INDUSTRIAL MARKETING
CASES AND CONCEPTS

E. RAYMOND COREY

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My wife, Charlotte, joins me in dedicating this book to our parents:

Mr. and Mrs. Joseph Z. Corey
Mr. and Mrs. J. Howard Worrall

1
A CONCEPT OF MARKETING STRATEGY

Strategy: 1. The science or art of military command as applied to the overall planning and conduct of large-scale combat operations. Compare *tactics.* 2. A plan of action resulting from the practice of this science. 3. The art or skill of using stratagems in politics, business, courtship, or the like.[1]

As this dictionary definition of *strategy* suggests, the meaning of the word developed originally in a military context. It signified a plan for the deployment and use of military forces and matériel over a certain terrain (which might or might not be of the commander's choosing) to achieve a certain objective. A strategy had to be based on what was known of the enemy's strength and positioning, the physical characteristics of the battleground, the friendly or hostile nature of those who occupied the territory, and, of course, the strength and character of the resources that a general had at his command. Additional factors were time and the ability to anticipate changes that might significantly alter the balance of forces.

If a strategy is a plan of action, a *tactic,* according to the dictionary, is "an expedient for achieving a goal; a maneuver."[2] The execution of a plan of action is carried out tactically, that is, through a series of interrelated maneuvers. These are sometimes not planned in advance and may be in response to the unanticipated actions of opposing, as well as friendly, forces.

The analogy to business strategies is direct and useful. In business the "terrain" is the marketplace, in particular, and the economic, political, social, legal, and technological environments in general. Business resources consist of personnel, with a wide range of skills and expertise, factories, laboratories,

[1] William Morris (ed.), *The American Heritage Dictionary of the English Language* (New York: American Heritage Publishing Co., Inc./Boston: Houghton Mifflin Company, 1973), p. 1273.

[2] Ibid., p. 1309.

transportation systems, and financial assets, as well as a corporation's reputation in the community and with its customers.

As in military engagements, it is useful in business to distinguish between objectives (or goals) and strategies. An *objective* is a desired end; a *strategy* is a plan for achieving it.

There are several levels of objectives and strategies in a business enterprise. At the corporate level, objectives are often stated in terms of rates of long-term growth and return on investment, and as short-term (annual, for example) growth, profitability, and cash generation goals. At that level elements of strategy may include the definition of broad corporate purpose and direction, the mix of businesses in which the firm is engaged, and the deployment of assets across businesses to achieve stated objectives. An additional key element of a company's strategy is its financial strategy—the structure of its balance sheet, its sources of capital, and the degree of financial risk its management is willing to accept.

At the division or business level, the stated objectives are derived from overall corporate goals. The objectives of the businesses that make up an enterprise will often vary with respect to each one's target growth rates, market share goals, level of profitability, and expected cash generation. Corporate management may mark some businesses as sources of cash; others as net users of corporate resources. Businesses within the corporate portfolio are likely to vary as well in terms of degree of risk and expected rewards, with the overall portfolio balancing at some acceptable risk/reward level to achieve corporate goals.

Business-level strategies focus on the allocation of resources among the range of product/market opportunities that the business is pursuing or might conceivably undertake. Business-level strategies are typically made up of functional components:

> *A marketing strategy.* What market segments will we enter with what products? How will they be priced, distributed, and promoted? How will such marketing resources as sales-force time, promotional funds, and managerial personnel be allocated across and within product groups?[3]

[3] Borden has used the term "marketing mix" to refer to strategy formulation:

> In short, the elements of marketing programs can be combined in many ways. Or, stated another way, the "marketing mixes" for different types of products vary widely, and even for the same class of product competing companies may employ different mixes. In the course of time a company may change its marketing mix for a product, for in a dynamic world the marketer must adjust to the changing forces of the market. The search of business in any instance is to find a mix that will prove profitable. To attain this end, the various elements have to be combined in a logically integrated program to conform to market forces bearing on the individual product. . . .
>
> The marketing mix refers to the apportionment of effort, the combination, the designing, and the integration of the elements of marketing into a program or "mix" which on the basis of an appraisal of the market forces, will best achieve the objectives of an enterprise at a given time.

Neil H. Borden, "Note on Concept of the Marketing Mix," HBS Case Services No. 9-502-004 (Boston: Harvard Graduate School of Business Administration, 1957).

A manufacturing strategy. What will we make and what will we purchase from outside suppliers? How will we configure our production resources in terms of plant size, design, and location? How will we recruit, train, and manage manufacturing personnel?

A research and development strategy. Will we attempt to be a technical leader in our field or will we depend on others for new developments? Will we undertake basic or applied research? In what fields of technology will we work? What overall level of research and development (R&D) spending will we seek to sustain? How will development funds be allocated among different product/market opportunities?

A financial strategy. What capital allocations will we seek from corporate management and for what purposes? What amounts of available working capital will be invested in work-in-process and finished-goods inventories? What financial terms will we offer customers? What credit risks are we prepared to take? How will we manage payables? Cash balances?

Depending on the nature of the business, of course, there can be other dimensions of strategy as well.

Of these components, marketing strategy is at the heart of any overall business strategy. Businesses exist to deliver products to markets. To the extent that they serve this purpose well and efficiently, they grow and profit. The other components of an overall strategy (financial, manufacturing, R&D) must support the business's defined marketing missions. By the same token, the firm's marketing strategy must be appropriate to its resources and its strategies in other major areas of the business and must take into account their limitations as well. Financial resources and manufacturing facilities, for example, may and usually do impose certain constraints on the range of objectives one might attempt to achieve. Marketing strategy has to be developed within these limitations, and its success will depend significantly on the effective planning and execution of other functional strategies as well as the marketing strategy itself.

ANALYTICAL APPROACHES IN FORMULATING MARKETING STRATEGIES

By setting goals and formulating strategies, corporate- and business-level management seeks to relate the enterprise creatively and profitably to its environment. Management's analysis of external environmental factors is critical to the process, as is its objective assessment of corporate- and business-level strengths and weaknesses. Environmental analysis identifies both constraints and opportunities. Evaluation of the company's particular strengths and recognition of its weaknesses provide the basis for assessing the growth and profit potential in its existing lines of business and for selecting new business opportunities for consideration. Such an analysis and evaluation serves to screen out those possibilities which environmental trends do not favor and/or those in which the business is ill suited to engage. It allows management to concentrate on those opportunities that seem especially promising because of their growth and profitability potential and the competitive strengths the firm might count on in building a viable, long-run market position.

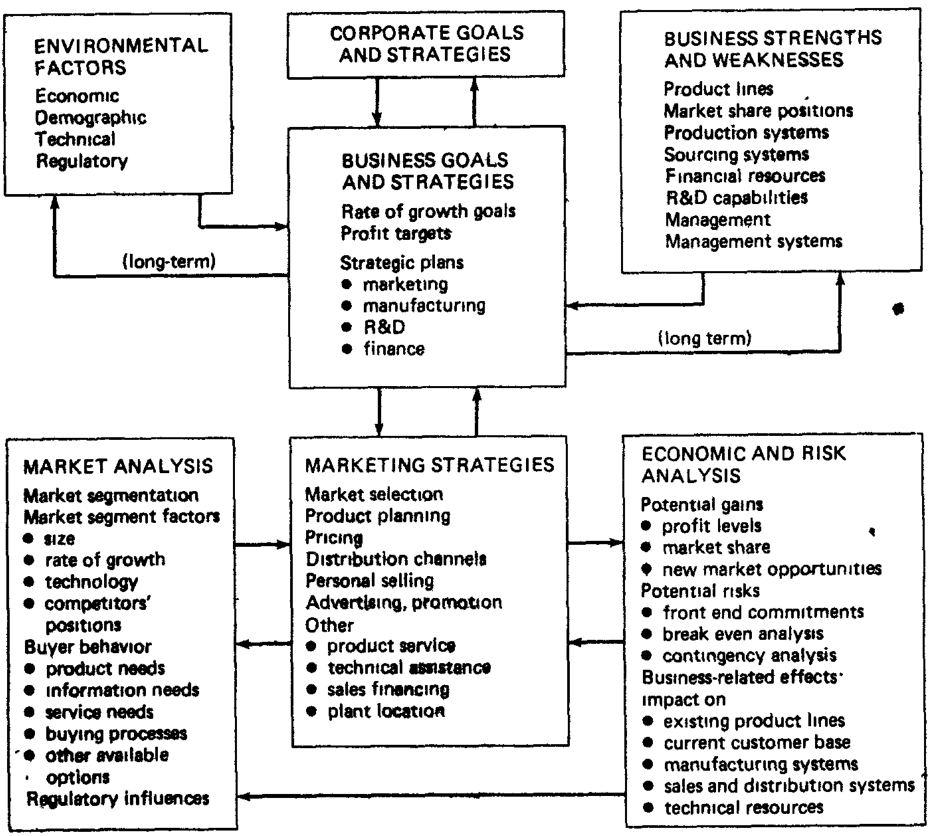
As a functional area, marketing has responsibility for the continuing assessment of existing lines of business and the identification and evaluation of new opportunities. It then falls on marketing to develop product/market strategies within the context of the total business strategy, to plan the allocation of marketing resources across product lines, and to implement its plans toward the achievement of business objectives.

In sum, the marketing planning process as depicted in Exhibit 1 involves (1) assessment of external environmental factors, (2) evaluation of the business's strengths and weaknesses, (3) identification of product/market opportunities, (4) development of possible strategies for each, and (5) evaluation of their feasibility. Each of these components is discussed briefly below.

Exhibit 1

A CONCEPT OF MARKETING STRATEGY

Strategic Marketing Planning Model



Environmental Factors

Broad categories of relevance in environmental analysis include economic, demographic, technical, and governmental factors. Which particular factors have relevance within these categories depends on the size and nature of the business and the area in which it operates. Economic considerations might include rates of inflation and tax levels in different countries, currency exchange rates, and price trends and supply limitations for key resources such as energy. Any listing of demographic factors would include such elements as population growth rates and its composition across age groups, occupations, income levels, and ethnic backgrounds. It would also include trends in the geographic distribution of population, for example, the urban/rural mix and regional shifts.

Technology trends and developments are a major focus of attention in environmental analysis. New technologies in such fields as communications, information processing, transportation, health care, manufacturing, and agriculture open up vast new opportunities at the same time that they make obsolete existing businesses based on conventional technologies. Moreover, new developments in science have significant impact on market structures as well as on the array of existing and potential competitive forces.

Witness, for example, the sudden rise of Japanese semiconductor manufacturers to a commanding global marketing position with their successful development in 1981 of the 64K RAM (random-access memory) chip (integrated circuit). Integrated circuits are critical components in a wide range of products —computers, microprocessors, and other consumer, industrial, and defense electronic equipment.

Intel, a U.S. company, had introduced the 1K RAM in 1970. The subsequent development of chips with substantially increased memory capacity, the 4K and 16K RAMS, had seemed to secure for domestic manufacturers a dominant position in this large and rapidly growing market. As of 1982, however, three Japanese companies—Hitachi, Fujitsu, and Nippon Electric—had usurped the lead, accounting for about 70% of the merchant market for the new 64K RAM. Motorola and Texas Instruments, the major U.S. contenders, held only an estimated 27% of the market for this product.[4] The prize was substantial. Industry sales of the 64K RAM were forecast to reach $2 billion, or about 10% of total semiconductor sales, by 1983.

The Japanese had opted for a superior product design strategy. They offered higher-quality chips than their American competitors. They were the first to be able to deliver large quantities in response to the high level of demand generated by original-equipment-manufacturer (OEM) purchasers of chips. To secure their market position further, the Japanese manufacturers had

[4] These percentages do not include 'captive' production of 64K RAM by such companies as IBM, Hewlett Packard, and IT&T For example, IBM estimates that it manufactured more 64K RAMs in 1981 than the rest of the world's producers combined, but these were for IBM's own use

substantially reduced the price of the 64K RAM—from $28 a chip in March 1981 to $8 in December Through technical and production advances, the Japanese have not only taken a major share of the market in the first year, they had, as well, positioned themselves favorably to lead the development of the next generation of integrated circuits, the 256K RAM [5]

The regulatory (government) environment profoundly shapes market opportunities and the attractiveness of markets both within countries and transnationally Regulation of business affects such areas as pricing, product design, plant design, location, and operation, wage rates and conditions of employment, and the number and type of competitors that will be permitted to do business within a country's borders The differential impact of government intervention creates opportunities for some market entrants and imposes disadvantages on others

The Business's Strengths and Weaknesses

What any business might count as strengths would certainly include its customer base, the breadth and quality of its product lines, its market shares in the segments in which it competes, its manufacturing complex and cost structure, research and development capabilities, customer technical service facilities, its financial resources, its reputation among customers, and the respect in which it is held by competitors Another important strength lies in its supply and resource system Does it have a broad base of reliable suppliers? Are there risks of disruptions in the supply of key materials and components? Finally, one must consider management skills and depth, organization and control systems, and managerial processes as important sources of strength—or as areas of vulnerability

Product/Market Opportunities

The key to approaching an existing business or a new area of opportunity is first to segment the market into homogeneous groups of potential customers The market segment becomes the unit of analysis. For each, one must objectively seek answers to such questions as: What are the customers' needs? What are the salient factors in the purchasing decision? How large is the market? How rapidly is it growing or could it grow if properly developed? What channels of distribution would be needed to reach it? What are the before-and-after-sales service needs? What relevant technical developments are on the horizon that could alter customer needs and the viability of existing product offerings? What legal or regulatory factors might influence what products we sell and how we market them?

Analysis of competitors is also critical: the analyses of those competitors with whom we compete directly and potential new entrants as well as those

[5] See Gene Bylinsky, "Japan's Ominous Chip Victory," *Fortune*, December 14, 1981, pp 52–57

competitors who make and sell products that we might seek to displace with other products based on new technologies. Such analysis focuses on all the same factors that one would review in assessing one's own company's strengths and weaknesses.

A factor of particular importance in one's analysis of market opportunities is the stage of market growth. Other factors—market structure, competitive forces, customer needs, market growth rates, relative profitability—are closely related to the newness or relative maturity of a market Similarly, the kinds of strategies one might formulate will vary greatly depending on whether a market is in the takeoff stage, is declining, or is at some stage in between. This observation leads us into a discussion of a critical phase of the business planning process: the development of *pro forma* strategic marketing plans for opportunities that, a priori, are attractive possibilities and the reconceptualization of strategies for existing businesses.

Product/Market Strategy Development

For any given market segment, the strategic plan would describe the nature of the product offering, that is, the basic technology, product design parameters, and composition of the product line. It would specify price levels and describe plans for product distribution, field sales, promotion and advertising, field service, and whatever other elements of strategy are relevant for the particular target market. The strategic plan would also detail, in terms of dollars and personnel, the allocation of marketing resources across these several elements of the marketing mix.

As noted earlier, market needs and competitive conditions vary markedly over the several stages of market growth, affecting the attractiveness of the market both to existing competitors and new potential entrants and conditioning the kinds of strategies one might develop and pursue.

Introductory Phase. In the early stages of market development, the market opportunity may be, and often is, based on some new technology that creates possibilities for a range of new products. The development of synthetic fibers, plastics, computers, robotics, and lasers are examples. Marketing strategies in the early stages typically stress market education—assisting industrial purchasers of new materials and components in designing the end product and in developing manufacturing processes. Market education also includes communicating with potential buyers of the new end product regarding its uses and its advantages over the conventional product it is intended to replace. In pricing and market selection the strategy is often to skim, that is, to charge high prices to customer groups for whom the product has high value. That practice generates high margins with which to amortize research and development costs as well as to fund the high costs of technical market development, namely, application engineering. At this stage the market tends to be relatively insensitive to price if the new product offers significant advantages over what it replaces.

The basic objective is to create *primary demand,* that is, to maximize total demand for the new product category by supplanting as fully and rapidly as possible the share of market volume held by the traditional products with which the new product competes. At this stage the innovating firm may possibly have a legal monopoly through patent protection, and the market it creates will be its alone, ensuring profitable growth.

Rapid-Growth Phase. As the new product concept takes hold, market conditions change markedly. Buyers become more discriminating and sophisticated in their purchasing behavior and product-use patterns. Depending on the product, they may demand product forms tailored to their individual requirements As competitors enter the market, potential customers become aware of growing options with regard to price, quality, product form, and brand. The existence of options at this stage tends to prolong the need for buyer education, particularly at the point of purchase, where choices must ultimately be made. Typically, new market segments emerge, often differentiated by the way each uses the new product as well as by buying behavior.

The innovating firm and its new competitors may at this stage focus on the expansion of primary demand, which all may enjoy. Their strategies for doing so typically take the form of product proliferation: the development of a variety of product forms to meet the specific needs of newly identified market segments. In this phase, market skimming continues to be profitable. As product prices are gradually reduced, the new product comes into direct competition with lower-priced traditional products, market potential broadens, and unit manufacturing costs may decline to more than compensate for the effect of price reductions on profitability.

Leveling-Off Stage. At some point strategic concentration on developing primary demand shifts to an emphasis on the maximization of *selective demand.* Having worked together to make the pie as large as possible, each competitor now works to claim as large a piece of the pie for itself as possible.

Strategies for holding or expanding individual market shares at this stage often stress the expansion of distribution systems to get wide market exposure. Product strategy focuses on achieving maximum differentiation to provide degrees of freedom in pricing and to establish a brand franchise in the customers' eyes. Product lines tend to broaden as well, to meet customer needs and to maximize returns from marketing investments in sales forces and distribution systems. Thus, evolving strategy responds to growing buyer emphasis on tailored-to-use products, ease of purchase, and supply availability, and strategy reflects buyers' growing sensitivity to market communications in all forms.

Market Maturity. In a mature market the structure of the supply industry has taken shape. A few firms have staked out major shares of the market; marginal firms have lost out in the race for market dominance and must adjust to follower roles. At this point, if not before, the strategies of the leaders and followers typically diverge.

The goal of the few market leaders is primarily to preserve and, if possible, to expand market share. Their strategies reflect a striving for broadened sales volume sometimes but not always by means of low prices. In addition, they stress service to their channels of distribution and user-customers, and they emphasize their technical leadership in order to develop a preferential position with their customer bases and to gain a product edge. A related objective is to optimize both manufacturing and marketing costs by attaining a level of *critical mass*[6] in both areas.

Market leaders, especially in the maturity stage, exhibit a strong sense of "territorial imperative." They often stake out particular accounts, channels of distribution, and customer groups and defend these vigorously from competitive attack, by service and pricing actions. At the same time, the dominant firms demonstrate a high degree of strategic interdependency. That is, each develops its own strategy in such areas as price, product, technical service, and promotion in clear recognition of its competitors' strategies. In particular, decisions to add new plant capacity are significantly influenced by competitors' plant capacity additions. Providing for maintenance of the firm's share of total productive capacity is often seen as essential for preserving its share of market.

At this point leading firms are especially vulnerable to the introduction of new technologies by competitors, which may render obsolete the technologies on which their product lines are based. Often, these new developments come from outside the industry, bring with them new sets of competitors, and require new norms of industry behavior.

Existing major competitors often find it difficult to respond to new technical and competitive threats because to do so often means the abandonment of the old technology, of investments in manufacturing facilities, and of distribution systems. Further, a switch to new technology will typically result in self-competitive cannibalization of profitable sales of existing products. Finally, and most difficult, quickly adopting the new technology means abandoning psychological commitments to the patterns of past success and to the business systems that have been built up around the manufacture, distribution, and marketing of the product.

The smaller companies in an industry, by contrast, are intent primarily on survival. Typically, they lack the resources to fund extensive product development and promotional programs. Typically, their key to survival is to target a specific market segment and concentrate on serving it well. The target mar-

[6] The concept of critical mass is based on the idea that unit costs are, to a significant extent, a function of the total size of the operation. Unit costs will decline up to a point as plant size increases or as the marketing effort increases in scale. Beyond that theoretical point, scale economies may improve only modestly if at all with an increased scale of operation and might reverse, in fact, as limits are reached in plant capacity and in the capacity of management to implement strategies. The concept also recognizes that the level of critical mass will vary considerably from one product to another, depending on process technology on the manufacturing side and, on the marketing side, depending on the levels of sales, advertising, and field service expenditures which are required to market the product effectively.

ket should be one to which the company can bring some particular strengths and one that does not require an unrealistically large critical mass of resources in such areas as manufacturing, research, and marketing. In fact, how profitable a follower may be is likely to depend on its ability to operate with low overheads and "no frills."

For the follower, new technical developments may mean new opportunity, if not salvation. Such new developments create the potential for taking market share from large entrenched competitors intent on preserving what they have. This risk of making obsolete investments in the old technology, manufacturing plants, and marketing systems may not be outweighed by the possibility of gain from moving quickly to embrace the new technology. What differentiates the leaders and followers in this respect, then, is essentially their perceptions of relative risk and gain as well as their psychological commitments to past successes and existing systems.

The product/market life cycle described above implies a degree of inevitability analogous to the life cycle of living organisms. In fact, external events as well as the strategies and market investments of key competitors may considerably alter the "inevitable" pattern of market growth and decay. On the one hand, significant product failures in the early stages may serve to abort the birth. In the latter stages, on the other hand, significant price reductions and/or marketing investments may be the key to tapping new pockets of demand, just as drilling to greater depths or using secondary recovery techniques may restimulate production from an old oil well.[7]

Feasibility of Strategic Plans

Essentially, in conducting a strategy feasibility assessment, management attempts to measure the levels of commitment required by a product/market opportunity against estimates of potential rewards or profits. Typically, certain fixed commitments must be incurred long before any returns are realized: such commitments as investments in research and development, market studies, production facilities, and equipment; perhaps sales organizations and promotional outlays. One needs to identify these costs and then to assess the feasibility of recouping these outlays based on estimates of market size, forecasts of sales volume, and calculations of the amount that each unit sold might contribute to amortizing the front-end investments. This is break-even analysis, a basic technique for evaluating marketing opportunities; it is described in an appendix to this book.

A key calculation in break-even analysis is an estimate of the size of the total market and of the likely share of market one might claim if the market-

[7] A useful description and critique of the use of the product life cycle concept in strategic marketing planning is to be found in Fred D. Wiersema, "Linking Marketing and Corporate Planning Issues in Strategic Marketing," 1981 Working Paper series (Boston: Division of Research, Harvard Graduate School of Business Administration, 1981).

ing program is well conceived and effectively executed. Such a calculation must, of course, take the strength of potential competitors into account. One would be wise, then, to develop estimates of competitors' cost factors from what is known of their manufacturing processes, the strength of their distribution systems, and their access to, and share positions in, relevant markets.

An economic analyst must take into account positive and negative impacts on existing lines of business and their customer bases. It may be that some new product offering will seriously cut into (cannibalize) sales of existing lines or, conversely, will complement existing products and enhance their sales potential In the case of IBM, for example, offering low-price, desktop computers could cannibalize sales of large, higher-margin central processing units. But providing a network architecture which facilitates communications between these products and larger systems could enhance the sales of both the small and large units.

An economic analyst might usefully recognize, as well, the follow-on opportunities that may open up with entry into a new market and/or the launching of a new product. Through the move company personnel may gain experience with some new and rapidly developing technology out of which may come a wide range of other product/market opportunities. Similarly, the new venture may give the company access to a whole new set of customers whose needs could open up other new product/market opportunities.

Finally, it is important in assessing strategic plans to identify clearly the key assumptions on which the plans are based—assumptions about market demand levels, price levels, competitive responses, and cost factors. It is prudent as well to pose the question: "What could go wrong?" An assessment of individual key assumptions and contingency factors provides the basis for gauging risk and estimating the sensitivity of projected outcomes to errors in calculations.

Strategic planning is an iterative process. Market analysis leads to the formulation of strategic scenarios, which in turn may be tested through economic analysis. Economic analysis is then likely to lead to revisions in strategy, which may in turn be tested to assess its viability given what is known about the market and competition.

At higher levels the assessment of strategic market opportunities in the light of available resources, the business's strengths and weaknesses, and environmental trends lead often to recasting overall business goals and strategies. Such realignment, in turn, influences corporate directions.

For the longer term, the success of the individual firm's strategic programs is likely to reshape its strength/weakness profile and to change factors in its business environment. Growth and change then broaden the range of strategic options that one may consider in reshaping business goals and strategies.

1 Ontario Engineering Limited*

> Our situation is made difficult because we are involved in two different kinds of activities—manufacturing and wholesaling We manufacture sheet metal products for the heating and ventilating industry, but these account for only 35% of our total sales volume Most of our remaining volume is made up of other heating and air conditioning equipment that we don't manufacture, but do buy and resell as wholesalers Because we act as wholesalers for a full line of heating and air conditioning equipment, most other wholesalers won't stock our manufactured sheet metal products We are their competitors!

So spoke Mr Paul Kirkpatrick as he pondered the future course of his company in October 1980 As President of Ontario Engineering Limited, Mr Kirkpatrick also assumed responsibility for its marketing activities He was particularly concerned about Ontario Engineering's declining profit position in recent years, and felt that at least part of the answer to this problem may lie in making some basic changes in marketing He continued

> There are at least two alternatives we can consider Both involve sheet metal manufacturing Our production facilities are presently operating far below capacity We have both the plant and warehousing facilities to double our existing sheet metal volume without any additional investment The first alternative is therefore to get our volume up to an efficient level But that won't be easy to accomplish Competition is severe, and it's evident that our present marketing setup can't achieve the necessary volume unless changes are made Second, we might get out of the manufacturing end of the business entirely, and concentrate our efforts exclusively on wholesaling

* This is a revised version of a case originally prepared by Professor R E M Nourse, University of Western Ontario