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THE PRODUCT DEVELOPMENT CHARTER
-- A STRATEGIC PLANNING SPIN-OFF

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The Product Development Charter

--a strategic planning spin-off

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Business management historians will note the 1970s for several important changes -- response to social pressures, a new legislative and regulatory influence, the conversion of the computer to a full operating mode, and others. But they may well find that the most revolutionary change, and the one which actually has permitted the others, was the acceptance and implementation of strategic planning. It took a unique combination of causal and permissive forces of recent years to bring planning and planners to sudden preeminence and success. No business of any economic, social, or political significance can be optimally managed today without strategic planning, and the science is meeting the challenge.¹

The special needs of product innovation

Perhaps the most appreciative constituency for the outputs of strategic planning is that subset of personnel who have important roles in the creation of new products. Being multifunctional in operation, they lack the organizational unity of purpose and direction enjoyed by, say, a sales force or a factory. Informal, "back-of-the-envelope" planning styles often leave multifunctional

¹The literature on strategic planning is rapidly mounting, and is impossible to cite in total. However, several of the better sources are Abell (1), Day (9), Hedley (15, 16), Laric & Jain (19), Rothschild (25), and Hanan (13). Boyd and Larreche (7) not only give an excellent summary but include the most complete bibliography.

processes unplanned, and this has been the bane of most new product development prior to recent years.²

There are exceptions, where sound processes have been possible without strategic planning. One is where a chief executive or operations officer has been de facto head of development -- e.g. a Land/Polaroid, a Wilson/Xerox, an Iacocca/Ford, a Gen. Sarnoff/RCA. Other exceptions are the small firm and the really independent profit centers of 3M or GE.

With today's strategic planning technology, however, it now seems that any firm can give its product development an integrated, goal-oriented character. The key is a set of objectives and plans which has yet to acquire a name, but which is a spin-off of the strategic planning process, and will here be called the Product Innovation Charter (PIC).

Such charters are found at both the corporate level and the business unit level, since product innovation takes place at both. In fact, a complete PIC gives direction to product innovation at all four levels:

1. New businesses -- both market and technology
2. Extended businesses -- new in either market or technology
3. Extended lines -- same markets and technologies
4. Improved products -- costs, qualities, etc.

²Several researchers have begun to address the subject of new product strategy in a serious way. Their thinking helped stimulate the current research project. See Andrews (3), Freeman (11), Hopkins (17), Nystrom (24), Steele (27), and Twiss (29).

The first is a corporate activity, the second a business unit activity, the third a program manager activity, and the fourth a product manager activity.

It is the purpose of this article to report on the research which disclosed the presence of these product innovation charters, and to document the various dimensions companies are putting on them.

Background of this report

The essential elements of a product innovation charter are not new. The steel industry's early disdain for plastics, Henry Ford's "black" Model A's, Levitt's "Marketing Myopia," Ansoff & Stewart's timing strategies, etc., are suggestive of the wide range of corporate decisions and the analytically brilliant research studies which were essential preludes to a product innovation charter. Each such activity spoke to one of the charter's elements.

In the past two or three years, however, we have seen increasingly frequent references to company decisions which are much more comprehensive statements of plan and policy than were the simplistic rules of earlier years.

Unfortunately, new product strategy is one of a firm's most confidential areas, so published press reports are presumed to be incomplete and perhaps even deliberately misleading. Likewise, even though they yield fuller details than press reports, field interviews suffer from competitive disclosure restraints too.

However, enough information is now emerging so that we can see the skeleton of these confidential charters which are created by strategic planning. As in the game of Battleship, we've had enough

"hits" to show the outline of topics and directions, even though the specifics may be undisclosed.

Several hundred business press reports of companies' new product strategies were studied, and seventy-one were found which yielded enough detail for patterns to be discerned.³ These reports were combined with fifty-four field interviews over the period 1976-78 to yield partial charters for 125 firms. All are profit-making organizations, although the research program disclosed that such government units as state lotteries and schools of business have also reported new service planning in a similar mode, but these reports have not occurred in sufficient frequency to yield solid patterns. Perhaps not enough non-profit organizations have yet adopted overall strategic planning.

The most significant output of this research is the disclosure that one document can give comprehensive direction to all of a firm's new product activities. In the past, a policy may have cited a market to be served ("Babies are our . . .") or the quality level ("When better cars are built . . .") or the organization mode (P&G's brand system) or commitment to technical innovation (RCA, IBM). But now it appears companies are pulling these all together, and are adding licensing, budgeting, staffing, contingency planning, cash cows, psychographic segmentation -- the complete bundle of policies and actions which will produce that particular flow of product innovation which optimizes the firm's profits. Product Innovation

³They cannot all be cited here, but four of the most complete are Engel (10), Loctite (21), Berman (5), and Hallmark (12).

Charter is the proposed name for the planning document which does these things. Let's see what the companies are putting into it.

OUTLINE OF THE PRODUCT INNOVATION CHARTER

The 125 partial views we have been given indicate that the product innovation charter which most larger firms now use and which better-managed medium and smaller firms also use, contains the following sections.

- A. The target business arenas that product innovation is to take the firm into, or keep it in. These arenas are defined in four ways:⁴
 1. By product type (e.g., specialty chemicals, or cars and trucks)
 2. By end-user activity or function (e.g., data processing or food)
 3. By technology (e.g., fluidics or xerography)
 4. By customer or consumer group (e.g., service stations or state lotteries)

- B. The goals or objectives for that subset of activities which firms call by different names but which here is called product innovation.
 1. The quantitative results to be achieved by the program:
 - a. Market share, or position of leadership⁵
 - b. Sales volume: usually dollars, usually with growth goals
 - c. Profit level: total dollars, ROI, payback, percent on sales, short-term/long-term
 - d. A minimum or maximum number of new items to be marketed each year.

⁴The proper manner of defining business targets has been the subject of considerable debate, though most of the controversy concerns the portfolio of present products. Abell (1) gives a good discussion of the problem, and the classification used here follows his thinking. See also Boyd and Larreche (7), pp. 46-60.

⁵Again, the literature on market-share strategy is extensive. See Boyd and Larreche (7), Buzzell et al. (8), Bloom and Kotler (6), and Staff (26).

2. Special qualitative goals or objectives peculiar to the firm's unique situation. These most commonly relate to:

- a. Sense of urgency or crisis
- b. Diversification
- c. Fill out a line
- d. Image, to maintain or to seek
- e. Protect a position
- f. Smoothing out of various irregularities

C. The program of activities chosen to achieve the goals in Section B above.

1. Strengths to exploit, usually one or more of three types:

- a. R & D skill or capability, (e.g., glass technology)
- b. A manufacturing facility, process, skill, or material (e.g., food processing, or wood chips)
- c. A marketing advantage (e.g., a strong sales force, an image, or a trade franchise)

2. Weaknesses to avoid; usually one or more of the same list as above -- avoid a particular R & D investment, avoid building a particular facility, avoid the government market

3. Source of the innovation; that is, will the new product's points of differentiation be developed:

- a. Internally (by R & D, marketing, etc.)
- b. Externally (by acquiring companies, products, or processes)
- c. By a deliberate combination of both, one variation of which is the joint venture

4. Degree of innovativeness sought, if any. Here the the Ansoff & Steward paradigm of over ten years ago

fits every decision I have encountered, though the terms vary today.⁶

- a. Inventive. Technological leadership, whether product, package, service, positioning, or whatever. Be "first to market" with it.
 - b. Adaptive. Lay back, let others lead; adapt or modify; use "innovative imitation"; be "second but best."
 - c. Economic. Build strength by producing what others have created, but do it more economically. The low-cost producer, typically in the early maturity phase of a life-cycle.
 - d. Innovative applications. Utilize established technology but apply it creatively to new uses (e.g., adhesives, or MOS technology).
5. Functional dependence, if any; stipulating whether the PIC is essentially a charge to the technical departments or to marketing. Some firms cite such an emphasis and some don't, but it probably is always there, even if unspoken.
6. Special conditions, restrictions, mandates. Highly situational, but not miscellaneous or casual. Special instructions to the innovation team.
- a. Product quality level, usually a stipulation of high quality, for protecting an image, or for trading one up
 - b. Level of risk that is acceptable
 - c. Seek low-volume niches, for "quiet" intrusions
 - d. Serve "real" or "genuine" needs only
 - e. Size or growth trends in markets being considered, coming from the strategic planning matrices
 - f. Avoiding or specifically confronting particular competitors
 - g. Low-cost, repeat buying product categories

⁶The Ansoff and Stewart reference (4) is in the Bibliography. Others have also offered paradigms in this area: Twiss (29), Steele (27), Freeman (11), and Andrews (3).

- h. Avoiding regulatory or social problems
- i. Patentability, if absolutely critical
- j. Key to systems of products, or products and services
- k. Avoid systems of products

A hypothetical example

Although many examples will be given later to document and explain these outline items, it is important to see the product innovation charter as an entity. It apparently gains its effectiveness by giving integration to otherwise isolated and inconsistent decisions.

Here is a hypothetical product innovation charter, in abbreviated form:

The XYZ Company is committed to a program of innovation in specialty chemicals, as utilized in the automobile and other metal finishing businesses, to the extent that we will become the market-share leader in that market, and will achieve at least 35 percent ROI from that program on a three-year payout basis. We seek recognition as the most technically competent company in metal finishing.

These goals will be achieved by building on our current R&D skills and by embellishing them as necessary, so as to produce new items that are demonstrably superior technically, in-house, and with only emergency reliance on outside sources. The Company is willing to invest funds as necessary, to achieve these technical breakthroughs, even though 1980 and 1981 IAT's may suffer.

Care will be taken to establish patent-protected positions in these new developments, and to increase the safety of customer company personnel.

The PIC versus a screening check-list

The reader will recognize several of the items listed above in the Product Innovation Charter as similar to those found on many check-lists used in screening new product ideas. This is not

surprising, since a check-list should come from the PIC. However, it can come without one, too. For example, one recent source⁷ lists the following criteria as used by a chemical company to test each new proposal:

1. Do we have market place skills?
2. Is there patent protection?
3. Does it match our manufacturing capability?
4. Do we have the raw material?
5. Is the market large enough?

These are passive, or reactive criteria; they do not stipulate positive direction. A PIC would point out certain product areas or certain customer functions, etc., where one could say, a priori, that there would likely be a good fit. Furthermore, the list doesn't differentiate between the factors, whereas a regression analysis on past developments would probably show one criterion as more important to exploit than the others. Finally, the list omits many other PIC factors, although an appended paragraph did urge inventiveness as superior to adaptation.

A product innovation charter charts a course; it says "Go this way, and do these things -- they offer the best bet for optimizing profits." It constitutes far more in terms of managerial direction than does a check-list and avoids the details necessarily present in an idea evaluating procedure.

⁷See Hopkins (17). In addition, Merrifield (22) offered a check-list which he recommended be used somewhat as a limited version of this report's product innovation charter.

RESEARCH FINDINGS

Remembering that companies release only parts of any existing product innovation charters, we can look now at the data collected on the 125 firms.

Types of Firms Studied

Table 1 describes the firms. They are a mixture of large and small, and industrial and consumer but since the PIC is developed for each separate business unit, its size is sometimes difficult to estimate. Most deal in products.

Target Business Arenas

Table 2 shows the information, tabulated according to the above PIC outline, as it was collected from the available sources. First of all, it is apparent that company strategists have the same problems in defining target arenas as have recent students of strategy. Although thirty-five disclosed no arena statement, Table 2 shows that 36.8 percent define their new product activity arena in terms of products. Planning specialists have argued against this, but apparently many firms are satisfied with highly institutionalized industry practices; others report that they use a product definition simply because it is effective for them. Cars, chemicals, banking services (constrained by law), pharmaceuticals, womens wear, appliances, beer, and tape labels are examples. Some definitions that would seem to be keyed to products are actually based on an activity, and were so classified here -- e.g., food, cosmetics, and cutting tools.

The most common nonproduct definition, by far, is that of the end-user's function or activity. Marketing Myopia has had impact.

Terms such as data processing, measuring electricity, preparing coal, controlling machine tools, and law enforcement clearly indicate the validity of this need orientation.

Surprising, perhaps, is that only 11.2 percent of the firms say they use a definition based on technology. Again, we may have a problem of competitive disclosure here, but several of the most meaningful directions came when firms combined technology with function -- e.g., electronic games, electro-mechanical devices for cardiovascular treatment, or xerography in education.

Equally surprising was the small number of firms (fourteen, or 11.2 percent) who say they find a specific customer or consumer orientation helpful. Actually, four of those few were orienting to trade groups (e.g., beauty and barber shops and company-owned service stations) and two were using quite unique groups (outdoor people, and operators of state lotteries). One is no longer operative (Gerber's babies) and one is brand-new (Winchester's gun owners).

Table 1

FIRMS IN THE SAMPLE

	Number	Percentage
Markets:		
Primarily industrial	57	
Primarily consumer	<u>68</u>	
Total	125	100.0
Size:		
Large, or closely integrated divisions of large	72	
Medium, small, or independent divisions	<u>53</u>	
Total	125	100.0
Output:		
Products	116	
Services	<u>9</u>	
Total	125	100.0

All are in the United States and all are profit-making organizations.

Table 2

QUANTIFIABLE PORTIONS OF PRODUCT INNOVATION CHARTERS		
	Number	Percentage
A. Target business arena, defined by:		
Product type	46	36.8
Function/activity	32	25.6
Technology	14	11.2
Customer/consumer	14	11.2
Not disclosed	35	28.0
Total Firms Studied	<u>125*</u>	<u>112.8*</u>
B. Goals of the program		
1. Quantitative		
(So few firms disclose this information that no tabulation can be offered in this time.)		
2. Qualitative (Voluntarily cited, not a check-list response)		
a. Sense of urgency or crisis	8	6.4
b. Diversification	6	4.8
c. Fill out a line	6	4.8
d. Image, seek or maintain	3	2.4
e. Protect a position	3	2.4
f. Smoothing out irregularities	2	1.6
g. None cited	99	79.2
Total Firms Studied	<u>125*</u>	<u>101.6*</u>
C. Program to Achieve Above Goals		
1. Strengths to Exploit:		
R & D skill or capability	69	55.2
Manufacturing capability	47	37.6
Marketing capability	29	23.2
None cited	24	19.2
Total Firms Studied	<u>125*</u>	<u>135.2*</u>
2. Weaknesses to avoid:		
Too few are released to tabulate		
3. Source of the Innovation:		
Internal only	72	57.6
External only	5	4.0
Both	39	31.2
Not Cited	9	7.2
Total Firms Studied	<u>125</u>	<u>100.0</u>

Table 2 continued

QUANTIFIABLE PORTIONS OF PRODUCT INNOVATION CHARTERS		
	Number	Percentage
4. Innovativeness		
Inventive	57	45.6
Adaptive	68	54.4
Economic	20	16.0
Innovative Applications	28	22.4
Not Cited	9	7.2
Total Firms Studied	125*	145.6*
5. Functional Dependence		
Technical	55	44.0
Marketing	46	36.8
Both	10	8.0
Not Cited	14	11.2
Total Firms Studied	125	100.0
6. Special Conditions, Restrictions, Mandates:		
Product quality level	27	21.6
Restricted risk level	20	16.0
Seek low-volume niches	8	6.4
Serve "real" needs only	7	5.6
Large or growing markets	7	5.6
Avoiding specific competitors	6	4.8
Low-cost, repeat products	3	2.4
Avoid regulating or social problems	3	2.4
Patentability mandatory	2	1.6
Strive for systems	2	1.6
Avoid systems	2	1.6
None cited	46	36.8
Total Firms Studied	125*	106.4*

*Some firms utilize more than one of the items listed.

Goals: The Quantitative and Qualitative Results to be Achieved

It is quite apparent, particularly from the personal interviews, that managements are divided on the question of how to state goals for the product innovation function. Most such goals are highly confidential, but the formats used can be, and are, reported. See Table 2.

They take several forms:

1. The traditional sales gap goal of closing the gap between planning objectives and an extension of current sales lines. This is more a concept than a specific dollar target, because the gap changes with every forecast and every new product addition. Stressing growth is common.
2. Some expression of profit, in many forms. Again, usually a gap concept, and again, not a good control tool, partly because it changes and partly because cost-allocation practices can have such an impact upon it.
3. A first-level surrogate for profit, a combination of "large or growing markets" and a "large or leading share." Given these, the profit should follow. Loctite, Sarns, Iroquois Brands, Keithley, Jovan, Rucker, Stauffer, Texas Instruments, and Gould are firms in which the Boston Consulting Group market share concept is claimed to be operational.
4. A second-level surrogate, by far the most common, is to have as a goal the exploitation of some company strength, the premise being that working from a strength should yield a good market share, which in turn will yield good profits. This approach takes us into the activity or program phase, below.
5. Special situational goals. There is no end to the variety, but the more common ones are:

1. Urgency, some firms face situations where new products are urgently essential, for example to avoid a take over.
2. Diversification away from a high risk or limiting situation: Hoover Ball and Midland Adhesive both seek products which will relieve them from auto dependence.
3. Offer a complete line: Frito-Lay, a large NYC bank, and Digital Equipment are examples. NCR built its turn around on this idea.
4. Alter or strengthen an image: Waterford Glass, Texas Instruments, and Cincinnatti Milacron are examples.
5. A few goals are defensive, usually involving the protection of a profitable market position or adding a seasonal pattern which complements one already faced. Hallmark targets the latter, but is finding it extremely difficult.

Program of Activities: Strengths to Exploit

Managements are increasingly using the term technology in its broad sense to mean any system or set of operations, skills, or activities which constitute a capability: Rockwell's engineering skill constitutes a technology in the traditional sense, and they clearly plan to exploit it. But we discovered many others:

GE's Carbology Division - tungsten carbide

Hallmark - creative processes and skills

Gelman - membrane filtration

Chrysler's Govt. Div. - systems engineering

Potlatch - high graphics

Rucker - oil well technology

Helena Rubenstein - science of cosmetology

Remington - powdered metals

Apparently one major payoff of strategic planning is the creative visualization of resource technologies, because they show up in so many product innovation charters. Table 2 shows that R & D technology is the most favored skill to build on. If a firm has no exploitable technology it often moves to acquire one, as a computer firm, a chemical firm, and a small bank say they are doing as part of their product innovation charters.

Some strengths are not R & D technologies, but can also be exploited. Thirty-eight percent cite a manufacturing skill and 23.2% a marketing capability. Pillsbury has a strong supermarket franchise, a dental sundries firm has a strong dental sales force, P&G has high-volume TV purchasing discounts, Tressler oil has service stations, Chelsea Milling has a unique franchise as a push-marketer, and Standard Brands is using its Planters brand to seek a stronger position in snacks.

Apparently most firms feel they have exploitable strengths, though results would dispute their claims sometimes. And some of the most clever exploitation strategies were probably not disclosed to us. Even so, the range is impressive.

Program of Activities: Weaknesses to Avoid

Managements are reluctant to discuss weaknesses with outsiders, even in personal interviews, and press reports rarely offer specifics. But examples were found. An engineering firm knows it has a weak marketing operation so has listed "no strong marketing required" as a key criterion. A bank decided it really had no creative skills, so adopted a strategy of finding new services introduced by other banks. Several firms have a dollar shortage so have stipulated a low R&D cost requirement. We can presume there are many more such "quiet" strategies.

Program of Activities: Degree of Innovation

It was reassuring in this study to find that writers of Product Innovation Charters have recognized the importance of declaring the degree of product innovativeness one wishes to use. Table 2 shows that in only 7.2% of the firms studied were we unable to identify the degree of innovativeness decreed.

The reader needs to be reminded at this point that slightly over half of the firms studied supplied their data through the business press, and it's more satisfying to discuss one's new and exciting policy of technical excellence than a commitment to be a low-cost imitator of such a firm. Reporters share these feelings. So there is certainly some bias in the figures of Table 2 and we simply do not know how much.

Given that, we can see that 45.6% claim to be invention-bent, 54.4% adaptive, and 16.0% economic (low cost); about a fifth are in a unique situation where they can avoid the risks of invention by sticking to a known technology but still be more than adaptive in

seeking new applications for it. Loctite is the classic firm here, using what is customarily called innovative applications.

As the percentages indicate, some firms do follow more than one of these routes, inventive and adaptive being the most common combination at 12.5%. No other combination comes close to that.

Another less evident characteristic of this particular data set is that the reports are only snap shots of moving scenes. The charters are only temporary in many cases, and most of the firms interviewed referred to pasts or futures where commitments had been or would be different. Japanese firms, though not in this study, dramatize this point. They adopted an economic strategy during the 1950s, progressed into adaptive strategies as resources permitted or labor costs required, and now are often inventive, especially in markets where they have become leaders.

We suspect that many United States firms have followed the same progression, though some who started out as inventive stayed there (Hewlett Packard) and some who started out inventive gradually became adaptive (Sycor).⁸

Program of Activities: Source of Innovation

It can be seen in Table 2 that most of the firms studied have decided to only seek new products internally, and most of the others combine the internal and external route.

⁸These changes caused by the firm's life cycle should not be confused with the effect of a product category life cycle. Harper (14) offers some thoughts on the latter aspect.

However, personal discussions indicated that there are actually several alternative strategies on this factor.

1. No new products. This strategy takes two forms. One is simply to avoid R&D expenditures. The other is to budget R&D for only those product improvements which cut production costs. This may well call for innovation in material or in manufacturing, and also appears to be integral to most of the new product strategies below. This report concentrates on product innovation, not manufacturing innovation, and the firms interviewed had no difficulty keeping the two separate.
2. New products, but no innovation. Betty Dain, most local banks, Tressler Oil, a food company, and an auto parts firm all want products that are new to them but that are not at all innovative. This approach relates to the economic strategy of low-cost production or to that of serving the needs of a narrow captive market.
3. Innovative products developed totally inside. This strategy calls for a strong R&D program with no interest in outside sources. Some highly technical firms such as Hewlett-Packard and IBM use this approach, but so do such consumer firms as Revlon and Pillsbury.
4. A general policy of seeking internal innovations but with a willingness to take advantage of outside opportunities, particularly licensing. DuPont, Sybron, and Upjohn follow this approach.

5. A policy of some inside technical and/or marketing innovation, but principal reliance on outside sources. A large technical machinery firm has a small engineering department, but mainly licenses developments found in Europe.
6. Essentially a policy of licensing or acquisitions. One of the large chemical conglomerates has this policy, even though a corporate research laboratory exists. They buy a company, integrate what they want, and spin off the rest. Many medium and smaller firms apparently have no R&D or engineering, but welcome new products, so anything they market will be what they pick up outside.

Program of Activities: Functional Dominance

Table 2 shows the results of attempts on our part to identify the side of the business--technical or marketing--which will carry the primary burden for the new product innovations. As might be expected, the technical side leads, 44.0 percent to 36.8 percent, but some will be surprised at the high standing for marketing.

Program of Activities: Special Conditions, Restrictions, Mandates

Several special provisos cited in Table 2 came up so frequently in this investigation that they must be in wide use. The first, mentioned by twenty-seven firms relates to product quality level.

Only one firm actually indicated a goal of low quality, a well-known high-quality firm which is attempting to tap the low end of its market, but twenty-six specifically said their new product goals could only be met by products of high quality. Names like Campbell, Parke Davis, Gerber, and Hallmark have powerful consumer

franchises, and their owners do not desire to trade down. But industrial firms frequently feel the same, e.g., Sperry Univac, Allen Bradley, Brown & Sharpe, and McNally-Pittsburgh. Though not in this study, Black & Decker demonstrated the profitability of a lower quality approach when they developed a line of low-priced electrical tools for home use. Items such as an eight-hour, 1/4 inch electric drill opened a whole new market many times the size of the traditional professional market.

The second, mentioned by twenty firms, is the mandate of low-risk or conservatism in the product innovation function. Expressed in many different ways, e.g. no failures, evolutionary only, and minimal R&D dollar investment, this mandate nevertheless clearly differentiates a program from that of high-risk, chance-taking innovation. Paramount Pictures, National Semiconductor, Milton Bradley, and General Foods are a few firms which have recently cited clearly restrictive policies. In contrast, Intel, Gould, Merck, and Bendix are firms with up-front risk expenditures.

Several special conditions appeared only six to eight times, but indications are that they are more common than the figures suggest. One is the idea of seeking market "niches", an approach frequently mentioned by American Motors management, but apparently equally important to Iroquois Brands and others. Another is the mandate to serve only "real" needs, and we would quickly understand this in the Merck charter, but it also is cited by a large bank and by the industrial leader Gould.

Then we see firms like Gillette, P & G and Dean Foods telling their developers to seek opportunities only in markets which are large or growing fast. And, of course, some managements are willing to say openly that their charter leads developers away from markets where certain competitors hold forth. IBM and P&G are often so named but it also happens on other fronts; for example, Mary Kay Cosmetics wants to avoid Avon, and Shaklee want to avoid Avon and Mary Kay. American Motors, of course, wants to avoid all three of its automotive competitors' key segments.

Lastly, there is the usual potpourri of very unique situations. Fetterolf and Merck won't touch unpatentable products; a chemical company specifically stipulated that new product decisions would be made without sentiment; a computer peripherals firm says "no systems"; Hallmark wants non-seasonal items; and Paramount claims their success rate shot up when they adopted a policy of making all their own films.

These considerations may seem almost incidental to the more important matters just discussed, but they are not incidental to the firms citing them. In each case, the stipulation was so critical that management felt everyone involved should know it.

MULTIPLE CHARTERS WITHIN A FIRM

Product innovation charters are derived directly from strategic plans and thus are found anywhere plans are found. Small firms and nondivisionalized medium-sized firms tend to operate only one business unit and thus have only one plan and need only one product innovation charter. But long before they divisionalize, they actually are operating programs quite different from each other, so

we often find multiple plans and charters within single firms or single divisions.

All of this was demonstrated in a recent Business Week article on Texas Instruments.⁹ TI has at least one "business" (MOS memories) in which their strategy is highly innovative -- internal only, inventive only, keyed to TI technologies, high risk, and probably with some very high ROI goals. But a second TI business (toys) represents an innovative application, using internal innovation with strong marketing involvement, and creating new markets for technologies already developed. A third "business" (watches, calculators) is geared to the experience curve. Costs fall and prices fall, through not necessarily in that order, and the situation is a classic example of the economic strategy.

Indications are that TI is very familiar with all of the basic alternatives, and that they develop a steadily changing mix of business arenas and activity modes according to existing conditions.

CONTRASTS WITHIN AN INDUSTRY

Several reports recently have given us the chance to compare two or more firms as they develop their unique product innovation charters within a common industry setting.

Intel versus National Semiconductor

According to Business Week, these two firms demonstrate

⁹See Texas Instruments (28). Ziemer and Maycock (32) recently described what is apparently the TI planning process.

perfectly the extreme strategies of invention versus economic.¹⁰ Robert N. Noyce, chairman of Intel Corp., is "a brilliant and outgoing scientist-entrepreneur whose reputation is built on technical breakthroughs." He has tried to find new holes in the semiconductor market by applying highly advanced technologies. He raised R&D spending during the 1975 recession. His is a high-risk, high-payout strategy. Charles E. Spork on the other hand, has generated a sales and profit bonanza at National Semiconductor with precisely the opposite approach. His goal, "achieved in almost every major line of semiconductor products, was to make National a super-efficient manufacturer of high-volume products." Both firms have a touch of the other's strategy, but the difference is dramatic.

Frito-Lay versus Nabisco versus Standard Brands

Frito-Lay has long dominated the snack market, with a strong line of fast-moving products and a highly regarded distribution system. But, Standard Brands and Nabisco also have strong distribution systems, and now threaten the traditional Frito-Lay dominance.¹¹

Nabisco is going to the research center, "experimenting with multigrain products and new textures and shapes." They say they are not going to be a me-too company. In addition, they are innovating

¹⁰See New Leaders (23). A very similar comparison of Digital Equipment Corporation and Data General can be found in Uttal (30).

¹¹See Innovators (18).

in packaging as they await the new entities, repackaging such items as Mister Salty pretzels in bags, and moving them from the cookie section to the snack section. This is short-term adaptive (improving some standard items) and innovative applications (packaging), but long-term inventive. It is in-house, and reasonably high-risk.

Standard Brands is also applying some available packaging technology (the canister approach used by P&G's Pringles), and applying the Planters name. They claim their products are superior (adaptive) but not inventive. Nor are they active in R&D according to the article. The new items were obtained by acquisition.

While Nabisco is in the lab and Standard Brands out acquiring, Frito-Lay is developing new items of its own (not inventive, however, since they feel snack inventiveness has run its course). They are also expanding production (planning on an economic strategy if necessary?) and strengthening their distribution.

The firearms business

Again, Business Week provides the setting.¹² The firearms business is a business "with tired blood," "slow or no growth," and is expected to decrease in the future. So the product innovation charters of five firms have been reviewed and changed.

Colt has opted for no innovation, choosing instead to raise prices and presumably work their way out of the market. They continue with high-quality commemorative firearms, however. Remington is trying to apply its powered metal and abrasives

¹²See Why (31).

technologies to other business arenas. Winchester, defining an arena in consumer terms, is running a gun book club and franchising gun clubs. Smith & Wesson is also taking a consumer approach, but its consumer arena is law enforcement agencies, for whom the firm is developing handcuffs, holsters, police car lights, etc. Sturm Ruger is trying to exploit its manufacturing facility (especially its foundry) by offering to produce for other, non-gun, manufacturers.

In the meantime, small firms and foreign firms are not idle in the industry. One, using the inventive approach, has developed do-it-yourself, muzzle-loading firearm kits. Another is going economic, using southern plants to assemble guns at the lowest possible cost.

SUMMARY

Strategic planning is a well accepted management tool, both at the corporate level and at the business unit level. It helps assure a coordinated and integrated action set, designed to optimize profits against any particular top management profit goal. From the strategic planning process come approved marketing plans, production schedules, financing requirements, and budgets for specific R&D projects. Lately, however, there has been a new spin-off from the planning process -- a planning document, complete with goals and actions, designed to guide the organization's various product innovation programs.

Such plans are obviously quite confidential, and outsiders are not privy to the total thinking of a firm. Managements often have occasion to reveal, or even expound at length on, selected parts of such plans, however, and by reviewing many such revelations, we can

at least learn the general makeup of such documents.

This was done as a basis for this article -- 125 firms were studied, either from complete business press reports, or from personal interviews. Their partial disclosures were combined to determine the complete contents (by topic) of what is here called the Product Innovation Charter. Such charters give clear direction to that unique subset of company activities responsible for delivering a desirable flow of product innovations. Apparently most firms now have at least some of the key pieces of product innovation charters. A few offer evidence of total charters.

This report has listed the outline of the composite charter, cited quantitative evidence on the pieces, and offered scores of examples from most of the 125 firms to explain and clarify their practices.

The report can now be used by any management to test the comprehensiveness of its own decision set on the product innovation front. Any missing pieces can be derived by a scan back through the strategic planning process used by the firm, because all of the product innovation decisions found in this study can, and should, come directly from that process. Of course, a management may find its strategic planning process incomplete on one or more of the points, indicating some planning work yet to be done.

Evidence was found in the study to suggest that governments and other nonbusiness organizations are also utilizing at least parts of the standard product innovation charter. But the data are as yet too incomplete for us to be sure, and such organizations were omitted here.

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