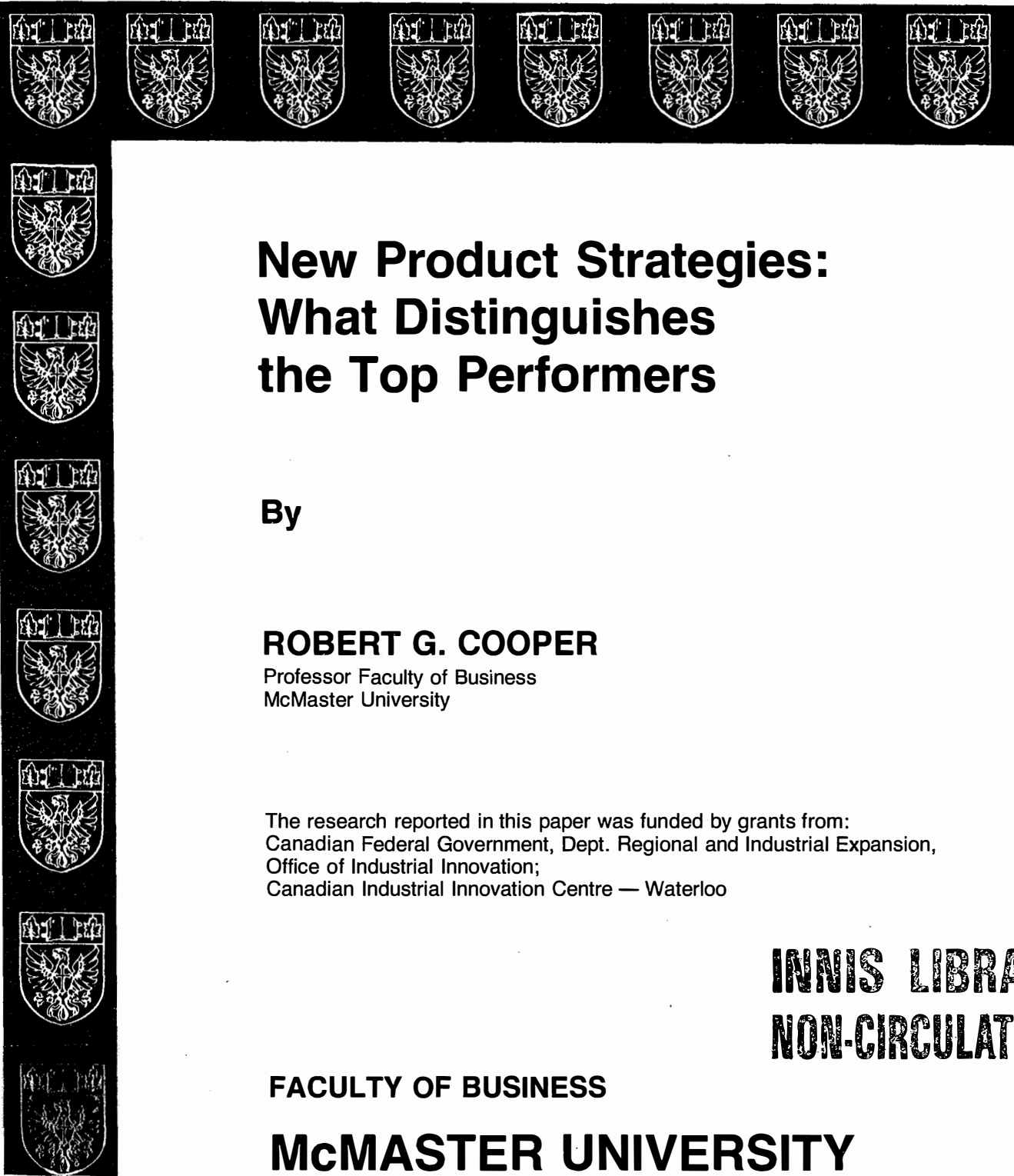


Strategy Innovation



New Product Strategies: What Distinguishes the Top Performers

By

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NEW PRODUCT STRATEGIES:
WHAT DISTINGUISHES THE TOP PERFORMERS

INTRODUCTION

A successful new product program is the objective of many companies. But most firms miss the mark. One enviable but small group of companies we uncovered, however, exhibited an unusually positive new product performance.

Consider some of their results:

- o New products had a dramatic impact on corporate performance: new products introduced over the past five years accounted for 47% of sales of these firms!
- o This group of firms, on average, achieved a 72% commercial success rate for developed products.
- o And on a myriad of other measures -- meeting objectives, profitability, success versus competitors -- this one group of companies consistently scored well above average.

Of even greater interest than these impressive performance results is the fact that **these firms shared a common strategy**. That is, the companies in this high performance group were very similar to each other in terms of the orientation and direction of their new product programs, and in the types of markets, products and technologies they targeted with their innovation programs.

What distinguished these top performer companies from other firms -- the elements of a successful new product strategy -- is the topic of this article. But before we present our results and conclusions, here is some background on the investigation we undertook: the rationale for the study, and how the study was carried out.

BACKGROUND

In a previous article in this journal, we reported the results of a study into how new product performance and strategy are linked (5). The rationale for such an investigation is straightforward:

- New products are increasingly seen as the leading edge of corporate strategy. Facing slow growth markets, increasing competition from home and abroad, and a quickening pace of technological development, more and more managers are looking to product innovation as the route to corporate growth and prosperity.
- In the development of a new product strategy, managers have little they can turn to in the traditional literature. Most of the popular strategy models — portfolio grids, such as the BCG model — deal with existing business units. What is lacking is a systematic procedure for generating and choosing strategic options (7), including new products and new businesses.
- Little field evidence exists on what makes for a successful new product strategy. In the quest for the secrets to new product success, most studies have focused on individual new products as the unit of analysis, rather than on the entire new product program. This approach has been criticized as myopic (1,9): the logical outcome from recommendations of such narrow studies is a conservative, "safe", but low impact new product program (3,4,10,17,18).

This combination of the importance of new product strategy, the lack of strategy concepts for product innovation, and the dearth of field evidence on successful firms' strategies was the impetus for the current research. Note that we don't claim that our research stands alone. Others are also probing the product innovation strategy question: Crawford, who looked at firms' performances and also identified the key elements of a product innovation charter (6); and Nystrom and Edvardsson who sought the links between new product strategy and performance (13,14,15,16). But these studies are few.

The underlying hypothesis of the current investigation is that **the new product strategy a firm elects determines the performance of the new product program.** Of course, other variables, such as the nature of the firm and its industry, will also affect performance. But it is principally those variables that are amenable to management action -- the new product strategy and how it is linked to performance -- that are of interest here.

We described in detail how the data was collected in our first article.

Briefly:

1. Four major blocks of variables, that portray a firm's new product strategy, were identified. A total of 66 separate strategy variables comprised these four blocks (see Exhibit 1).
2. One hundred and twenty-two industrial product firms with active new product development programs supplied the data: the strategies they elected, measured on the 66 strategy variables; and the performance results they achieved (nine performance criteria -- see Exhibit 2).

We then used statistical analysis to reduce the 66 strategy elements to 19 underlying and independent strategy dimensions (see Table 1). Relationships between each strategy dimension and performance were investigated, and these results were reported in our original article.

One problem with this type of analysis is that we tend to look at strategies on a dimension-by-dimension basis -- lists of strategies that impact positively (or negatively) on performance. With so many lists and elements, it is easy to lose sight of what the research means in terms of management action. For managerial purposes, however, a synthesis approach may be more appropriate. This approach considers strategies, not by developing lists of "good" and "bad" strategy elements, but by describing strategy gestalts or scenarios; that is, packages of strategies that firms actually elected. Recent work in organizational theory on how managers make decisions points to a synthesis approach -- working with gestalts or scenarios -- as a more promising format for strategy evaluation (8,11,12).

Exhibit 1

**THE STRATEGY BLOCKS:
THE COMPONENTS OF A FIRM'S NEW PRODUCT STRATEGY**

1. Nature of Products Developed

What types of new products does the firm develop? For example: innovative versus "me too"; fit with the current product line; degree of focus; quality level; uniqueness; complexity; etc.

2. Nature of Markets Targeted

What types of markets does the firm target with its new products? For example: high growth versus low growth; level of competitiveness; mass markets versus specialized; market size; proximity to current markets; synergy with the firm's marketing resources; etc.

3. Nature of Product and Production Technology Employed

What types of technology -- development and production -- are used in the new product program? For example: focused versus diverse; synergy or fit with the firm's current technology base; sophisticated, state-of-art versus "old and simple" technologies; etc.

4. Orientation and Nature of the Process

What direction, stance and commitment does the new product program have? For example: offensive versus defensive; level of spending; market versus technologically driven or oriented; proactive versus reactive; risk averseness; etc.

Exhibit 2

THE MEASURES OF NEW PRODUCT PERFORMANCE

- . The percentage of current company sales made up by new products introduced over the last five years.
- . The success, failure and "kill" rates (percent) of products developed in the last five years.
- . The extent to which the new product program met its performance objectives over the last five years.
- . The importance of the program in generating sales and profits for the company.
- . The extent to which profits derived from new products exceed the costs of the new product program.
- . The success of the program relative to competitors.
- . The overall success of the program — a global rating.

The first two measures were obtained as percentages. The last five were gauged on zero-to-ten anchored scales.

Table 1

THE NEW PRODUCT STRATEGY DIMENSIONS

Name	Dimension Description
1. Technological Sophistication, Orientation & Innovativeness (14.1%)	portrays the degree to which the firm utilizes sophisticated and state-of-the-art development technologies, is heavily R&D oriented, and develops high technology, innovative, technologically complex and high risk products.
2. Production & Technological Synergy (7.5%)	describes the degree of fit between the requirements of products the firm develops and the firm's technological resource base: production technologies and resources, and R&D and engineering skills and resources.
3. Product Fit & Focus (7.5%)	portrays the degree to which the firm's new products are similar to its existing products, have a similar end-use, are in the same product class, fit into an existing product line and are closely related to each other (focused).
4. Market Newness (4.2%)	describes whether the firm's new product markets are new to the firm: new customers; new channels and salesforce; new competitors; and new advertising and promotion methods for the firm.
5. Market Potential, Size & Growth (4.0%)	describes the firm's tendency to seek large, growing and high potential markets for its new products.
6. Marketing Synergy (3.7%)	portrays the degree of fit between the firm's new product markets and its marketing resource base: channels and salesforce; advertising and promotion skills; and market research resources.
7. Marketing Orientation & Domination (3.4%)	describes a new product program dominated by a marketing group and strongly market oriented, proactive on market need identification and relying on market derived new product ideas.
8. Market Competitiveness (2.9%)	captures whether or not the firm enters highly competitive new product markets featuring intense price competition and a high level of customer satisfaction with competitors' products.
9. Export Orientation (2.6%)	describes the firm's tendency to export its new products to nearby foreign markets and world markets.

cont'd....

Table 1 (continued)

Name	Dimension Description
10. Differential Advantage: Quality & Superiority (2.5%)	describes the degree to which the firm seeks high quality products (last longer, more reliable, tighter specifications, etc.) that meet customer needs better than competing products, and let the customer perform a unique task.
11. Differential Advantage: Customer Impact & Features (2.4%)	portrays the firm's propensity to introduce new products that have a major impact on customer use behavior, offer the customer unique features, and let the customer reduce his costs.
12. Premium Priced Products (2.3%)	describes the degree to which the firm's new products are higher priced than competitors.
13. Product Customers (2.1%)	depicts the tendency for the firm to introduce custom products, aimed at specialized markets (as opposed to mass markets).
14. Program Focus (2.0%)	tells how closely related the new products are to each other in terms of production methods, development technologies, markets and product type, i.e. a "concentrated" versus "diversified" program.
15. Market Research Spending (1.8%)	a univariate factor, comprised of market research spending on new products as a percent of corporate sales.
16. Competitive Dominance (1.8%)	describes the firm's tendency to enter new product markets featuring a dominant competitor with a high degree of customer loyalty.
17. Market Need Newness (1.7%)	describes how new the needs served by new products are to the firm.
18. Offensive Orientation (1.6%)	pictures an offensive program aimed at increasing market share (as opposed to defensive), with an active idea search effort and relying heavily on market research.
19. R&D Spending (1.5%)	a univariate factor, comprised of R&D spending as a percent of corporate sales.

Note: Dimensions based on factor analysis. Numbers in parentheses indicate % variance explained prior to rotation. Add to 74.7%.

A second concern with this variable-by-variable approach is the fact that no one firm can be found which follows the prescribed strategy; that is, a firm which elects all the positive elements and avoids all the negative. If no firm elects the ideal, then this raises questions about realism and practicality. It is much more reassuring when a group of firms can be identified which actually followed a certain strategy and won!

The current article looks at the strategies that firms actually elected. It uses a gestalt or scenario approach to strategy analysis. Conceptually, we first describe each of the 122 companies in terms of the 19 underlying strategy dimensions (Table 1). We then seek out groups or **clusters of companies that have similar strategies**. Each group of companies becomes a type or strategy scenario. We next "lower the microscope" on each group to see what performance they achieved, and what strategies they shared. It was in this way that our elite group of top performers, which shared a common strategy, were uncovered. Exhibit 3 provides details on the data analysis.

RESULTS

Five distinct strategy types or scenarios were uncovered. Each group of firms was characterized by a shared package of new product strategies; at the same time, each group was unique i.e. was quite different from the other groups in terms of the 19 strategy dimensions.

The strategy profiles for each group of firms are shown in Exhibit 4. For example, the Strategy A firms were technologically sophisticated, but lacked a market orientation (reading down Exhibit 4). Using these strategy profiles, we were able to label each strategy type. The five scenarios are:

- A: The Technologically Driven Firm.
- B: The Balanced Strategy.
- C: The Defensive, Focused, Technologically Deficient Firm.
- D: The Low Budget, Conservative Strategy.
- E: The High Budget, Diverse Strategy.

Exhibit 3

THE RESEARCH: METHOD AND ANALYSIS

A population of industrial firms known to be active in new product development was identified and narrowed to a convenient geographic area (Ontario and Quebec, Canada). Firms were randomly sampled, and managers responsible for their firms' new product efforts from a commercial perspective were contacted.

Managers were asked to describe their firms' new product strategies: a total of 66 strategy variables. For most of these, managers were presented strategy statements and asked to indicate whether each described their firm (agree/disagree: 0 to 10 scales). Other variables, for example, R&D spending, were measured directly. Information was also sought on the performance of the program: 9 separate measures, including scaled questions and direct measures.

A total of 170 firms were originally contacted, and 122 usable questionnaires were returned for a response rate of 72%. The eventual sample by industry was:

Electrical & Electronic	26.2%	32 Firms
Heavy Equipment	24.6%	30 Firms
Chemicals	19.7%	24 Firms
Materials & Components	20.5%	25 Firms
Other	9.0%	11 Firms
TOTAL	100 %	122 Firms

The 66 measures of strategy were reduced using factor analysis: varimax rotation, SPSS routine. The appropriate number of factors was decided on the basis of the scree test, Horne's test, Barlett's test, and the criterion of parsimony and explanation. A total of 74.7% of the variance was explained by the 19 factors identified (Table 1).

The factor scores for each firm were next calculated: that is, the location of each firm on the 19 dimensions. Cluster analysis (Ward's method with a relocation procedure) was used to define the strategy clusters.

Five well-defined strategy clusters were identified. A clustering level of five groups was chosen on the criterion of maximum homogeneity within groups and parsimony of explanation. Firms were fairly evenly divided among clusters and no outliers were detected. The cluster analysis was validated in two ways. First, cluster membership was related to the original 19 factors (one way ANOVA's), testing for homogeneity within and differences between clusters. This validation was positive: cluster means were significantly different on 14 of the 19 factors at the 0.01 level, and on two additional factors at the 0.05 level; on only three factors were the clusters not significantly different. The second validation involved the use of five separate two-group discriminant analyses, whereby discriminant functions were developed between cluster membership (each cluster versus the other four clusters) and the 19 factors. On average, the discriminant functions correctly classified 98.4% of the cases, lending strong support to the cluster analysis solution. The results of the ANOVA's, together with Duncan multiple range tests, permitted the interpretation of clusters, and yielded the profiles in Exhibit 4. The discriminant analyses results are used in Exhibit 5.

Cluster membership was also related to performance results (ANOVA's and Duncan multiple range tests). Four of the nine performance measures were significantly related to the clusters ($p=10$):

- the extent to which the program met performance objectives.
- the importance of the program in generating sales and profits.
- the success rating of the program versus competitors.
- the overall success rating of the program

Distinct trends could be identified for the other performance criteria. The results are shown on the performance maps of Figure 1.

Cluster membership was also related to company and industry characteristics (ANOVA's and Duncan multiple range tests). No cluster was specific to any one industry.

EXHIBIT 4 STRATEGY PROFILES OF FIRMS

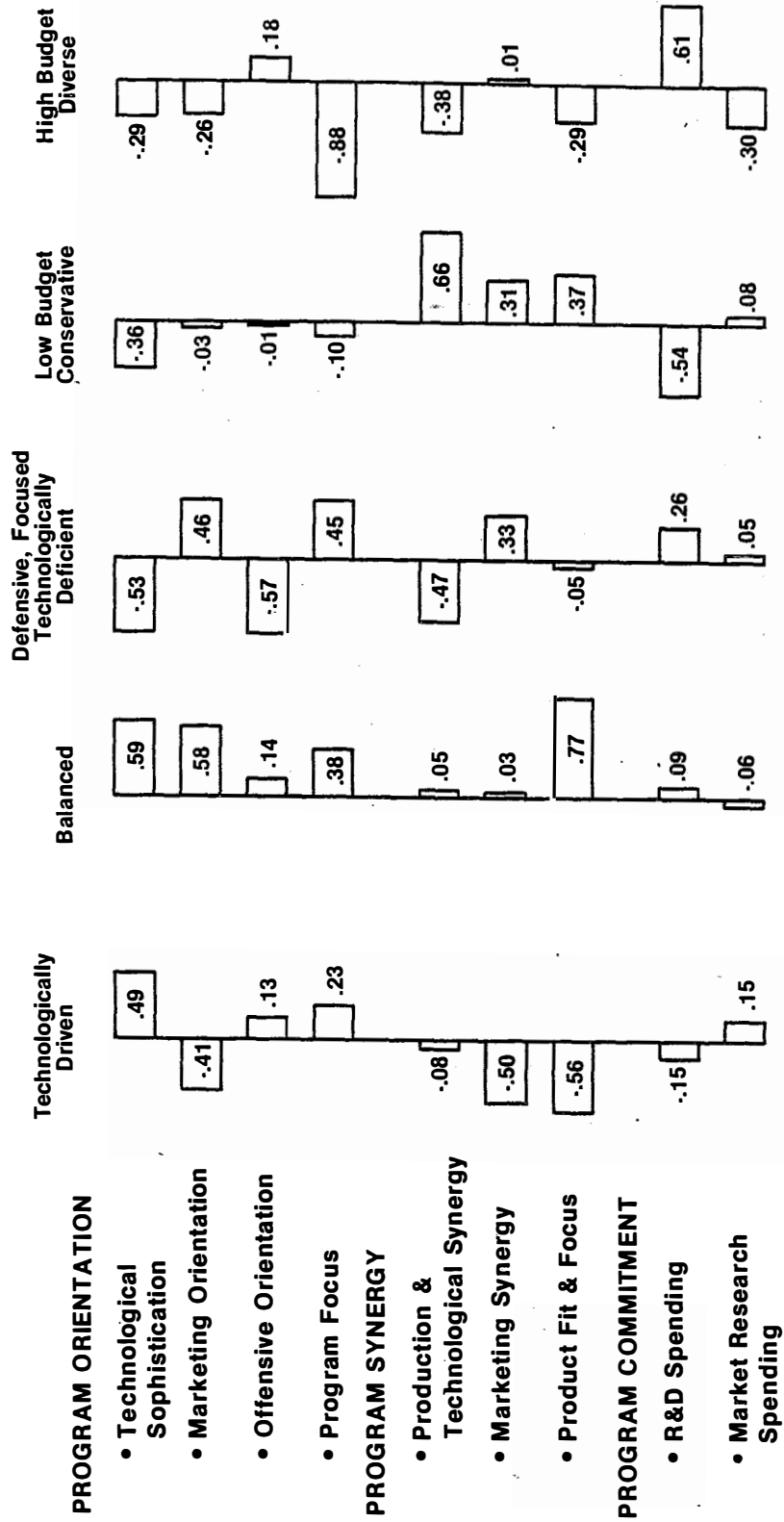
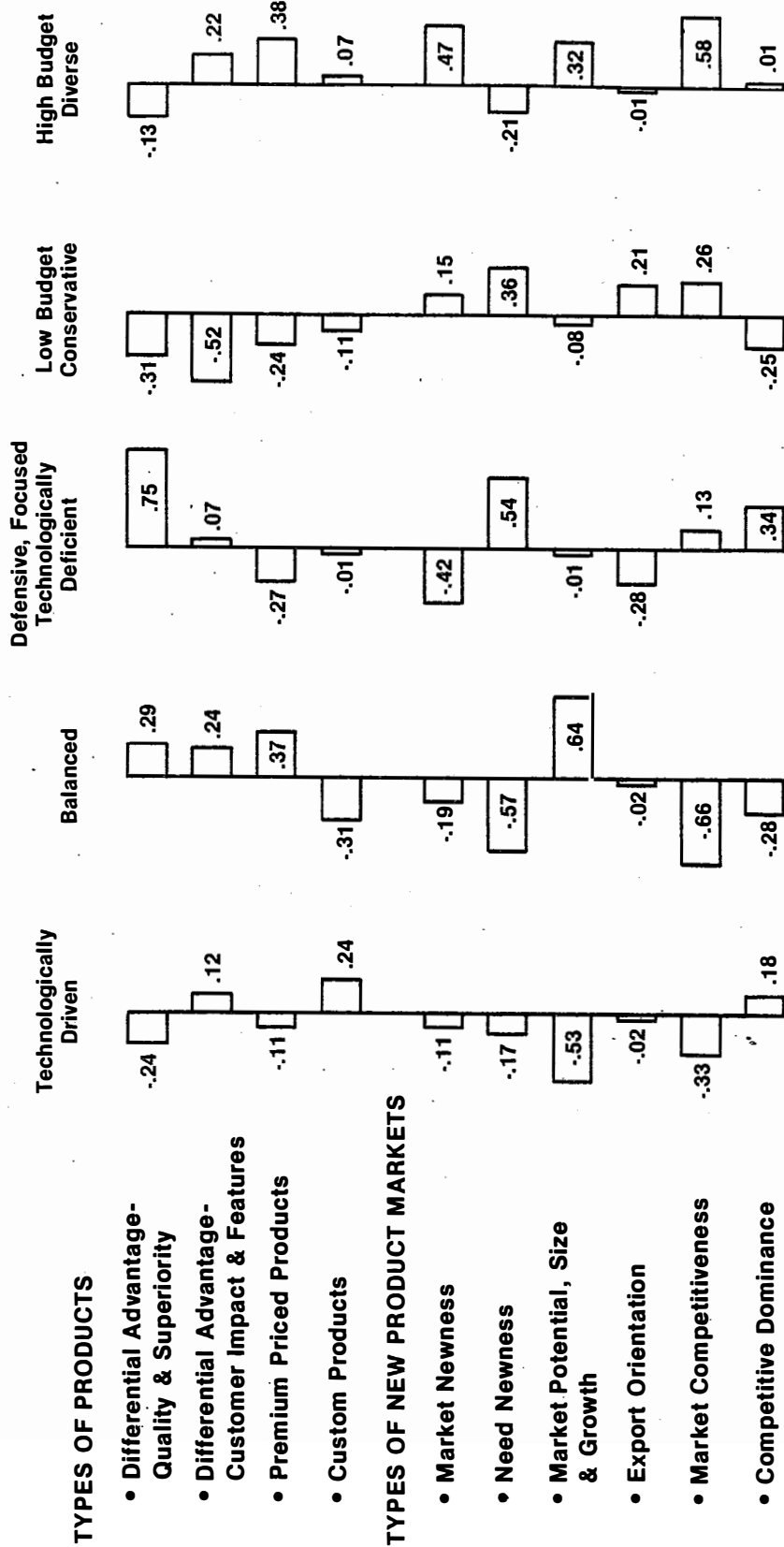


EXHIBIT 4 Cont'd STRATEGY PROFILES OF FIRMS



Consider, now, the unique strategies elected by each of our five groups of firms (refer to Exhibit 4 for the profile of each):

A. The Technologically Driven Firm

The most popular strategy (26.2% of firms) was a technologically driven strategy. Such firms had a **technologically sophisticated, oriented and innovative** program (factor 1) — the strongest of all groups.¹ For example, Strategy A firms were strongly R&D oriented, were proactive in acquiring new development technologies, were proactive in generating new product ideas and employed state-of-the-art development and production technologies. The program was an offensive (versus defensive) one, and was viewed as a leading edge of corporate strategy. And new products employed sophisticated development technologies, were high technology, innovative, technically complex products, offered unique features to customers, and were high risk and venturesome projects.

At the same time, these strategy A firms were decidedly not **market oriented** (factor 7): a non-market oriented new product process; lacking a marketing group presence; not proactive in market need identification; new product ideas not market derived; and a process dominated by a technical group. Perhaps because of this lack of a market orientation, such firms chose poor markets: their new products took them into **low potential, small, low growth markets** (factor 5); and the **markets** were not **synergistic** with the firm's existing marketing resource base (factor 6). But the **markets** were not highly **competitive** (factor 8). Finally the products these technologically driven firms developed did not fit the firm's existing product lines -- a **poor product fit and focus** (factor 3).

¹Factor numbers refer to the dimensions in Table 1, where a complete description of each factor or dimension is provided.

The picture emerges of a technologically aggressive and powerful firm, strongly committed to R&D, and tackling higher risk projects; but also a firm completely lacking in a market orientation, and which chose (or found itself in) unattractive new product markets. "Step out" products -- far removed from the current product line -- were also a part of this A-type firm's strategy.

B. The Balanced Strategy Firm

A small group of firms, representing only 15.6% of the sample, practiced a balanced strategy. Like the A-type companies, they too were **technologically sophisticated, oriented and innovative** (factor 1). But they balanced this technological prowess with a strong **market orientation** -- the strongest of any firm (factor 7). For example, these strategy B firms had a strongly market oriented new product process; it was dominated by a marketing group; the firm was proactive in identifying market needs; and new product ideas tended to be market derived. Perhaps because of their market sensitivity, these firms elected particularly lucrative markets for their new products: **high potential, large and growing markets** (factor 5) and **non-competitive markets** (factor 8: little price competition; non-intensive competition; potential users dissatisfied with competitors' products; no dominant competitor).

In addition to a strong market orientation married to a technological prowess, these Balanced Strategy firms featured new products with a **high degree of fit and focus** (factor 3). Their new products had a similar end-use as their existing products, fit into an existing product line, were in the same product class as the firm's existing products, and were also closely related to each other.

There were other strategy directions which characterized this Balanced Strategy firms (Exhibit 4 gives the total picture). But a union of technological prowess, a strong market orientation, a high degree of product fit, and the ability to chose high potential, high growth, non-competitive

markets, largely separated these B-firms from the rest.

C. The Defensive, Focused, Technologically Deficient Strategy

One small group of firms (15.6%) simply lacked the technological prowess to be very successful in product innovation. Of all firms, they were the lowest on the two technology dimensions, namely **technological sophistication, orientation and innovativeness** (factor 1) and **production and technological synergy** (factor 2). Their programs were **defensive** ones (factor 18): they were aimed at maintaining market share rather than gaining share, featured a minimal search effort for new product ideas and did not rely on market research. In a similar vein, these C-type firms targeted their new products at **familiar markets** (factor 4) -- that is, markets the company had served before. And the innovation program was fairly **focused** (factor 14): their new products were related to each other, were aimed at the same markets, and used related production and development technologies.

Even though these firms stayed with familiar markets, they ended up trying to **serve new needs** -- needs they hadn't served before (factor 17) -- in these markets. And in spite of a lack of technological prowess, these Strategy C firms tried to develop **high quality, superior products** (factor 10).

The picture emerges of a "non-strategy", or at best, an inconsistent one: a technological weak firm with a focused, close-to-home, defensive strategy, but somehow trying to serve new needs with superior products.

D. The Low Budget, Conservative Strategy

This fairly large group of firms (23.8%) had the lowest relative **R&D spending** of all firms (factor 18) and also lacked technological prowess (factor 1). And they developed undramatic new products (factor 11): products which did not affect customer use behavior, offered no unique features to users, and did not reduce customer costs.

But D-type companies balanced these technological, R&D and product weaknesses with a highly synergistic, stay-close-to-home strategy. They were the most synergistic of all firms in terms of **production and technological** resources (factor 2). Their new products employed production technologies familiar to the firm, and fit the company's production facilities. Further, their new products closely fit the firm's engineering and R&D facilities and skills, and made use of technologies the firm currently possessed. To a lesser extent, these D-firms chose new product markets where they could make use of their current **marketing resources** (factor 6: same salesforce, distribution channels, advertising and promotion methods, etc.) Moreover, their new products were closely related to their existing products -- a high degree of **product fit and focus** (factor 3).

The picture one gains is of a conservative strategy featuring low spending and "ho hum" new products, but balanced by high degrees of technological, production, marketing and product synergy.

E. The High Budget, Diverse Strategy

This final group of companies, representing 18.9% of the sample, stands in direct contrast to the D-type firms. This group spent the most of all firms on R&D (factor 18: **R&D spending** as a percent of sales). But they took a "shot gun" as opposed to a rifle approach to new products:

- o They had the least **focused** program of all firms (factor 14) i.e. products, technologies, markets were not related to each other, and were highly diverse.
- o They attacked **new markets** for the firm (factor 4).
- o They featured a low degree of **production and technological synergy** (factor 1) and a low level of **product fit and focus** (factor 3).

Coincidentally, these "big spenders" ended up in **highly competitive** new product markets (Factor 8).

PERFORMANCE AND STRATEGY

Which of these five strategy types -- A through E firms -- led to the best performance? Or, more correctly, what type of performance was achieved by each strategy type? Note that we measured "performance" in a variety of ways.

Further analysis revealed that major performance differences existed between strategy types. These performance differences are shown in the form of performance maps -- see Figure 1. Here we've taken seven key performance measures, and shown the locations of strategy groups on the maps.² For example, in the first map in Figure 1 (upper left), percent sales by new products and product success rates are both shown (north-south and east-west axes). Here we see that Strategy C firms did poorly on both dimensions.

A quick review of these performance maps reveals that one strategy -- Strategy B or the Balanced Strategy companies -- stood out on virtually every performance measure. Note how this elite group consistently appears in the upper right quadrant of the performance maps -- the high performance quadrant. These Balanced Strategy firms

- were highest in terms of meeting their new product program performance objectives;³
- were first in terms of the importance of the program in generating corporate sales and profits;³
- had the highest rated new product programs: overall success and success versus competitors;³

²Although nine performance criteria were measured, three were closely connected: success, failure and "kill" rates of new products. Only success rates are shown in the maps.

³Strategy types achieved significantly different performance results on these measures ($p = 0.10$ or better). Distinct trends were detected on the other three measures.

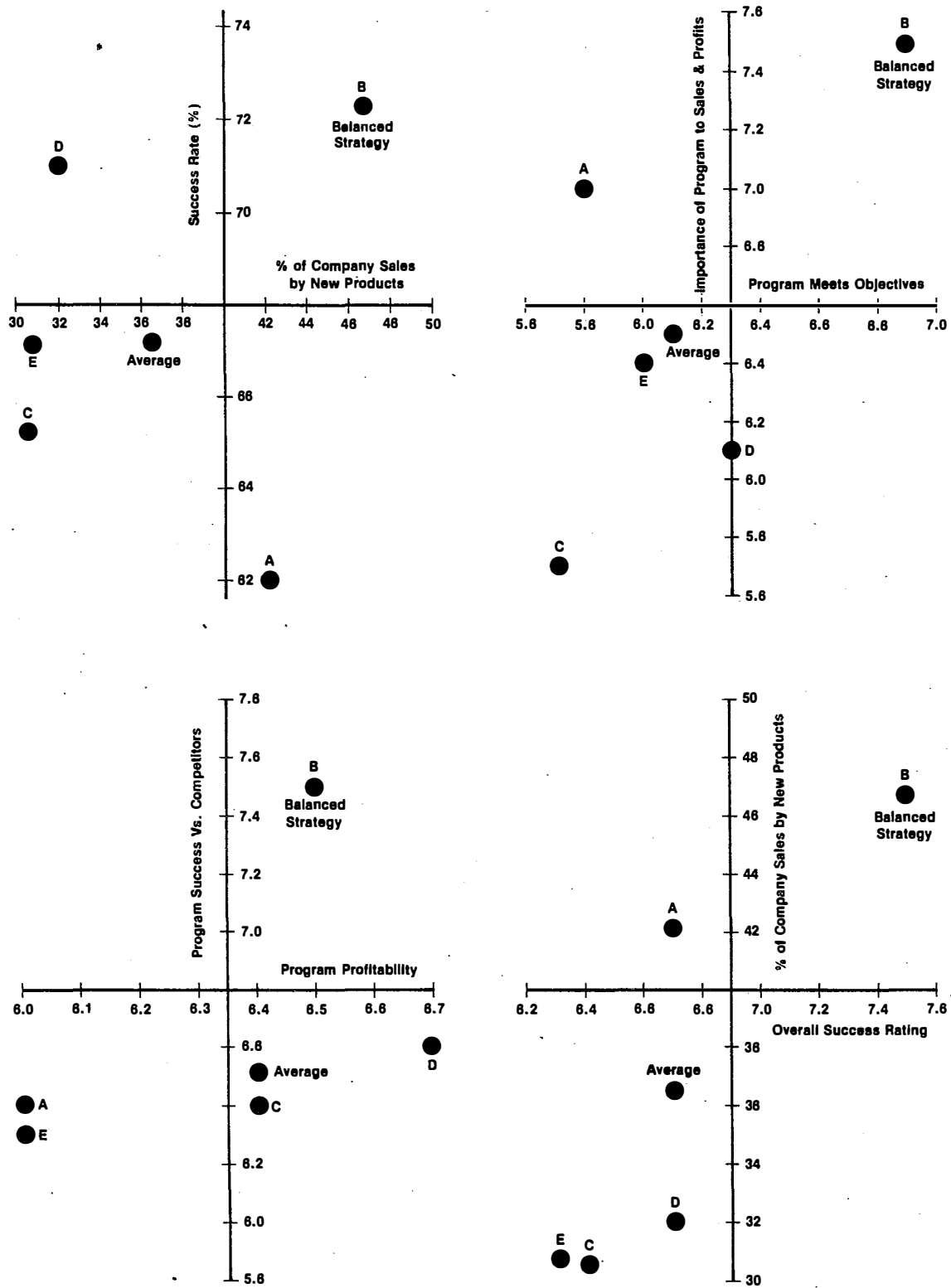


Figure 1. Locations of the five strategy types on performance maps.

- had the largest proportion of sales generated from new products (46.7% versus 34.5% for the other firms);
- had the best success rates of developed products (72.3% versus 66.3% for the other firms); and
- were essentially tied for first place in terms of program profitability.

Of all strategy types, our Balanced Strategy B-type firms fared the best, on most measures, and by a considerable margin. Here's how all five strategy performed, in order of performance (see Figure 1):

B.	The Balanced Strategy	Fared by far the best: first on virtually every performance measure.
D.	The Low Budget, Conservative Strategy	Satisfactory performance: a profitable program with a high success rate, but one which had relatively little impact on company sales and profits.
A.	The Technologically Driven Strategy	Moderate performance: a high impact program, but plagued by a low success rate and low profitability.
E.	High Budget, Diverse	Poor results: deficient on most performance measures.
C.	Defensive, Focused, Technologically Deficient	Poor results: deficient on most performance measures.

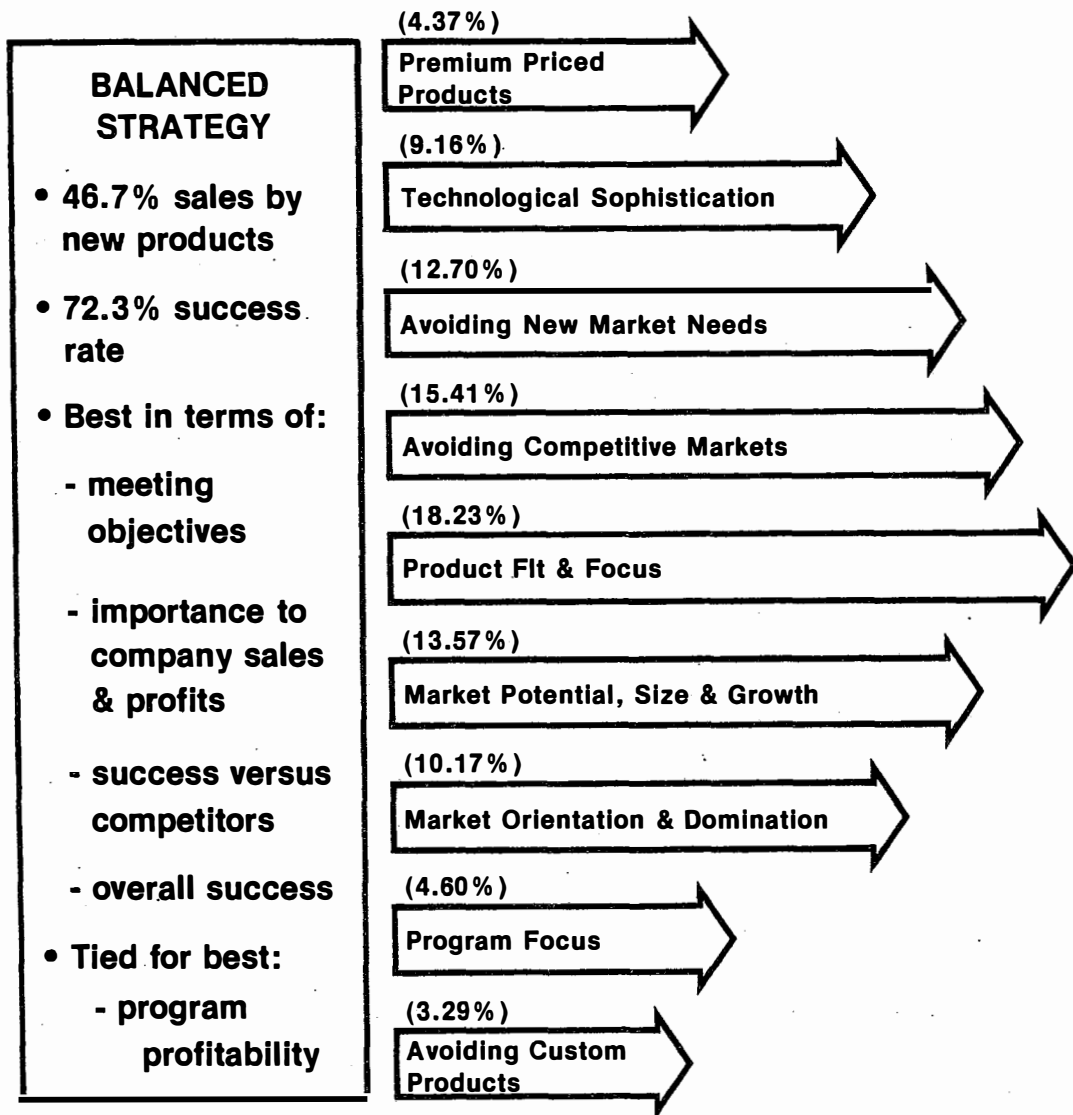
THE HIGH PERFORMERS

What was so different about the Strategy B firms that led to such a high performance? And what strategies distinguished these firms from the list. At this point, we take a much closer look at these top performers in an attempt to identify specifically what they did differently. Note that, while the Balanced Strategy firms shared some strategies with other firms, the **package of strategies** they elected was unique. Exhibit 5 portrays this bundle of strategies.⁴

⁴The profile of the B-firm is given in Exhibit 4. The distinguishing characteristics are based on discriminant analysis and are shown in Exhibit 5.

EXHIBIT 5

THE BALANCED STRATEGY : THE TOP PERFORMERS



First, these high performance firms had a unique program orientation.

They were, at the same time:

- o Technologically sophisticated and oriented.
- o Market oriented.
- o Focused.

But what are the specific ingredients of these three orientations? Here are some of the more important elements that make a firm technologically sophisticated and oriented:

The firm's new products ...

- employ sophisticated development technologies;
- are high technology products;
- are highly innovative products;
- are technically complex;
- employ state-of-the-art development and production technologies;
- offer unique features to customers -- not found on competitive products;
- are high risk ventures;
- and are venturesome (as opposed to "sure bets").

The firm itself is ...

- strongly R&D oriented;
- proactive in acquiring new development technologies;
- and proactive in generating new product ideas.

And the product innovation program is...

- offensive (as opposed to defensive);
- and a leading edge of corporate strategy.

A strong market orientation was a second feature of these top performers' strategy. Remember, these Strategy B firms were the only ones to combine a technological sophistication and orientation, with a strong market orientation. A strong market orientation means ...

- the new product process is strongly market oriented;
- the process is dominated by a marketing group;
- the firm is proactive in market need identification;
- new product ideas are market derived;
- and the process is not dominated by a technical group.

The third orientation which distinguishes these top performers is program focus -- that is, having a rifle rather than a shot gun approach to new

products. In focused programs ...

- new products employ related production methods and related development technologies;
- new products are aimed at related markets;
- and new products are related to each other.

Besides the orientation of their innovation programs, these Balanced Strategy firms selected certain types of new product markets. Descriptors of these markets become useful screening criteria in the selection of new product arenas or projects:

- o Non competitive markets.
- o High potential, large and growing markets.
- o Markets whose needs the firm had served before.

Highly competitive markets, which our elite firms seemed to avoid, are characterized by ...

- a high degree of price competition;
- intense competition;
- customers satisfied with competitors' products;
- and a dominant competitor.

On the other hand, highly lucrative markets, which the Balanced Strategy firms targeted, are markets which ...

- have a large market potential;
- are rapidly growing;
- are large (dollar volume);
- and are mass markets (many customers versus a few).

Finally, these firms tended to chose markets whose needs the firm had served before. That is, even though the market itself might have been new to the firm, the needs the firm served with its new products were familiar ones to the firm.

These high performance firms also selected certain types of new products:

- o A high degree of product fit and focus.
- o Premium priced products.
- o Non custom products.

Our high performer firms, first, selected new products which closely fit into

the current business and product line. These "high fit" new products . . .

- have a similar end-use to the firm's existing products;
- fit into the firm's existing product lines;
- are in the same product class as the firm's existing products;
- and are closely related to each other -- focused.

The firm appeared to avoid deliberately a strategy of custom new products; that is, products that were custom designed and aimed at one or a few customers. Finally, premium priced products were a factor in these winning firms' strategies -- the opposite of a low cost, high volume approach. Coincidentally, these firms did feature new products with a differential advantage, which helps to explain the premium price strategy. Two types of product advantage were uncovered in the study:

- . **Product quality and superiority** (factor 10) where new products are higher quality than competitors' products, meet customer needs better, and let the customer perform a unique task.
- . **Customer impact and features** (factor 11), where new products strongly affect customer use behavior, offer unique features to the customer, and reduce the customer's costs.

Neither type of product advantage strategy was a strong and distinguishing characteristic of our elite group of firms: certain other strategy types also developed such products. The point is worth noting, however, that the Balanced Strategy firms was the only group to score high on both product advantage dimensions simultaneously.

INDUSTRY AND FIRM TYPES

Exactly who were these higher performing firms? Confidentiality guarantees prohibit us from revealing their identities, but here are some of their characteristics:

- o Higher performers were **not** specific to any one industry! Contrary to what many managers believe, they were not all grouped in one industry, such as electronics.

- o But they did find themselves in higher growth and technologically developing industries.
- o Top performers were neither larger nor smaller than other firms (based on corporate sales).
- . But they did rate themselves strong versus their competitors in terms of financial, R&D, market research, production, salesforce and advertising resources and skills.

Two questions immediately come to mind. First, was the high performance of Strategy B firms due to the strategy elected, or due to the type of firm and industry? It is conceivable that the sound performance of such firms was because they were strong firms in higher growth, technologically developing industries. The second question concerns the generalizability of the performance results across firms: does each strategy type yield consistent results, regardless of firm type? It could be, for example, that although Strategy C in general yielded very poor results, for one type of firm or industry, it produced good performance.

We used a variety of statistical methods to investigate these two questions, namely the direct effect and intervening effect of firm and industry characteristics on performance (see Exhibit 6). In the case of strategy versus industry/firm influences, the results were conclusive. Being in a high growth, technologically developing and higher technology industry clearly meant better new product performance. These results come as no surprise. But electing Strategy B -- the Balanced Strategy -- was also directly and independently tied to performance. And when firm characteristics were considered (size, strengths, etc), it was the strategy elected and not the firm resources, which was linked to positive performance. The conclusion is that, while some industry characteristics obviously affect a firm's new product performance, the strategy chosen -- namely the Balanced Strategy -- has a pronounced, positive and independent impact on performance.

Exhibit 6

THE EFFECT OF FIRM/INDUSTRY CHARACTERISTICS
ON THE STRATEGY-PERFORMANCE LINK

To answer the question of relative impacts i.e. strategy versus firm/industry characteristics, two way ANOVA's were used to test the separate effects of strategy cluster membership and firm/industry characteristics on nine performance measures. For this analysis, the sample of firms was split into two groups: cluster B versus the rest of the firms. In the case of firm strengths and sales, it was cluster membership and not company characteristics that were significantly tied to performance measures (significance of main effects). In the case of industry characteristics, both main effects were significant ($p=0.10$). These results were confirmed with multiple regression analysis of each performance measure versus firm/industry characteristics and cluster membership (cluster B versus other clusters; 0,1 dummy variable).

The second question, namely the intervening effect of the firm/industry characteristics, was tested as follows: for each cluster, one-way ANOVA's were used to test the effect of firm/industry characteristics on performance. The nine measures of performance were considered in conjunction with 12 firm and industry descriptors for each cluster separately: a total of 108 ANOVA's per cluster. For four clusters, a small number of significant relationships were uncovered, about the same number as one would expect by chance. But for cluster D, a large number of significant relationships ($p=0.10$) were revealed.

The answer to the second question was also conclusive, but additional insights were gained into what strategy works best. For four of the strategy groups -- A,B,C and E -- there was no evidence that the new product results achieved depended on the type of firm or industry. For example, Strategy B worked well, regardless of firm or industry. But one strategy type, namely the D-type firms who practiced a Low Budget, Conservative Strategy, was the exception. Here we found that this strategy, which gave satisfactory results overall, worked particularly well for certain types of companies:

- Firms that were rated stronger than their competitors, particularly in the areas of salesforce and distribution, outperformed other firms when electing Strategy D.
- Firms in higher growth, technologically developing industries fared more poorly than other firms when choosing the D strategy.

The conclusion is that Strategy D -- the Low Budget, Conservative Strategy -- works best for stronger firms, particularly in the marketing area, and for firms in low growth, technologically mature industries. Note, however, that these results were still inferior to our top performing Strategy B companies.

Perhaps the most dramatic conclusion of this last analysis is that the Balanced Strategy gave consistently positive results, regardless of firm or industry type. This Balanced Strategy, then, appears to be a **universally applicable** strategy, suitable for all types of firms and industries.

CONCLUSION

New product strategy and performance are intimately linked. The results of our study show that different strategy groups or scenarios had quite different new product performance results. One must be careful, of course, not to draw conclusions about causality; only association has been demonstrated here. Nonetheless, one elite group, which we called the Balanced Strategy, achieved exceptional results, scoring first on virtually every performance measure. Certainly this group of firms merits a closer look.

The profiles of these five strategy scenarios gave clues as to what makes for a winner. But only when we looked at the distinguishing characteristics of the elite group did we gain an understanding of what strategies successful companies shared, and what set them apart from other firms. First, the top performers shared a unique orientation: a marriage of technological prowess and a strong market orientation, coupled with a highly focused program. And second, they selected certain types of products and markets for their product innovation effort. These market and product types were listed in the article, and become useful guides to others in the selection and evaluation of business arenas or even new product projects.

This Balanced Strategy is one ideal that many firms may wish to emulate. Note that we found that, while certain firm and industry characteristics did affect outcomes, electing this Balanced Strategy also had a strong and independent link to performance. These results reinforce the message that a sound new product strategy pays off. We also found that this Balanced Strategy was a universally applicable one, yielding positive results regardless of firm or industry type. And finally, Strategy B is reasonable and feasible. We know it is so, simply because a group of firms from different industries successfully implemented the Balanced Strategy and won!

* * * * *

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