Leadership

Industry Competition

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Abstract
Not only do individuals and firms compete with each other within an industry, there is also industry competition with other industries and competition of an industry with its customers and vendors. The rules of industry competition are embedded in market structure and difficult to modify. These rules are discussed under the headings of overall market growth, barriers to entry, rivalries within the industry, relationships with customers and vendors, and the availability of substitutes.

Dentists compete with each other and with those in their community because there are not enough resources for everyone to have their first choice of what they want and because the benefits dentists receive depend on their behavior and the behavior of patients, other dentists, health care brokers, travel agents, landlords, beauticians, and anyone else who knows the value of a dollar. The playing field is kept generally level and the competition generally civil by laws, professional codes, and a sense of mutuality which affects the public good.

Industries also compete with each other. The last several years has seen a dramatic shift in the balance between savings and loan associations and the stock market as a place to invest money. This is industry competition based on substitutable products. There is also industry competition between vendors and purchasers. Point-of-sale information about consumer purchasing habits have spawned the creation of giant retail organizations and given them considerable say over price, product design, product mix, and delivery. Only twenty years ago, brand name suppliers were calling the tune. There is even industry competition over form of ownership. Public policy and improved cost accounting drove the U.S. government out of the letter and parcel delivery business.

In addition to understanding competition at the level of the firm or individual dental office, it is also valuable to know the trends in industry competition. An appropriate analogy would be the need to understand the ebb and flow of tides in addition to your own strength and the nature of your equipment before doing any serious rowing. It is also possible for industries, such as dentistry, to influence their competitive position through collective action. On the whole, organized dentistry has done quite well in this regard.

Some industries are in positions where they interact with customers, suppliers, and other industries on favorable terms; and some have to compete for that advantage. Some lose their competitive opportunities if they fail to respond to a changing environment. The following analysis describes environmental factors that favor or disadvantage industries generally. They can be grouped under five headings: (a) overall growth of the market, (b) barriers preventing competitive entries into the market, (c) rivalries within the industry, (d) relationships with customers and vendors, and (e) the availability of substitutes or alternative ways for customers to satisfy their demands.

Growth of the Market
Dentistry is a $41 billion industry and growing. Over the past five years, expenditures on oral health have climbed 37%, while the economy as a whole has only grown at half of that rate. Fluctuations in the oral health care bill for the nation have been quite similar to those in medicine generally, which now accounts for about 12% of the gross domestic product. About five cents of every health care dollar are spent on dentistry.

Dentistry has also proven to be a very responsive market. During times when edentulism and the DMF in children were cut in half, the dental market continued to grow as alternative services were offered. Although the number of Americans who visit the dentist in a given year has remained between 60% and 70% for almost twenty years, the amount of care given to the population who seek the services of a dentist have continued to increase. Those who have received the most care tend to be those who demand more.

Although health economists and epidemiologists continue to monitor the oral health market overall, there are currently few voices saying that market growth has flattened or shows decline. Until biology can be altered or vanity becomes unfashionable, dentistry is in an
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Table 1. Barriers to entry protecting the dental profession

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<thead>
<tr>
<th>High barriers</th>
<th>Low barriers</th>
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<tr>
<td>Long learning curves</td>
<td>Switching costs</td>
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<tr>
<td>Licensure</td>
<td>Economies of scale</td>
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<td>Industry standards and regulations</td>
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<td>Reputation</td>
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<td>Subsidies</td>
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excellent overall competitive position with regard to market growth.

Barriers to Entry

The positive market growth picture in dentistry has one significant downside. It invites competition. As Harvard Business School professor Michael Porter notes, “Competition in an industry works to drive down the rate of return on invested capital toward the competitive floor rate of return, or return that would be earned by the economist’s ‘perfectly competitive’ industry....The presence of rates of return higher than the adjusted free market return serves to stimulate the inflow of capital into an industry either through new entry or through additional investment by existing competitors.” Managed care is not a market aberration caused by a few greedy insurance executives. It is a natural market response to the sustained economic success of dentists. Dentistry can only maintain its competitive strategic advantage by shoring up barriers to entry into the market. Table 1 enumerates the traditional barriers to entry into an industry and identifies those which are favorable to dentistry and those that are unfavorable.

Among the competitive barriers that dentistry enjoys are long learning curves, restrictive licensure, industry standards and regulations, an excellent reputation, and heavy subsidies. The learning curve is the time it takes a firm that chooses to enter an industry to reach full productive stride. If the capital were available, anyone could start a business canning salsa, assembling computers, leasing trucks, or offering therapeutic massages within a matter of months. The time it takes to prepare for dental school, to receive dental and specialty training, and to become productive in one’s practice are a matter of years and are comparable to many industries with long learning curves. For example, it takes an automobile manufacturer between five and seven years to introduce a new automobile. This is part of the reason there are so few automobile manufacturers. Long learning curves are a barrier to entry into a market. The only way around this barrier, and one that is being attempted with only partial success by capitated clinics, is to purchase the expertise.

Another barrier which favors dentistry is the license. Unlike most markets involving licenses or patents, the dentist as a provider is licensed rather than the products, services, or procedures which are sold. This creates a special form of protection since the dominant form of dental practice is solo, thus the owner and license holder are synonymous. This barrier, however, is being lowered. Increasing numbers of dentists, particularly new entrants into the profession, are working for other dentists. The number now stands at approximately 30% and is rising. Dental management companies are a new phenomenon. There are currently fourteen dental chains traded on the stock market. They have realized that hiring dentists is a means of acquiring licenses.

Industry standards and regulations, including government regulations, can provide an effective deterrent to those seeking to enter an industry. Dentistry is strong in this regard. Standards of care, record-keeping practices, infection control, industry accepted employment practices, accounting standards and requirements for reporting income, practice act regulations about legal names, and staff supervision might all at certain times appear to be hassles that impede the professional independence of dentists. They also form a network creating a most effective barrier. These standards and regulations may actually be more of a deterrent to the independent practice of dentists and hygienists than are licensure matters. The history of independent hygiene practice in Colorado is illustrative. Although it has been legal for years for hygienists to practice independently there, very few have found it feasible to do so.

Managed care is a natural market response to the sustained economics success of dentists.

Dentistry’s reputation is precious and superlative. For years, public opinion polls have shown that patients trust dentists. Would-be competitors have been unsuccessful in claiming that dentists are taking advantage of the public and need to be curbed or need to face more open competition. Both organized dentistry and individual practitioners can take credit for this important accomplishment.

The last effective barrier, subsidies, may come as a surprise to the dentist who holds an image of being the rugged individualist. About 5% of dentistry is purchased outright by the government and given to individuals in the armed ser...
Dentists with interests in other areas or dentists who are doing poorly in the profession find it difficult to switch careers.

Health care dollars from unions, employers, and the government. Such benefits are normally tax exempt. Although these subsidies are nothing of the order of those in medicine or in the defense industry, they compare favorably with agriculture and research. Large subsidies protect the incumbents in an industry.

There are two places where the barriers to entry into the dental industry are noticeably low. The first of these is switching costs. This is a technical term which describes the burden on the customer for moving from one provider of services to another. The switching costs to move from one computer company to another are enormous when one considers the equipment, the programs, staff training, support, etc. Switching costs in dentistry are almost non-existent and may be largely an intangible matter such as loyalty. The other low barrier is economies of scale. There are some services that are best delivered in bulk. Generating hydra-electric power, public transportation, and probably even hospitals fall into this category. When such economies of scale exist, they constitute an effective barrier to entry into the industry. That is certainly not the case in dentistry.

Some of the classical barriers to entry are neither advantages nor disadvantages for dentistry. These include protected technology (there is little of it) and product differentiation (only recently has this become an issue). Another potential barrier is very problematic. This is capitalization, or the cost of entering the industry. Certainly by comparison with many segments of the economy, the costs of establishing a dental office are small and readily available. This is a point that has not been lost on the dental management companies. In terms of self financing, and by comparison with becoming a beautician or real estate agent, the costs can be very large. Twenty, thirty, or more years ago, these costs of establishing a dental office were born by the families and the hard work of individual practitioners. In more recent history, they have had a partner, the U.S. government and banks, holding the note. With the increasing costs of dental education and the precarious status of loans, a new economic reality is entering the capitalization field. The economic future of increasing numbers of beginning practitioners is in the hands of senior dentists in the form of an associateship arrangement or in the hands of clinic and management company owners, many of whom are dentists as well. Capitalization may not be an issue of how high the barrier to entry into the profession is, but where the holes are. It may become a matter of who is allowed to enter the profession (African-Americans and Hispanic-Americans being conspicuously under represented) and how they practice.

Rivalry

Industries are better able to hold a competitive advantage in their environment if they are not troubled by internal competition. Dentistry, like many other professions, takes a public posture discouraging competition. Advertising is frowned upon, as is commentary on colleagues' work and claims of superior quality. Organized dentistry has been proactive in adjusting the dentist-to-population ratio.

Despite this anti-competitive stance, there are structural characteristics within dentistry that either promote or discourage rivalry. On the positive side are industry growth and the large number of "firms." These tend to dampen competition. Another factor that depresses competition within dentistry is product differentiation. Marketers contrast differentiated goods and services, where each is unique and serves a customized purpose, from commodities. Commodities are indistinguishable from each other and include flour, gasoline, notary services, and probably even haircuts. An industry filled with differentiated products is stable and is relatively free of internal competition. By contrast, industries that offer commodities compete on price. Look what MacDonald's did when they standardized the hamburger.

Dentistry has been ambivalent over differentiation. Obsession with technical quality, initial licensure examinations that focus almost entirely on technical quality, and defensiveness over the recent Readers Digest article suggest that many in the profession would favor a commodity approach to defining quality. That is certainly what the brokered care portion of the industry would prefer. But there is a difference between a crown delivered by a dentist who stresses a sensitive environment, thorough diagnosis, quality

Table 2. Rivalry factors in competition with dentistry

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<th>Factors dampening competition</th>
<th>Factors promoting competition</th>
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<tr>
<td>Industry growth</td>
<td>Exit barriers</td>
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<td>Product differentiation</td>
<td>Fixed cost—overhead</td>
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control, and comprehensive care, and one delivered in a capitation mill, even if the two crowns happen to be physically identical.

There are two structural characteristics of dental practice which promote internal rivalry and weaken the overall competitive advantage of the profession. The first of these is high fixed costs. Office overhead has risen steadily over the past years and is now just under 70%. The only way to recover funds sunk in buildings, equipment, staff, and other fixed resources is to increase productivity. The existence of unused resources has been a major argument of brokered care plans. Simple arithmetic will reveal that larger overhead permits the absorption of a larger percentage of capitation patients into a practice. Perhaps this is part of the reason established practitioners have the same ratio of capitation patients as beginning practitioners do, despite the larger number of years they have had to build a fee-for-service patient base.

The second source of rivalry inherent in the structure of dental practice is high barriers of exit. Dentists with interests in other areas or dentists who are doing poorly in the profession find it difficult to switch careers. The time and money invested in becoming a dentist and establishing a practice, the small number of careers that make use of dental skills, and the very small number of options that provide the economic reward of dentistry combine to keep dentists in practice even when their hearts are elsewhere or their practices are ineffective. As harsh as it sounds, one of the tenants of capitalism is that the market will drive out weak firms. This natural pruning is retarded when there are high entry barriers and when there are high exit barriers. Many dentists who shift to real estate or become stock brokers after losing their interest in dentistry depend on the network of contacts they have developed more than the skills they have learned as dentists. It is partly out of sensitivity to the high exit barriers from dentistry that state board disciplinary actions focus so heavily on rehabilitation rather than on punishment.

Buyers and Sellers

All patients are not equally attractive buyers of dental services. Part of the practice location decision involves looking for situations where there is a large number of people with high demand for dental care and the ability and willingness to pay for the care. But beyond this, there are certain kinds of customers who are inherently more attractive in the sense that they are willing to pay higher prices for the services they receive.

Other things being equal, a practice will thrive if it has a larger proportion of patients with the following characteristics: (a) those who view dentistry as a differentiated product (those who think they can tell the difference in quality of care they receive), (b) those with high switching costs (those who prefer routine or would have to apologize to the other dentist in town over a personal dispute they have had before switching), (c) those who are not in the habit of doing anything for themselves along the lines of home care, etc., (d) those for whom poor oral health has a high psychological or financial cost, (e) those who go to the dentist irregularly, (f) those for whom oral health or an attractive appearance is part of their ability to earn a living, (g)

Table 3. Competitive factors favoring the seller over the buyer

- Differentiated product
- High switching costs
- Inability of buyer to make his or her own
- Small number of suppliers
- High cost associate with product failure
- Buyer purchases in small lots
- Product is important to buyer's business
- Uninformed buyer
- Buyer and seller have common future
- Buyer has optimistic growth potential
- Seller can reduce transaction costs
- Buyer favors quality over cost
- High value added product
- Buyer can pass cost on to others
- Each purchase is small segment of budget
- Buyer has low fixed costs
those who are uninformed, (h) those who share a common future with the dentist (as lodge brothers or members of the Chamber of Commerce in a small town), (i) those for whom transaction costs can be reduced (such as those who live near a dentist or value the services of the office completing insurance paperwork), (j) those who value quality more than cost, (k) those who can pass the costs of care onto others (as children or those who have insurance), (l) those in good health or those for whom dental expenditures are a small portion of their health care costs, (m) those with low fixed costs or, in other words, those with high discretionary income.

A parallel analysis can be done for dentists relative to their vendors. In this case, however, the comparative advantage is reversed. For example, dentists want patients with high switching costs but want low switching costs for themselves in terms of the liability insurance or dental equipment they purchase. Dentists can charge more to uninformed or disinterested patients but, as purchasers of services, they will do better to be well informed.

Although it seems natural to suggest that dentists selectively choose their vendors in a way that would give them a competitive advantage on many of the dimensions just listed, it is foreign to consider qualifying patients in the same fashion. None of these factors constitutes discrimination, and there is no specific professional injunction against qualifying patients on these dimensions. As a matter of fact, many dentists subconsciously organize their practices so as to encourage “better” patients through practice location selection, office hours, and financial arrangements.

**Availability of Substitutes**

In marketing lingo, substitutes are products or services that may be different in nature but serve to satisfy the same need. A new dentist in town is not a substitute; it is competition. An effective over-the-counter whitening agent, however, is a substitute. From the patient’s perspective, managed care is probably not a substitute, but alternative payment plans might be.

In the early days of dentistry, substitutes took the form of barbers, physicians, and home remedies. By the vigorous efforts of the pioneers in the field, dentistry became a scientifically-based healing profession with virtually no substitutes. As an industry, it enjoyed unparalleled success. Now, however, we are entering an era where substitutes do exist for some segments of the profession. The reason is a shift within the profession itself to include more discretionary care and a higher proportion of preventive and cosmetic services as opposed to therapeutic ones. There is no substitute for care of an abscessed pulp. But the market for general health and fitness and for physical attractiveness is teeming with alternatives. Dentistry is entering a phase where it is simultaneously in two markets: the preventive and cosmetic versus the therapeutic. The rules are not the same in both markets, and dentistry as an industry will be at a competitive disadvantage if it tries to use the market rules of therapy (where it has enjoyed such enviable power) in the preventive and cosmetic market.

It is difficult to make precise predictions about the emergence of substitutes. Those who are interested in this sort of prognostication should keep an eye on the National Institute for Dental Research, dental product development research, and the schools. The driver of oral health care substitutes has been technology research. Water fluoridation and the health care advertising of the dental trades have dramatically shrunk the therapeutic market in oral health. The next big changes quite possibly could be biological engineering and the development of easy-to-use technologies which would make it possible for patients to treat themselves or for a new class of oral health care providers to emerge who require significantly less training.

Comprehensive study of the “prisoner’s dilemma” — structured competition where the payoff to A or B depends on the joint strategies of both. In repeated “games,” a natural strategy of “cooperation” evolves through a process of tit-for-tat, punishing one’s opponent for deviations from the strategy which yields the best group payoff.


Competition in the future is the competition for opportunity. Firms’ profit ratio is the value added to customers divided by the cost of adding that value. Historically, we have focused on cost cutting and efficiency (the denominator). In the future we must look to growing the numerator. We will compete for the chance to give the customer what he or she wants.


A very popular book among those who have a philosophical antipathy to competition. A vast amount of literature is reviewed on claims that competition is inevitable, productive, enjoyable, and builds character. In every case, Kohn says competition is wanting. Kohn’s arguments are framed as win-lose alternatives between the proponents of competition and his own view, and he aggressively attacks his opponent, demonstrating in his own writings exactly what he would have us set aside. There is little offered by way of alternatives to competition.


A “how to” manual for advertising small businesses. With background in advertising in both large and small firms, Levinson shows how the techniques that work for the giants don’t work (and are not necessary) for firms that have local markets. The heart of the book is nineteen chapters, each describing the advantages and disadvantages of different media such as personal letters, brochures, direct mailing, seminars, trade shows, and even T-shirts and the yellow pages.


A true classic. Many MBA students are familiar with the seminal concepts of generic competitive strategies, industry life-cycles, buyer selection, and strategic groups without realizing that one man introduced them together in a single book. This is a combination of economics, marketing, and business strategy. It explains how firms work. The book is packed with a wealth of material and the examples tend to be brief, so a basic familiarity with business is helpful.

Editor’s Note

Summaries are available for the three recommended readings preceded by an asterisk (*). Each is about five pages long and conveys both the tone and content of the book through extensive quotations. These summaries are designed for busy readers who want the essence of these references in fifteen minutes rather than five hours. Summaries are available from the ACD Office in Gaithersburg. A donation to the ACD Foundation of $15 is suggested for the set of summaries on competition; a donation of $50 would bring you summaries of all the 1997 leadership topics.