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How Competitive Forces Shape Strategy

Michael E. Porter (1979)

The essence of strategy formulation is coping with competition. Yet it is easy to view competition too narrowly and too pessimistically. While one sometimes hears executives complaining to the contrary, intense competition in an industry is neither coincidence nor bad luck.

Moreover, in the fight for market share, competition is not manifested only in the other players. Rather, competition in an industry is rooted in its underlying economics, and competitive forces exist that go well beyond the established combatants in a particular industry. Customers, suppliers, potential entrants, and substitute products are all competitors that may be more or less prominent or active depending on the industry.

The state of competition in an industry depends on five basic forces, which are diagrammed in the Exhibit. The collective strength of these forces determines the ultimate profit potential of an industry. It ranges from *intense* in industries like tires, metal cans, and steel, where no company earns spectacular returns on investment, to *mild* in industries like oil field services and equipment, soft drinks, and toiletries, where there is room for quite high returns.



In the economists' "perfectly competitive" industry, jockeying for position is unbridled and entry to the industry very easy. This kind of industry structure, of course, offers the worst prospect for long-run profitability. The weaker the forces collectively, however, the greater the opportunity for superior performance.

Whatever their collective strength, the corporate strategist's goal is to find a position in the industry where his or her company can best defend itself against these forces or can influence them in its favor. The collective strength of the forces may be painfully apparent to all the antagonists; but to cope with them, the strategist must delve below the surface and analyse the sources of each. For example, what makes the industry vulnerable to entry, what determines the bargaining power of suppliers?

Knowledge of these underlying sources of competitive pressure provides the groundwork for a strategic agenda of action. They highlight the critical strengths and weaknesses of the company, animate the positioning of the company in its industry, clarify the areas where strategic changes may yield the greatest payoff, and highlight the places where industry trends promise to hold the greatest significance as either opportunities or threats. Understanding these sources also proves to be of help in considering areas for diversification.

Contending Forces

The strongest competitive force or forces determine the profitability of an industry and so are of greatest importance in strategy formulation. For example, even a company with a strong position in an industry unthreatened by potential entrants will earn low returns if it faces a superior or a lower-cost substitute product—as the leading manufacturers of vacuum tubes and coffee percolators have learned to their sorrow. In such a situation, coping with the substitute product becomes the number one strategic priority.

Different forces take on prominence, of course, in shaping competition in each industry. In the ocean-going tanker industry the key force is probably the buyers (the major oil companies), while in tires it is powerful OEM buyers coupled with tough competitors. In the steel industry the key forces are foreign competitors and substitute materials.

Every industry has an underlying structure, or a set of fundamental economic and technical characteristics, that gives rise to these competitive forces. The strategist, wanting to position his or her company to cope best with its industry environment or to influence that environment in the company's favor, must learn what makes the environment tick.

This view of competition pertains equally to industries dealing in services and to those selling products. To avoid monotony in this article, I refer to both products and services as "products." The same general principles apply to all types of business.

A few characteristics are critical to the strength of each competitive force. I shall discuss them in this section.

Threat of entry

New entrants to an industry bring new capacity, the desire to gain market share, and often substantial resources. Companies diversifying through acquisition into the industry from other markets often leverage their resources to cause a shake-up, as Philip Morris did with Miller beer.

The seriousness of the threat of entry depends on the barriers present and on the reaction from existing competitors that entrants can expect. If barriers to entry are high and newcomers can expect sharp

retaliation from the entrenched competitors, obviously the newcomers will not pose a serious threat of entering.

There are six major sources of barriers to entry:

1. Economies of scale

These economies deter entry by forcing the aspirant either to come in on a large scale or to accept a cost disadvantage. Scale economies in production, research, marketing, and service are probably the key barriers to entry in the mainframe computer industry, as Xerox and GE sadly discovered. Economies of scale can also act as hurdles in distribution, utilization of the sales force, financing, and nearly any other part of a business.

2. Product differentiation

Brand identification creates a barrier by forcing entrants to spend heavily to overcome customer loyalty. Advertising, customer service, being first in the industry, and product differences are among the factors fostering brand identification. It is perhaps the most important entry barrier in soft drinks, over-the-counter drugs, cosmetics, investment banking, and public accounting. To create high fences around their businesses, brewer's couple brand identification with economies of scale in production, distribution, and marketing.

3. Capital requirements

The need to invest large financial resources in order to compete creates a barrier to entry, particularly if the capital is required for unrecoverable expenditures in up-front advertising or R&D. Capital is necessary not only for fixed facilities but also for customer credit, inventories, and absorbing start-up losses. While major corporations have the financial resources to invade almost any industry, the huge capital requirements in certain fields, such as computer manufacturing and mineral extraction, limit the pool of likely entrants.

4. Cost disadvantages independent of size

Entrenched companies may have cost advantages not available to potential rivals, no matter what their size and attainable economies of scale. These advantages can stem from the effects of the learning curve (and of its first cousin, the experience curve), proprietary technology, access to the best raw materials sources, assets purchased at pre-inflation prices, government subsidies, or favourable locations. Sometimes cost advantages are legally enforceable, as they are through patents. (For an analysis of the much-discussed experience curve as a barrier to entry, see the insert.)

5. Access to distribution channels

The newcomer on the block must, of course, secure distribution of its product or service. A new food product, for example, must displace others from the supermarket shelf via price breaks, promotions, intense selling efforts, or some other means. The more limited the wholesale or retail channels are and the more that existing competitors have these tied up, obviously the tougher that entry into the industry will be. Sometimes this barrier is so high that, to surmount it, a new contestant must create its own distribution channels, as Timex did in the watch industry in the 1950s.

6. Government policy

The government can limit or even foreclose entry to industries with such controls as license requirements and limits on access to raw materials. Regulated industries like trucking, liquor retailing, and freight forwarding are noticeable examples; more subtle government restrictions operate in fields

like ski-area development and coal mining. The government also can play a major indirect role by affecting entry barriers through controls such as air and water pollution standards and safety regulations.

The potential rival's expectations about the reaction of existing competitors also will influence its decision on whether to enter. The company is likely to have second thoughts if incumbents have previously lashed out at new entrants or if:

- The incumbents possess substantial resources to fight back, including excess cash and unused borrowing power, productive capacity, or clout with distribution channels and customers.
- The incumbents seem likely to cut prices because of a desire to keep market shares or because of industrywide excess capacity.
- Industry growth is slow, affecting its ability to absorb the new arrival and probably causing the financial performance of all the parties involved to decline.

Changing conditions

From a strategic standpoint there are two important additional points to note about the threat of entry.

First, it changes, of course, as these conditions change. The expiration of Polaroid's basic patents on instant photography, for instance, greatly reduced its absolute cost entry barrier built by proprietary technology. It is not surprising that Kodak plunged into the market. Product differentiation in printing has all but disappeared. Conversely, in the auto industry economies of scale increased enormously with post-World War II automation and vertical integration—virtually stopping successful new entry.

Second, strategic decisions involving a large segment of an industry can have a major impact on the conditions determining the threat of entry. For example, the actions of many U.S. wine producers in the 1960s to step up product introductions, raise advertising levels, and expand distribution nationally surely strengthened the entry roadblocks by raising economies of scale and making access to distribution channels more difficult. Similarly, decisions by members of the recreational vehicle industry to vertically integrate in order to lower costs have greatly increased the economies of scale and raised the capital cost barriers.

Powerful suppliers & buyers

Suppliers can exert bargaining power on participants in an industry by raising prices or reducing the quality of purchased goods and services. Powerful suppliers can thereby squeeze profitability out of an industry unable to recover cost increases in its own prices. By raising their prices, soft drink concentrate producers have contributed to the erosion of profitability of bottling companies because the bottlers, facing intense competition from powdered mixes, fruit drinks, and other beverages, have limited freedom to raise *their* prices accordingly. Customers likewise can force down prices, demand higher quality or more service, and play competitors off against each other—all at the expense of industry profits.

The power of each important supplier or buyer group depends on a number of characteristics of its market situation and on the relative importance of its sales or purchases to the industry compared with its overall business.

A *supplier* group is powerful if:

- It is dominated by a few companies and is more concentrated than the industry it sells to.
- Its product is unique or at least differentiated, or if it has built up switching costs. Switching costs are fixed costs buyers face in changing suppliers. These arise because, among other things, a buyer's product specifications tie it to particular suppliers, it has invested heavily in specialized ancillary equipment or in reaming how to operate a supplier's equipment (as in computer software), or its production lines are connected to the supplier's manufacturing facilities (as in some manufacture of beverage containers).

- It is not obliged to contend with other products for sale to the industry. For instance, the competition between the steel companies and the aluminum companies to sell to the can industry checks the power of each supplier.
- It poses a credible threat of integrating forward into the industry's business. This provides a check against the industry's ability to improve the terms on which it purchases.
- The industry is not an important customer of the supplier group. If the industry is an important customer, suppliers' fortunes will be closely tied to the industry, and they will want to protect the industry through reasonable pricing and assistance in activities like R&D and lobbying.

A buyer group is powerful if:

- It is concentrated or purchases in large volumes. Large volume buyers are particularly potent forces if heavy fixed costs characterize the industry—as they do in metal containers, corn refining, and bulk chemicals, for example—which raise the stakes to keep capacity filled.
- The products it purchases from the industry are standard or undifferentiated. The buyers, sure that they can always find alternative suppliers, may play one company against another, as they do in aluminum extrusion.
- The products it purchases from the industry form a component of its product and represent a significant fraction of its cost. The buyers are likely to shop for a favourable price and purchase selectively. Where the product sold by the industry in question is a small fraction of buyers' costs, buyers are usually much less price sensitive.
- It earns low profits, which create great incentive to lower its purchasing costs. Highly profitable buyers, however, are generally less price sensitive (that is, of course, if the item does not represent a large fraction of their costs).
- The industry's product is unimportant to the quality of the buyers' products or services. Where the quality of the buyers' products is very much affected by the industry's product, buyers are generally less price sensitive. Industries in which this situation obtains include oil field equipment, where a malfunction can lead to large losses, and enclosures for electronic medical and test instruments, where the quality of the enclosure can influence the user's impression about the quality of the equipment inside.
- The industry's product does not save the buyer money. Where the industry's product or service can pay for itself many times over, the buyer is rarely price sensitive; rather, he is interested in quality. This is true in services like investment banking and public accounting, where errors in judgment can be costly and embarrassing, and in businesses like the logging of oil wells, where an accurate survey can save thousands of dollars in drilling costs.
- The buyers pose a credible threat of integrating backward to make the industry's product. The Big Three auto producers and major buyers of cars have often used the threat of self-manufacture as a bargaining lever. But sometimes an industry engenders a threat to buyers that its members may integrate forward.

Most of these sources of buyer power can be attributed to consumers as a group as well as to industrial and commercial buyers; only a modification of the frame of reference is necessary. Consumers tend to be more price sensitive if they are purchasing products that are undifferentiated, expensive relative to their incomes, and of a sort where quality is not particularly important.

The buying power of retailers is determined by the same rules, with one important addition. Retailers can gain significant bargaining power over manufacturers when they can influence consumers' purchasing decisions, as they do in audio components, jewelry, appliances, sporting goods, and other goods.

Strategic action

A company's choice of suppliers to buy from or buyer groups to sell to should be viewed as a crucial strategic decision. A company can improve its strategic posture by finding suppliers or buyers who possess the least power to influence it adversely.

Most common is the situation of a company being able to choose whom it will sell to—in other words, buyer selection. Rarely do all the buyer groups a company sells to enjoy equal power. Even if a company sells to a single industry, segments usually exist within that industry that exercise less power (and that are therefore less price sensitive) than others. For example, the replacement market for most products is less price sensitive than the overall market.

As a rule, a company can sell to powerful buyers and still come away with above-average profitability only if it is a low-cost producer in its industry or if its product enjoys some unusual, if not unique, features. In supplying large customers with electric motors, Emerson Electric earns high returns because its low cost position permits the company to meet or undercut competitors' prices.

If the company lacks a low cost position or a unique product, selling to everyone is self-defeating because the more sales it achieves, the more vulnerable it becomes. The company may have to muster the courage to turn away business and sell only to less potent customers.

Buyer selection has been a key to the success of National Can and Crown Cork & Seal. They focus on the segments of the can industry where they can create product differentiation, minimize the threat of backward integration, and otherwise mitigate the awesome power of their customers. Of course, some industries do not enjoy the luxury of selecting "good" buyers.

As the factors creating supplier and buyer power change with time or as a result of a company's strategic decisions, naturally the power of these groups rises or declines. In the ready-to-wear clothing industry, as the buyers (department stores and clothing stores) have become more concentrated and control has passed to large chains, the industry has come under increasing pressure and suffered falling margins. The industry has been unable to differentiate its product or engender switching costs that lock in its buyers enough to neutralize these trends.

Substitute products

By placing a ceiling on prices it can charge, substitute products or services limit the potential of an industry. Unless it can upgrade the quality of the product or differentiate it somehow (as via marketing), the industry will suffer in earnings and possibly in growth.

Manifestly, the more attractive the price-performance trade-off offered by substitute products, the firmer the lid placed on the industry's profit potential. Sugar producers confronted with the large-scale commercialization of high-fructose corn syrup, a sugar substitute, are learning this lesson today.

Substitutes not only limit profits in normal times; they also reduce the bonanza an industry can reap in boom times. In 1978 the producers of fiberglass insulation enjoyed unprecedented demand as a result of high energy costs and severe winter weather. But the industry's ability to raise prices was tempered by the plethora of insulation substitutes, including cellulose, rock wool, and styrofoam. These substitutes are bound to become an even stronger force once the current round of plant additions by fiberglass insulation producers has boosted capacity enough to meet demand (and then some).

Substitute products that deserve the most attention strategically are those that (a) are subject to trends improving their price-performance trade-off with the industry's product, or (b) are produced by industries earning high profits. Substitutes often come rapidly into play if some development increases competition in their industries and causes price reduction or performance improvement.

Jockeying for position

Rivalry among existing competitors takes the familiar form of jockeying for position—using tactics like price competition, product introduction, and advertising slugfests. Intense rivalry is related to the presence of a number of factors:

- Competitors are numerous or are roughly equal in size and power. In many U.S. industries in recent years foreign contenders, of course, have become part of the competitive picture.

- Industry growth is slow, precipitating fights for market share that involve expansion-minded members.
- The product or service lacks differentiation or switching costs, which lock in buyers and protect one combatant from raids on its customers by another.
- Fixed costs are high or the product is perishable, creating strong temptation to cut prices. Many basic materials businesses, like paper and aluminum, suffer from this problem when demand slackens.
- Capacity is normally augmented in large increments. Such additions, as in the chlorine and vinyl chloride businesses, disrupt the industry's supply-demand balance and often lead to periods of overcapacity and price cutting.
- Exit barriers are high. Exit barriers, like very specialized assets or management's loyalty to a particular business, keep companies competing even though they may be earning low or even negative returns on investment. Excess capacity remains functioning, and the profitability of the healthy competitors suffers as the sick ones hang on.¹ If the entire industry suffers from overcapacity, it may seek government help—particularly if foreign competition is present.
- The rivals are diverse in strategies, origins, and "personalities." They have different ideas about how to compete and continually run head-on into each other in the process.

As an industry matures, its growth rate changes, resulting in declining profits and (often) a shakeout. In the booming recreational vehicle industry of the early 1970s, nearly every producer did well; but slow growth since then has eliminated the high returns, except for the strongest members, not to mention many of the weaker companies. The same profit story has been played out in industry after industry—snowmobiles, aerosol packaging, and sports equipment are just a few examples.

An acquisition can introduce a very different personality to an industry, as has been the case with Black & Decker's takeover of McCullough, the producer of chain saws. Technological innovation can boost the level of fixed costs in the production process, as it did in the shift from batch to continuous-line photo finishing in the 1960s.

While a company must live with many of these factors—because they are built into industry economics—it may have some latitude for improving matters through strategic shifts. For example, it may try to raise buyers' switching costs or increase product differentiation. A focus on selling efforts in the fastest-growing segments of the industry or on market areas with the lowest fixed costs can reduce the impact of industry rivalry. If it is feasible, a company can try to avoid confrontation with competitors having high exit barriers and can thus sidestep involvement in bitter price cutting.

Formulation of Strategy

Once having assessed the forces affecting competition in an industry and their underlying causes, the corporate strategist can identify the company's strengths and weaknesses. The crucial strengths and weaknesses from a strategic standpoint are the company's posture vis-à-vis the underlying causes of each force. Where does it stand against substitutes? Against the sources of entry barriers?

Then the strategist can devise a plan of action that may include (1) positioning the company so that its capabilities provide the best defense against the competitive force; and/or (2) influencing the balance of the forces through strategic moves, thereby improving the company's position; and/or (3) anticipating shifts in the factors underlying the forces and responding to them, with the hope of exploiting change by choosing a strategy appropriate for the new competitive balance before opponents recognize it. I shall consider each strategic approach in turn.

Positioning the company

The first approach takes the structure of the industry as given and matches the company's strengths and weaknesses to it. Strategy can be viewed as building defenses against the competitive forces or as finding positions in the industry where the forces are weakest.

Knowledge of the company's capabilities and of the causes of the competitive forces will highlight the areas where the company should confront competition and where avoid it. If the company is a low-cost producer, it may choose to confront powerful buyers while it takes care to sell them only products not vulnerable to competition from substitutes.

The success of Dr Pepper in the soft drink industry illustrates the coupling of realistic knowledge of corporate strengths with sound industry analysis to yield a superior strategy. Coca-Cola and Pepsi-Cola dominate Dr Pepper's industry, where many small concentrate producers compete for a piece of the action. Dr Pepper chose a strategy of avoiding the largest-selling drink segment, maintaining a narrow flavor line, forgoing the development of a captive bottler network, and marketing heavily. The company positioned itself so as to be least vulnerable to its competitive forces while it exploited its small size.

In the \$11.5 billion soft drink industry, barriers to entry in the form of brand identification, large-scale marketing, and access to a bottler network are enormous. Rather than accept the formidable costs and scale economies in having its own bottler network—that is, following the lead of the Big Two and of Seven-Up—Dr Pepper took advantage of the different flavor of its drink to “piggyback” on Coke and Pepsi bottlers who wanted a full line to sell to customers. Dr Pepper coped with the power of these buyers through extraordinary service and other efforts to distinguish its treatment of them from that of Coke and Pepsi.

Many small companies in the soft drink business offer cola drinks that thrust them into head-to-head competition against the majors. Dr Pepper, however, maximized product differentiation by maintaining a narrow line of beverages built around an unusual flavor.

Finally, Dr Pepper met Coke and Pepsi with an advertising onslaught emphasizing the alleged uniqueness of its single flavor. This campaign built strong brand identification and great customer loyalty. Helping its efforts was the fact that Dr Pepper's formula involved lower raw materials cost, which gave the company an absolute cost advantage over its major competitors.

There are no economies of scale in soft drink concentrate production, so Dr Pepper could prosper despite its small share of the business (6%). Thus Dr Pepper confronted competition in marketing but avoided it in product line and in distribution. This artful positioning combined with good implementation has led to an enviable record in earnings and in the stock market.

Influencing the balance

When dealing with the forces that drive industry competition, a company can devise a strategy that takes the offensive. This posture is designed to do more than merely cope with the forces themselves; it is meant to alter their causes.

Innovations in marketing can raise brand identification or otherwise differentiate the product. Capital investments in large-scale facilities or vertical integration affect entry barriers. The balance of forces is partly a result of external factors and partly in the company's control.

Exploiting industry change

Industry evolution is important strategically because evolution, of course, brings with it changes in the sources of competition I have identified. In the familiar product life-cycle pattern, for example, growth rates change, product differentiation is said to decline as the business becomes more mature, and the companies tend to integrate vertically.

These trends are not so important in themselves; what is critical is whether they affect the sources of competition. Consider vertical integration. In the maturing minicomputer industry, extensive vertical integration, both in manufacturing and in software development, is taking place. This very significant trend is greatly raising economies of scale as well as the amount of capital necessary to compete in the industry. This in turn is raising barriers to entry and may drive some smaller competitors out of the industry once growth levels off.

Obviously, the trends carrying the highest priority from a strategic standpoint are those that affect the most important sources of competition in the industry and those that elevate new causes to the forefront. In contract aerosol packaging, for example, the trend toward less product differentiation is now dominant. It has increased buyers' power, lowered the barriers to entry, and intensified competition.

The framework for analyzing competition that I have described can also be used to predict the eventual profitability of an industry. In long-range planning the task is to examine each competitive force, forecast the magnitude of each underlying cause, and then construct a composite picture of the likely profit potential of the industry.

The outcome of such an exercise may differ a great deal from the existing industry structure. Today, for example, the solar heating business is populated by dozens and perhaps hundreds of companies, none with a major market position. Entry is easy, and competitors are battling to establish solar heating as a superior substitute for conventional methods.

The potential of this industry will depend largely on the shape of future barriers to entry, the improvement of the industry's position relative to substitutes, the ultimate intensity of competition, and the power captured by buyers and suppliers. These characteristics will in turn be influenced by such factors as the establishment of brand identities, significant economies of scale or experience curves in equipment manufacture wrought by technological change, the ultimate capital costs to compete, and the extent of overhead in production facilities.

The framework for analyzing industry competition has direct benefits in setting diversification strategy. It provides a road map for answering the extremely difficult question inherent in diversification decisions: "What is the potential of this business?" Combining the framework with judgment in its application, a company may be able to spot an industry with a good future before this good future is reflected in the prices of acquisition candidates.

Multifaceted Rivalry

Corporate managers have directed a great deal of attention to defining their businesses as a crucial step in strategy formulation. Theodore Levitt, in his classic 1960 article in HBR, argued strongly for avoiding the myopia of narrow, product-oriented industry definition.² Numerous other authorities have also stressed the need to look beyond product to function in defining a business, beyond national boundaries to potential international competition, and beyond the ranks of one's competitors today to those that may become competitors tomorrow. As a result of these urgings, the proper definition of a company's industry or industries has become an endlessly debated subject.

One motive behind this debate is the desire to exploit new markets. Another, perhaps more important motive is the fear of overlooking latent sources of competition that someday may threaten the industry. Many managers concentrate so single-mindedly on their direct antagonists in the fight for market share that they fail to realize that they are also competing with their customers and their suppliers for bargaining power. Meanwhile, they also neglect to keep a wary eye out for new entrants to the contest or fail to recognize the subtle threat of substitute products.

The key to growth—even survival—is to stake out a position that is less vulnerable to attack from head-to-head opponents, whether established or new, and less vulnerable to erosion from the direction of buyers, suppliers, and substitute goods. Establishing such a position can take many forms—solidifying relationships with favourable customers, differentiating the product either substantively or psychologically through marketing, integrating forward or backward, establishing technological leadership.