
1.2	Patents (number issued and pending)
1.3	Production capacity (value/employees/units)
[1.4]	Assortment (number offered)
1.5	Plant inventories (value/units)
1.6	Product performance (technical/perceptual)
1.7	Trademarks (value/number of brands)
1.8	Warranties (value/terms)
2.0 Promotional Investment Variables (Measures)	
[2.1]	Media (money/number of messages)
2.2	Salespersons (money/number/calls)
2.3	Promotion (money/number)
2.4	Publicity (number of messages)
2.5	Positioning (metric distance)
2.6	Message (impact)
2.7	Production (value)
3.0 Place Investment Variables (Measures)	
[3.1]	Retail Outlets (number)
3.2	Retail salespersons (number)
3.3	Field inventories (value/units)
3.4	Selling space (square feet)
3.5	Shelf space (linear feet/facings)
3.6	Hours of business
3.7	Special measures (e.g., flights per city pair)
3.8	Trade support (dollar margins × volume)
4.0 Price Investment Variables (Measures)	
4.1	Primary demand elasticity
[4.2]	Price Relative (1 - P/P*)
4.3	Rebates/discounts (money)
4.4	Trade margins (percent)
4.5	Terms of sale (time/interest)
4.6	Refund policy (recovery value)
4.7	Transaction cost (money)

Strategic Marketing Descriptors

Very specific and comprehensive statements about the marketing strategy of a firm may be made by combining the strategic descriptors presented in Table 2 with the list of variables in Table 3. For example, in short form one marketing strategy may be described efficiently as:

$$[D1.4, D2.1, D3.1, A4.2] \quad (3)$$

The expression in equation (3) specifies the following marketing strategy: In product, the firm is dominating all rivals by offering a product line equal to three times the combined product offerings of these competitors. The short form identifier of this strategy is [D1.4], or "dominate on product assortments." Such a strategy assumes the production capacity and plant inventories necessary to support this product ambition. In promotion, the firm is similarly dominating the media investments of competitors, as signified by the notation [D2.1]. Probably such a dominant strategy in media

is coupled with similar strengths in positioning, message impact and media production values. Further, this firm's ambitions with respect to place investments are equally impressive. The descriptor [D3.1] signifies an ambition to dominate rivals on number of retail outlets. No doubt a dominate strategy in retail outlets is combined with a similar position with respect to salespersons, field inventories and selling space. Finally, the firm is attacking with its retail price strategy, [A4.2]. This signifies retail prices below those of rivals and probably is associated with more favorable trade margins, discounts, terms and transaction costs. The bracket notation used to identify strategic variables in Table 3 provides a rich assortment of strategic options as well as an efficient convention for discussion of marketing strategies.

The Strategic Marketing Cost Function

Discussions of marketing strategy often lead one to think in terms of discrete strategic options. In fact, ambitions are continuous. The calibration of strategic marketing ambitions presented in Table 1 gives rise to a continuous measure of strategic marketing costs. This measure has sufficient general utility in strategic planning to serve as a link between marketing strategy and the mix.

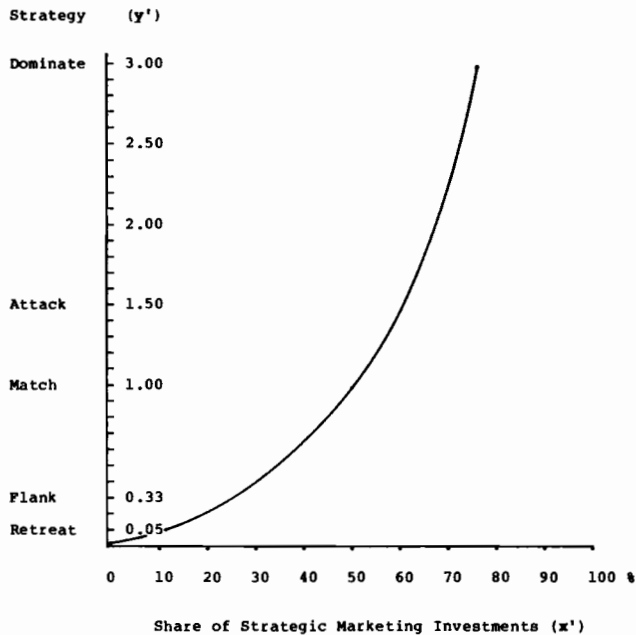
A marketing strategy consists of ambitions calculated to achieve specific shares of deployments in product, promotion, place and price. Identify these shares of marketing investments by the vector x' and recognize that it has at least four dimensions in marketing strategy corresponding to each mix component. Thus, x' fully describes each of four or more investment decisions. The share of strategic investments implied by a firm's marketing ambition is calculated from the expression:

$$x' = y' / (1 + y') \quad (4)$$

The relationship between ambition and share of investments defined in equation (4) is visualized easily in the case of a match strategy. If the firm's ambition is to match rivals on a given mix variable, the implication is that it will deploy its resources at a rate equal to 1.0 times competitors' investments and achieve a share of investments equal to 50%. In a similar fashion the share of investment implied by any strategic product, promotion or place ambition may be calculated from equation (4). The competitive price ambitions of a firm require the special expression in Table 3 (measure 4.2). Figure 1 presents the strategic multiples and their implicit shares of marketing investment for all feasible levels of ambition short of outright monopoly.

For planning purposes it is often convenient to ex-

FIGURE 1
The Strategic Marketing Cost Function



press the strategic marketing expenditures implied by a firm's ambition in terms of its targeted share of competitive investments:

$$e' = (x' / (1 - x'))e'^* \quad (5)$$

It is apparent from Figure 1 that a firm faces sharply increasing marketing costs as its ambitions grow. A retreat strategy, the nicher's haven, implies a share of investments nearly equal to its strategic multiple, a 1 to 1 ratio of ambition (and therefore marketing cost) to share of investments. Moving from a retreat to a match strategy requires exactly a twenty-fold increase in an organization's strategic multiple, while it achieves just under a ten-fold increase in its share of investments, a 2 to 1 ratio. Moving from a match to a leader's dominate strategy demands a three-fold increase in expenditures, while it yields only a 50% increase in investment share, a 6 to 1 ratio of marketing costs to share of effort. Incremental costs per share of investment increase even more dramatically with strategic marketing ambition.

Equations (4) and (5) are two forms of the same generalized marketing cost function relating strategic ambition, costs and share of marketing investment to competitive commitments.

Profit Impact and Marketing Costs

It has become widely accepted in recent years that marketing costs behave in the same way as do direct

and total costs: they decrease significantly as a proportion of total revenue with increases in share of market. This belief remains clouded by inconclusive evidence (Buzzell, Gale and Sultan 1975, p. 99). Empirical findings are inconclusive because of the complexity of the problem. Short-term harvesting decisions by market leaders as well as the unbridled ambitions of nichers can easily cloud the empirical results found in accounting statements.

An early study by the Marketing Science Institute presented evidence of the profit impact of private brand policies among over 100 companies in many lines of trade (Cook and Schutte 1967). A strong positive relationship was found to exist between marketing costs (both total and as a percent of sales) and share of market. MSI's private brand study also confirmed the PIMS results reported by Buzzell and others. As share of market increases, pretax earnings tend to rise along with margins, while the total cost ratio declines.

The classical expectation is that higher levels of performance earn higher operating margins and require at the same time investment of a larger proportion of revenues in marketing support services. Marketing costs are an enduring investment in the goodwill of a consumer franchise. One of the realities of a competitive market is that the leaders offer more quality per dollar of consumer expenditure (Ferguson 1982, p. 104) and achieve higher shares of market because of their proportionately higher levels of marketing investment. This conclusion does not deny that scale economies reduce the per unit costs of marketing warfare.

In light of the theoretical demonstration that marketing costs increase with market share, the classical expectation in support of this view and the confounding effects of strategic decisions on accounting reports, further research on this complex issue is warranted. To illustrate these methods of analysis, consider competitive investments, marketing strategy and differential advantage in the following case.

The Case of USAUTO vs. FORNAUTO

If ambition is the first step in understanding strategy, differential advantage is the last step to success. Few examples serve to make this point more effectively than the U.S. automobile industry. In the 1975 model year the marketing strategy of USAUTO was nothing if not ambitious. Evidence of this strategy is presented in Table 4. Henderson's strategic paradigm recognizes the ratio of 1975 secondary demand between USAUTO and FORNAUTO (7.33/1.39 from column one, Table 4) as equivalent to a market share multiple of 5.3 times. USAUTO dominates the terrain. The computed values of y show USAUTO dominated on

TABLE 4
Consumer Demand and Strategic Resource Deployments: USAUTO vs. FORNAUTO, 1975

	Quantity	Product	Promotion	Place	Price
USAUTO	7.33 mil	357	\$270.0 mil	23,800	\$3,838
FORNAUTO	1.39 mil	121	\$123.2 mil	6,200	\$4,208
Totals	8.72 mil	478	\$393.2 mil	30,000	—
(y)	5.3	3.0	2.2	3.8	0.912

Sources: Star et al. (1977), *Leading National Advertisers* (1974), NADA (1981). Mix entries are strategic commitments for USAUTO (e'), FORNAUTO (e'*), and Total market (E').

every element of the mix but price, where it adopted a retreat strategy.

Competitive Mix Investments

In product investments, USAUTO offered 357 distinct models compared with FORNAUTO's more limited line of 121 models. This represents a strategic multiple of 3.0 in favor of USAUTO. Its product strategy is identified in Table 3 as [D1.4]. Similarly, Table 4 shows USAUTO deployed its investments in national media promotion at a rate of \$270.0 million to FORNAUTO's \$123.2 million, posting a strategic multiple of 2.2 times its foreign rivals, designated [D2.1]. USAUTO's highest levels of ambition were achieved through its franchise dealer network. With 23,800 dealers to FORNAUTO's 6,200 franchises, USAUTO maintains a strategic multiple equal to 3.8 times, indicated with the notation [D3.1]. Finally, USAUTO even offers a small price advantage. The weighted median (MSRP) price of USAUTO's products was \$3,838 to a median weighted price for FORNAUTO's products of \$4,208 [A4.2]. If the "principle of force" alone applied, USAUTO was the clear winner in its 1975 model year deployment of strategic resources. Apparently, something is missing from this analysis of strategic resource deployment.

Competitive Marketing Strategy

These strategic investments in product, promotion, place and price are converted to their corresponding shares of marketing investments for USAUTO vs. FORNAUTO in Table 5. In 1975 USAUTO held

84.0% of unit sales, relinquishing 16.0% to its foreign rivals. Table 5 leads to the question, "How can USAUTO maintain 84.0% of unit sales with only 74.7% of product investments and 68.7% of national media investments?" The answer is that it maintained 79.3% of strategic place investments and a 8.8% price advantage.

Share of units sold is one of three measures of market share. To distinguish among these, designate share of units sold as m1, share of buyers as m2 and share of money sales as m3. Shares of units sold are the "spoils" of marketing warfare. To the extent this share is supported with comparable resource deployments on conventional mix investments, it will be maintained, other things equal. Share of units sold is the balancing mechanism, the center of gravity, of a free, competitive market. This center or balance point shifts in response to the lead of a firm's shares of strategic investments in product, promotion, place and price.

When a firm or group of competitors maintains a share of strategic marketing investments below its share of market quantity, m1 will be "pulled down" in search of a new balance in consumer preferences. On the other hand, when a firm's share of strategic investments is greater than its share of units sold, m1 will be "pulled up" to a new and higher balance, again reflecting consumer preferences. The tendency persists regardless of the response function one assumes to equate share of market with share of strategic investments. These arguments are simply a restatement of the fundamental law of market share determination (Kotler 1980, p. 218).

TABLE 5
Share of Market and Shares of Strategic Marketing Investments: USAUTO vs. FORNAUTO, 1975

	Market Share	Product	Promotion	Place	Price*
USAUTO	84.0%	74.7%	68.7%	79.3%	92.8
FORNAUTO	16.0	25.3	31.3	20.7	6.4
Totals	100.0%	100.0%	100.0%	100.0%	—

Relative price differences are calculated from the expression $m1 + (1 - P/P^)$.

TABLE 6
Differential Advantages USAUTO vs. FORNAUTO, 1975^a

	Product	Promotion	Place	Price
USAUTO	-9.3	-15.3	-4.7	+8.8
FORNAUTO	+9.3	+15.3	+4.7	-9.6

^aNote the signs of the price variable are naturally reversed in computing its differential.

This analysis also provides a more complete understanding of a harvest strategy. An organization is harvesting whenever its share of investments is less than its share of unit sales. No matter what its intentions may have been, USAUTO was harvesting on its product, promotion and place investments in the model year 1975.

A Measure of Differential Advantage

Differential marketing advantages are the keys to success. If x' is the firm's share of strategic investments and $m1$ is its share of market quantity, the differential advantages are calculated by subtraction:

$$da = x' - m1 \quad (6)$$

The shares of strategic marketing investments from Table 5 are expressed as their corresponding differential marketing advantages in Table 6. In the model year 1975 USAUTO posted an average 9.8 point competitive *disadvantage* in product, promotion and place investments. With an unsustainable price advantage, USAUTO was poised on the brink of at least a nine point loss in share of market as early as the 1975 model year. The response function is obviously exponential. In the last ten-day reporting period of 1981, FORNAUTO had achieved nearly a 36% share of market. No doubt the underlying investment strategies of these two world class rivals have been transformed as well.

Case Discussion

Quite likely a balanced strategy is less risky than an unbalanced one. The variance in x' about $m1$ suggests a useful measure of strategic marketing risk. Couple this with the notion that harvesting implies a negative marketing differential, and it is clear how easily a harvest strategy from a dominant position can lead to losses in share of market. Since 1975 USAUTO has been harvesting the goodwill of its dominant consumer franchise. How long can one harvest from a position of strength? It all depends on the "length of the planting cycle," which is to say, the consumer's average time between purchase occasions.

The long run in marketing should be defined in

this instance as the time it takes for the last regular buyer to make his/her first repurchase decision. In automobiles this is about seven years. By 1982 most U.S. new car buyers have made at least one repurchase. A repurchase occasion provides the consumer with the ultimate weapon, the opportunity to switch.

The length of the purchase cycle is an important consideration in assessing the long-term impact of a given strategic marketing differential. The nature of the market is another. Some markets are essentially product markets; among these are legal services. The act of consumption is intensely private. Neither promotion nor availability will alter our preferences for attorneys. In these and similar markets, greater weight must be assigned the impact of product investments. Other markets are more heavily influenced by place investments. Most consumers will not walk a mile for either a Camel or a Coke. Some markets are promotion oriented, like cosmetics and music. Others are cleared more directly by price. Gasoline is one of these.

Consumer preferences for automobiles would seem to be about evenly divided among product, promotion, place and price utilities. The legacy of following a harvest strategy on three of four mix variables in a market where the long run is counted in years is now apparent to USAUTO. The problems of shrinking primary demand which aggravated USAUTO's decline in share of market are skillfully told by Tucker (1980).

Conclusions

The concept of strategic ambition was calibrated from military conventions and correlated with the classical mix to produce a unique marketing oriented paradigm of strategic options. With a list of specific mix investment variables and reasonable measures of these supply side factors, comprehensive analyses may be made of a firm's marketing strategy and costs. An operational measure of marketing differentials was introduced and the methods of analysis were illustrated with the case of USAUTO vs. FORNAUTO over the industry's most recent purchase cycle. The predicted decline in USAUTO's share of market was fully realized by the 1980 model year.

Differential advantages and disadvantages are implicit in the marketing strategies of every firm. There

is a persistent tendency for long run share of market to follow the differentials associated with strategic commitments. Whether or not market share responds precisely in the way suggested by the analysis of USAUTO depends primarily on the distribution of consumer utilities among the four mix components.

Measures of these underlying relationships may be disturbed by a variety of factors. Chief among these are market definition and structure. If the market is defined too broadly, competitive substitution effects no longer apply. Define the market too narrowly and the result is omission of important competitors. With regard to market structure, the strategic options of a dominant firm vastly outnumber those of a nicher. Competitive response and accounting practice may also confound the conclusions of strategic analysis. The marketing ambitions of a firm may not be realized if rivals are determined to block a strategic move, while accounting records may conceal the harvesting strategies of a dominant rival. Finally, changes in primary demand may so effect profit impact that strategic ambitions are never realized. The principles presented in this paper are sufficiently robust to permit their suc-

cessful application in a market where the rivals are aggregates of international manufacturers, each with significantly different marketing strategies spanning nearly a decade in time.

Scholars can add to our understanding of marketing behavior with further research on these methods of analysis. Application of the strategic paradigm to a variety of other industries and testing the calibrations of marketing ambition should provide new insights about the nature of supply side marketing decisions. Specification of econometric models to include marketing differentials on each of the mix components may enrich their face validity as well as improve their reliability. The properties of the strategic marketing cost function suggest the need for future research on the costs of achieving, compared with maintaining, a given share of market. Measures of the risks of a marketing strategy should be explored in terms of the variance of investment shares about market share. Management in other industries should calculate coldly the differential advantages implicit in their own product, promotion, place and price strategies.

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