The pros and cons of entering a market

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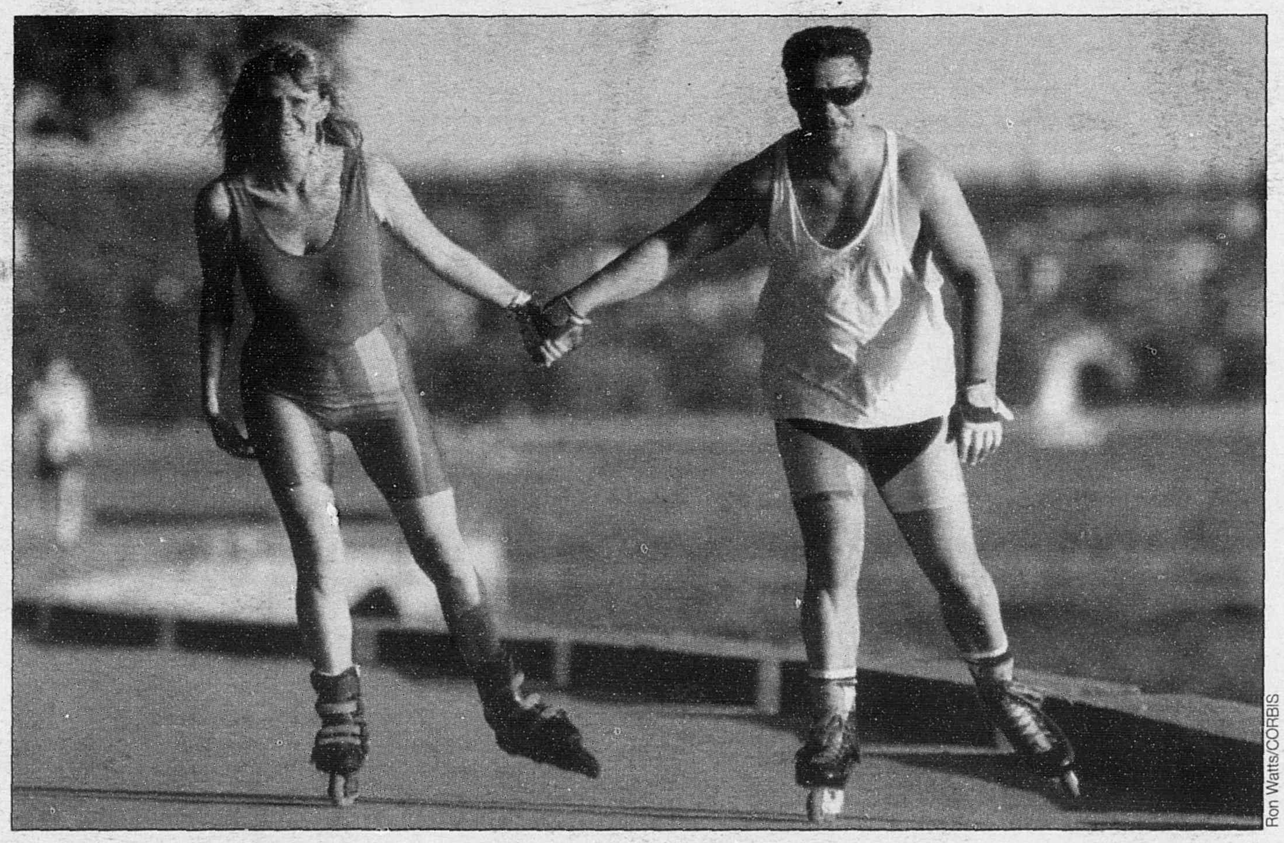
Summary

How should a company decide whether or not to enter a new market? How do entry patterns seen in the real business world mesh with the basic principles of economic theory? According to the textbook, says **Judith A. Chevalier**, the profits of pioneering companies are typically eroded by loss of market share and vigorous price competition as new players arrive on the scene. In reality, however, incumbent businesses can be protected by barriers to entry. The author sets out some of the main examples – patent and other legal devices, control over scarce resources, sunk expenditures – and concludes with some strategic considerations for companies trying to break them down.



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Skates provide a textbook example

Introductory economics textbooks generally tell us to expect new entrants into an industry whenever the incumbent companies are earning profits greater than their cost of capital. Furthermore, we are told entry will occur until profits net of the cost of capital are driven to zero. Obviously, this view of the world is too simplistic. We can think of many examples of markets with no regulatory barriers to entry in which incumbent companies are making high profits, yet little or no entry occurs.

For example, in a 1998 working paper, Boston University economist Marc Rysman estimates that the profits of US Yellow Page directory publishers average 35 per cent to 40 per cent of revenue. Despite this, relatively few independent publishers have entered the market to compete with local telephone companies in providing Yellow Pages services. In contrast, we can think of several examples of markets like online bookselling where, despite the virtual absence of profitability, many new companies seem to be starting up. In this article, I will explore some of the factors a company should consider when deciding whether or not to enter a new market. In doing so, I will try to reconcile the entry patterns we observe in real business with the basic principles of economics.

Basic economics of entry

Consider the textbook case of entry dynamics. A company enters a new market and finds it profitable. Typically, that market will then attract further entry, eroding the pioneer's profitability. Profits are eroded for two reasons. First, the pioneer loses market share to new entrants. Second, the presence of the entrants often brings vigorous price competition, eroding margins on each unit sold.

The case of Rollerblade skates, now owned by Italy's Benetton Sportsystem, conforms fairly well to the textbook example. Rollerblade introduced in-line skates in the US market in 1980. At the same time the company invested considerable resources in popularising the sport. It was successful; the market for in-line skates exploded in the late 1980s and early 1990s. Participation in the sport in the US rose from 3.1m in 1989 to more than 20m in 1995. However, the explosion of the market for in-line skating did not escape the notice of others. While Rollerblade did have patents for features of their skate boot, they did not have a patent for the basic idea of lining up skate wheels. This idea had been around for a long time. Indeed, in-line skates had been a fad in the 1860s. Thus, Rollerblade could not prevent entry into the market. In the late 1980s, Rollerblade had virtually all of the market and their cheapest model sold for $90. The company's only competitor at that time, First Team Sports, sold its skates for about 15 per cent less than the comparable Rollerblade models. By 1994, approximately 30 companies had entered the in-line skates market. Rollerblade's market share had dropped to about 40 per cent. The cheapest skates on the market sold for $29.99; Rollerblade's cheapest skates sold for $69.99.

As mentioned before, the erosion of profits through entry occurs at differing speeds in different markets. Economists use the *term barriers to entry* to describe situations in which incumbent companies are earning profits in a market and yet entrants do not find it worthwhile to enter that market.

Barriers to entry

Legal barriers to entry

Some markets have legal barriers to entry. For example, entry into a market can be blocked by government regulation and by patent protection. However, even when patents exist, they might not stop competition, depending on the breadth of the patent protection.

A 1987 survey by Richard Levin and others in the *Brookings Papers on Economic Activity* asked R&D executives to rank the effectiveness of patents at preventing duplication of their innovations. Using a seven point scale in which one represented "not at all effective" and seven represented "very effective", mean responses were 3.52 for process patents and 4.33 for product patents. The highest ranking for product patents, 6.5, was given by executives in the pharmaceutical industry.

While product patents are sometimes effective at preventing *duplication,* they don't prevent all forms of *imitation,* even in the pharmaceutical industry. For example, in the late 1960s and early 1970s, Eli Lilly, the US pharmaceuticals company, owned the US market for cephalosporins, a type of powerful antibiotic. Their patented products, Keflin and Keflex were both among the top-selling drugs in the US. While rivals could not produce the same chemical compounds as Keflin and Keflex until those patents expired, they could not be stopped from innovating powerful antibiotics using similar inputs that worked the same way in the body. By early 1982, the year in which the first of the two cephalosporin patents was to expire, Lilly's share of the cephalosporin market had dropped to 75 per cent.

High minimum efficient scale relative to market size

Even in the absence of legal barriers to entry, other entry barriers are possible. Entry can be prevented, for example, when the minimum efficient scale of production is large relative to the overall size of the market.

Consider, for example, Richardson Electronics, founded in 1947 as a distributor of vacuum tubes. A casual observer might regard it as extremely bad luck for Richardson that the company was founded only one year before the discovery of solid state physics – the basis for the transistor, an invention that made the vacuum tube virtually obsolete. In fact, however, the obsolescence of the vacuum tube turned out to be very good news for Richardson. While total sales of vacuum tubes declined dramatically during the 1970s, 1980s, and 1990s, Richardson's share of the market increased sharply as Western Electric, General Electric, RCA, Sylvania (a lighting company) and Westinghouse all exited the vacuum tube business. Since the 1970s Richardson has been the sole distributor available for many vacuum tube products, which means little price competition.

An example of Richardson's market position in the vacuum tube market is detailed in Richardson's 1998 annual report. An automotive company's rubber curing machines required replacement vacuum tubes. If the manufacturer could not find the

continued on page 10

Signpost

See related articles on Network Externalities in Part One (FT Sept 27) and Price Commitments (FT Oct 25)

continued from page 8

replacement parts, it would cost nearly $1m to replace the machinery. Obviously, the value that the manufacturer placed on obtaining the vacuum tubes was high and Richardson was the only supplier in a position to help. Since the customer's only alternative to doing business with Richardson is often scrapping an entire machine, Richardson is often in a strong bargaining position with customers, and can extract a substantial chunk of the cost of a new machine as the price of a replacement tube.

If the vacuum tube business is so profitable for Richardson, why have new entrants not come into the market? The answer is that it doesn't make sense for a competitor to enter on the scale that would be required to compete effectively with Richardson, whose inventories include thousands of types of vacuum tubes from all over the world in order to supply hard-to-find replacements quickly. The shrinking market for vacuum tubes is big enough to support one large player profitably; it probably isn't big enough to support two.

Large sunk expenditures

Some markets require large capital expenditures to enter. In and of itself, a large entry cost does not constitute a barrier to entry. Consider for example, a start-up airline contemplating offering shuttle service between Dublin and London. In order to begin offering this service, the airline has to make a large capital outlay for aircraft. However, the need to purchase the aircraft is not really a barrier to entry. Should the airline not find the route lucrative, it could probably sell the aircraft to another company for a price close to that originally paid.

The term "sunk" is used to describe investments that are unrecoverable once made. Entering the airline market requires a large expenditure of capital, but the expenditure is for capital goods that are relatively liquid. These expenditures are not "sunk" should the venture fail.

On the other hand, consider the Channel Tunnel. There, the expenditures required for entry are sunk (literally!). When revenues turned out to be lower and costs higher than initially forecast, the original investors must have wished they had not made the initial investments. However, the tunnel stays in business because the investment expenditures are unrecoverable.

If demand and cost conditions turn out to be favourable in a new market, it does not matter whether the entry expenditures are sunk or not. However, when conditions turn out unfavourably, the entrant cannot recover those entry investments which are sunk. Thus, in an industry in which entry requires making unrecoverable expenditures, entrants are less likely to enter, even when incumbent companies are earning some profits.

Ascertaining whether entry expenditures are sunk is trickier than might at first appear. In order to determine this, one has to consider what types of uncertainties face the new venture.

Consider a company that wants to capitalise on the "microbrew" craze by marketing beer brewed from corn rather than barley or wheat. To do this the company has to purchase basic brewing equipment. If the primary uncertainty facing such a brewer is whether consumers will find corn brew tasty, then we should consider the brewer's entry expenditure not to be sunk. After all, should corn brew fail to catch on, the brewing equipment could be resold to another brewer at close to the price initially paid for it. However, suppose the primary uncertainty facing the brewer is whether the "microbrew" craze will come to an end. If this happens the brewer may still want to close down, but there would then be little demand for used small-scale brewing equipment. The used brewing equipment would sell for a much lower price than what the brewer initially paid for it.

Network externalities

Entry can be unattractive despite incumbent profits in a market characterised by network externalities. A network externality occurs when consumers value consuming the same product as other consumers. For example, consumers want to have JVC's VHS videocassette recorder system rather than Sony Beta VCRs, because rental movies are only available for VHS VCRs. Thus they value owning the same type of VCR as other consumers.

The network externality may effectively create a monopoly for the incumbent if the incumbent company either has a cost advantage in producing its particular design or has legal rights to all compatible designs. Rysman's article suggests that a phenomenon similar to this explains the lack of new entrants in Yellow Pages markets. Consumers only keep and reference the Yellow Pages book for their local area that contains the largest number of advertisements. Thus, advertisers want to advertise in the same book in which everyone else advertises. It is hard for an entrant to break into this circle, because advertisers only want to advertise in the upstart book if they believe that others will too.

Incumbent first mover advantages

Entry may be difficult if the incumbent company in the market has important cost and demand advantages over potential entrants.

Incumbent first mover advantages generally derive from three sources: learning curve advantages, incumbent control of scarce assets, and customer switching costs.

Some production processes are simply difficult to master. Companies that enter an industry early have a head start when it comes to accumulating the knowledge necessary for production. For example, in a recent working paper, C. Lanier Benkard notes that a company's costs of producing commercial aircraft falls considerably with each new plane produced. New entrants might find this cost disadvantage relative to the incumbent to be a formidable barrier to entry.

Entry can also be difficult if the incumbent company controls scarce assets that are important to production. For example, the incumbent may have exclusive relations with important distribution channels, or may have long-term contracts with the only supplier of an important input. In this case, entrants are blocked from entry by the high costs they face in making or distributing their products. Because incumbent asset control can create entry barriers, the first mover in an industry often makes an effort to "lock up" supply or distribution channels. It is important to note, however, that these efforts have often precipitated the scrutiny of the antitrust authorities.

Finally, entry is impeded if customers would find it costly to switch to a new supplier. This exists to some extent in many markets where the incumbent's reputation and brand loyalty make consumers willing to pay more for the incumbent's product than for the entrant's product. However, the entry barrier is most severe when buyers have made some kind of investment in using the incumbent's product that would make it costly to switch to the entrant's substitute. For example, International Business Machines had difficulty achieving market penetration with its OS/2 operating system in part because users were unwilling to switch from the familiar Microsoft Windows environment.

The paradox of entry barriers

Obviously, the existence of entry barriers is good news for incumbent companies in a market. Indeed, when entering previously undeveloped markets, it makes sense to consider the magnitude of the entry barriers that subsequent entrants will face. For example, consider the strategy of Wal-Mart, the cut-price US retailer, when it initially marched across the US.

Wal-Mart built large discount stores in small towns that had never been served by large discount stores. Many of these towns were sufficiently small that they had "room" for one company to earn profits, but it would not be worthwhile for a second company to enter on the scale needed to offer the discounts and selection required to compete effectively with Wal-Mart. Thus, as the market pioneer, Wal-Mart certainly benefits from choosing markets in which there will be barriers to entry for subsequent entrants.

The existence of entry barriers might at first seem to be unambiguously bad news for a company considering entering an existing market. However, this is not entirely true. After all, if there were no barriers the market would be flooded with new entrants until profits equalled zero. The market could not truly represent much of an opportunity. Thus, paradoxically, entry barriers can be good for a potential newcomer because they keep other companies from entering.

However, a market with entry barriers only represents an opportunity if the potential entrant has skills or assets that enable it to overcome the entry barriers at a lower cost than what would be required of other potential entrants

"Fit" and entry

Novel product or business plan

When does a potential entrant have the ability to scale entry barriers? One example is when the incumbent has a truly innovative product or business plan. However, even here entry must be undertaken with caution. If the incumbent company can easily copy the product or business plan and would choose to do so, entry may not be worthwhile.

Consider Minnetonka, a small US manufacturer of consumer goods that used its innovation of attractively packaged liquid soap for the home – called SoftSoap – to enter the soap market in 1979. Minnetonka would have had a difficult time launching a mass market bar soap product. The main incumbent companies like Procter & Gamble, Unilever, and Colgate-Palmolive had relationships and contracts with distributors and retailers that gave them huge cost advantages over any potential entrant. By entering with an innovative product like SoftSoap, Minnetonka was able to overcome the formidable entry barriers and grabbed a 5 per cent share of the US personal soap market by the latter half of 1980.

Minnetonka could not, however, prevent Procter & Gamble and the other incumbents from marketing their own liquid soaps. Indeed, at the time of Minnetonka's entry Procter & Gamble was holding "sleeping" patents for its own liquid soap formulations. By 1983, the soap industry giants all had their own liquid soaps. Minnetonka's share of this market fell from more than 80 per cent in 1981 to less than 30 per cent in 1983. Its operating profit of $11m in 1980 turned into a loss of $7m in 1982.

Synergies with existing products

A potential entrant may also have the ability to scale entry barriers if there is some synergy between the production of the new good or service and the goods or services already produced by the potential entrant in the entrant's existing markets. The potential for shared marketing or umbrella branding may be sufficient to encourage an entrant. Consider, for example, the case of EBay and Amazon.com. EBay is the largest internet auction site; Amazon recently started brokering auctions itself.

In some ways, it might seem that an entrant would have a difficult time entering against EBay. After all, customers want to sell their wares in the most populated auction markets; they do not want to sell in a market with very few buyers competing for their goods. As the first mover in the market, EBay would seem to have the huge advantage of a network externality, because it has established itself as the most liquid auction market on the internet.

While EBay's first mover advantage is important, Amazon entered the auction market in 1999. How did Amazon plan to get started against EBay? First, Amazon used site advertising and emails to advertise its auctions to Amazon's existing large customer base. Amazon planned to leverage its strong brand name and reputation in an effort to obtain the market base required to compete effectively with EBay.

While the principle of looking for synergies is important, one must not to be overly optimistic. While the issue of auction market dominance has yet to be settled, Ebay for now continues to have considerably more trade than Amazon.

Conclusion

In summary, the simple decision rule for a potential entrant is this: enter the market if the post-entry profits are expected to be greater than the sunk costs of entering. As noted in the examples provided, however, current profits being earned by incumbents are not necessarily an ideal measure of the post-entry profit opportunities, as incumbents can be expected to respond to new entry, just as Procter & Gamble and others responded to Minnetonka's invasion of the soap market.

Further Reading

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