In general, entrants into an industry reduce the market share of firms in the industry and intensify competition through product introduction and price competition. This, in turn, reduces profits for all competing firms in the industry. Likewise, when a firm exits an industry, market share for remaining firms is increased, price and product competition is reduced, and profits increase.

A firm will enter a market if the net present value of expected post-entry profits exceeds the sunk costs of entry. A firm would exit a market if the expected future losses exceed the sunk costs of exit. Factors that reduce the likelihood of entry/exit are called entry/exit barriers.

The structural entry barriers result from exogenous market forces. These are the barriers that cannot be influenced by incumbents firms. Low-demand, high-capital requirements, and limited access to resources are all examples of structural entry barriers. Exit barriers arise when firms have obligations that they must keep whether they produce or not. Examples of such obligations include labor agreements and commitments to purchase raw materials, obligations to input suppliers and relationship-specific investments.

Strategies that incumbents employ to deter entry or hasten exit by competitors are: Limit pricing, predatory pricing, and capacity expansion change entrants’ forecasts of the profitability of post-entry competition and thus reduce the threat of entry and/or promote exit.

Limit pricing refers to the practice whereby an incumbent firm can discourage entry by its ability to sustain a low price upon facing entry, while setting a higher price when entry is not imminent. Predatory pricing is the practice of setting a price with the objective of driving new entrants or incumbent firms out of the industry. Limit pricing and predatory pricing strategies can succeed only if the entrant is uncertain about the nature of post-entry competition.

Firms may also choose to hold excess capacity which serves as a credible commitment that the incumbent will expand output should entry occur.

Exit-promoting strategies: Standard Oil in 1870 dominated the refining industry through predatory pricing. Standard Oil, Toyota, and Wal-Mart have all been accused of slashing prices below cost to eliminate competition. Price wars are examples of wars of attrition, where larger firms engage in price wars, harmful to the industry profits to drive out competition. Such tactics are used by firms, which believe that they can outlast their rivals.

Diversification can help or hurt entry when products are related through economies of scope. Diversified firms may enjoy economies of scope in production, distribution and marketing. Entry costs of diversified firms tend to be lower than startup firms since they are larger and have access to lower cost capital. A diversified firm can better coordinate pricing across related products, but may be vulnerable if price war in one market cuts into its profits in a substitute product market.
Product managers rely much more on entry-deterring strategies (aggressive price reduction, intense advertising to create brand loyalty, and acquiring patents) than strategies that affect the entrant’s perception (enhancing firms reputation through announcements, limit pricing, and holding excess capacity). Managers also are more likely to pursue entry-deterring strategies for new products than for existing products.

Definitions:

Accommodated Entry: Exists if structural entry barriers are low and either (a) entry-deterring strategies would be ineffective; or (b) the cost to incumbents of trying to deter entry exceeds the potential benefits from keeping entrants out.

Blockaded Entry: Exists if incumbents need not undertake any entry-deterring strategies to deter entry. Blockaded entry may result when there are structural entry barriers, or if entrants expect unfavorable postentry competition, perhaps because the entrants’ production is undifferentiated from that of the incumbents.

Deterred Entry: Exits when incumbents can keep entrants out by entry-deterring strategies.

Entry: Occurs as new firms begin production and sales in a market. Entry can occur under two different situations: (a) by new firms, that were previously not in the industry, or (b) diversifying firms, which are firms that were in business, but were not previously doing business in that market.

Exit: Occurs when a firm ceases to produce in a market. Exit from an industry occurs when a firm ceases to operate completely or continues to operate in other markets but withdraws its product offerings from the industry under consideration. To exit an industry, a firm stops production and either redeployes or sells off its assets.

Incumbent: Firm that is already in operation in a market.

Limit Pricing: Refers to the practice whereby an incumbent firm can discourage entry by charging a low price before entry occurs. The entrant, observing the low price set by the incumbent, infers that post entry price would be as low or even lower, and that entry into the market would therefore be unprofitable.

Perfectly Contestable: Describes the condition when a monopolist cannot raise prices above competitive levels. In theory, the threat of entry can constrain a monopolist from raising prices.

Postentry Competition: The conduct and performance of firms after entry has occurred.

Predatory Acts: Are entry deterring strategies by an incumbent that appear to reduce its profits, until one account for the additional profits that it earns because the acts deter entry or promote exit by competitors.

Predatory Pricing: Refers to the practice of setting price with the objective of driving new entrants or existing firms out of business.

Strategic Entry Barriers: Exists when incumbent firms take explicit actions aimed at deterring entry. Entry-deterring strategies include capacity expansion, limit pricing, and predatory pricing.
Structural Entry Barriers: Result when incumbents have natural cost or marketing advantages, or benefits from favorable regulations. Low demand, high-capital requirements, and limited access to resources are all examples of structural entry barriers.

Particular attention must be paid to the following concepts:

- **Entry** reduces share, increases competition, and reduces profits. Exit has the inverse effects. Barriers to entry are a major factor in evaluating entry conditions into a market.

- **Post entry competition** is how entrants assess their willingness to enter a market. Thus Incumbent firms may use entrance-deterring strategies to avert entrance by new firms.

- Students must understand the assumptions under which limit pricing will and will not work. Assuming that a firm considering entering a market has perfect market information, limit pricing would never work for an incumbent firm. It is only when the entrant is unsure about the level of post entry prices that limit pricing may work.

- In order for a firm to make a successful entrance into a market it must be able to recognize a wide host barriers to entry and anticipate the many scenarios post entry behavior by the entrants competitors.

Readings


Questions and Answers

1. Dunne, Roberts, and Samuelson found that industries with high entry rates tended to also have high exit rates. Can you explain this finding? What does this imply for pricing strategies of incumbent firms?

Production exhibiting low economies of scale (a condition that weakens entry barriers) and requiring little or no investment in specialized assets (a condition that weakens exit as well as entry barriers) is frequently observed in industries exhibiting high entry and high exit.

Consider the following scenario: Firms in an industry with no entry barrier face increased demand. If these firms begin to earn positive profits, entry occurs, especially if there are little or no exit barriers. As demand turns down, firms exit the industry. If barriers to entry or exit existed, this industry might not exhibit this pattern.

Given an industry with no entry or exit barriers is susceptible to “hit and run” entry, we would expect the firms within this industry to price closer to marginal cost to discourage some of this activity.

2. “All else equal, an incumbent would prefer blockaded entry to deterable entry.”
   Comment.

Entry is blockaded if the incumbent need not undertake any entry-deterring strategies to deter entry. Blockaded entry may result when there are structural entry barriers, perhaps because production requires significant fixed investments. Blockaded entry may also result if the entrant expects unfavorable post entry competition, perhaps because the entrant’s product is undifferentiated from those of the incumbents.

Entry is deterred if the incumbent can keep the entrant out by employing entry-deterring strategies, such as limit pricing, predatory pricing and capacity expansion. Moreover, the cost of the entry-deterring strategy is more than offset by the additional profits that the incumbent enjoys in the less competitive environment. However, entry-deterring strategies are generally met with various degrees of success.

Control of essential resources, economies of scale and scope, and marketing advantages of incumbency are types of entry barriers. The firm who is able to use one or a combination of these entry barriers to blockade entry does not have to actively guard itself against entry and so can focus on other activities. If entry is deterred rather than blockaded, the incumbent must actively engage in predatory acts to discourage entry. A threat of entry will most definitely constrain the incumbent. Given the incumbent might prefer to be passive rather than active about discouraging entry, blockaded entry would be preferable to deterable entry.

3. How a firm behaves toward existing competitors is a major determinant of whether it will face entry by new competitors. Explain.

If a firm is “tough” towards existing competitors (for example, the firm is involved in price or non-price competition), the firm will face less entry because entrants will expect lower profits than if the incumbent were more tolerant of entry. However, if the incumbent has a “soft” stance towards the existing competitors, the entrant may take this a signal for some accommodation of
entry and thus the entry rate could be higher. The incumbent signals what post-entry competition will be like through its current behavior toward other firms in the industry.

4. Why is uncertainty a key to the success of entry-deterrence?

Entry deterring strategies include limit pricing, predatory pricing and capacity expansions.

- **Limit Pricing**: If entrants operated in a world of certainty, it would be difficult to find a rational explanation for limit pricing. In general, entering firms must be uncertain about some characteristic of the incumbent firm or the level of market demand. The incumbent wants the entrant to believe that post entry prices will be low. If the entrant is sure about the factors that determine post entry pricing, it can calculate the incumbent’s payoffs from all possible post entry pricing scenarios and correctly forecast the post entry price. If the entrant is uncertain about the post entry price, however, then the incumbent’s pricing strategy could affect the entrant’s expectations.

- **Predatory Pricing**: As with limit pricing, predatory pricing would appear to be irrational if entrants operated under certainty. If, however, entrants lack certainty, then price-cutting by an incumbent may affect the entrant’s expectations of the incumbent’s future pricing strategies. Operating under uncertainty makes it more difficult for the entrant to rule out a bad post entry scenario and therefore predatory pricing may, indeed, discourage entry.

- **Excess Capacity**: Unlike predatory pricing and limit pricing, excess capacity can deter entry even when the entrant possesses full information about the incumbent’s costs and strategic direction. If the incumbent is holding an entry deterring level of capacity it is actually in the incumbent’s interest to convey this information to would be entrants. If, however, the incumbent is unable to hold an entry-deterring level of investment, then the incumbent might hope the entrant is uncertain about the level of capacity the incumbent actually holds.

5. An incumbent is considering expanding its capacity. It can do so in one of two ways. It can purchase fungible, general purpose equipment and machinery that can be resold at close to its original value. Or it can invest in highly specialized machinery that, once it is put in place, has virtually no salvage value. Assuming that each choice results in the same production costs once installed, under which choice is the incumbent likely to encounter a greater likelihood of entry and why?

*The investment that is more visible, understandable and irreversible is more likely to deter entry. In general, a significant investment in a highly specialized relationship specific asset has a high commitment value. The value is greater because the asset has no other use. Essentially the firm whose investment has no outside option has increased its own exit barrier. Exit barriers can limit the incentives for the firm to stop producing even when the prevailing conditions are such that the firm, had it know with certainty that these conditions would prevail, would not have entered in the first place. Given the firm is less likely to exit during poor industry conditions, entry is less attractive as industry downturns will generate lower overall profits than if firms could redeploy their assets to other uses. As the question states, once the plant is build the firm has no option but utilize it within this particular industry. This sends a strong signal to the competition and they behave less aggressively. Hence if the firm invests in a fungible asset there is higher likelihood that entry will not be as deterred.*
6. In most mode of entry deterrence, the incumbent engages in predatory practices that harm a potential entrant. Can these models be reversed, so that the entrant engages in predatory practices? If so then what are the practical differences between incumbents and entrants?

Entrants and incumbents roles can be switched in the theoretical models and the results will hold true. If the entrant has deep pockets then it can engage in predatory practices to drive incumbent out. Incumbents have an advantage in that they in most cases would have created brand loyalty or reputation, network externalities, and lower costs due to learning curve. Taking all the above factors into account, it is less likely that entrant will pursue predatory practices.

7. Suppose that an entrepreneur considered opening a video store along Chemin Ste-Foy in Québec. Where should the entrepreneur position the store? Does your answer depend on whether additional entry is expected?

The Chemin Ste-Foy has video rental customers who are equally spaced along the street.

An entrepreneur who does not expect further entry should position his/her video store in the center of Québec to minimize average “transportation cost” and to attract the most customers. The customers at equal distance from the store will have equal transportation cost to the store at the center and the average transportation cost for all customers would be the lowest.

An entrepreneur who expects additional entry should position his store in a location that balances the desire to achieve as large a market as possible against the desire to soften as much as possible the post–entry price competition. This might support the merits of locating at one end of the street, anticipating that a rival might then enter at the other end. However, by locating at one end, you take the risk that a competitor could locate right next to you.

On the other hand, one might also want to consider locating in such a way as to discourage entry. Given that a potential entrant will anticipate the severity of post-entry competition in its decision, locating at the center of the street may be the most desirable option. The entrant would want to locate as far away as possible from the entrepreneur as possible in order to soften price competition, i.e. it would locate at one end of the street or the other. But given that the incumbent is in the center, this may deny the entrant sufficient market share to allow it to be profitable.

8. Consider a firm selling two products, A and B, that substitute for each other. Suppose that an entrant introduces a product that is identical to product A. What factors do you think will affect (a) whether a price war is initiated, and (b) who wins the price war?

Given the incumbent is producing two substitute goods, the incumbent has more to lose if a price war erupts. The reason is, if the incumbent lowers the price of good A to match the price of the entrant’s identical offering, the incumbent loses revenues on good B as well as on good A because customers who used to purchase B will substitute toward good A. If exit barriers are minimal, the incumbent might prefer to exit the market for good A rather than endure a price war. The incumbent is more likely to stay and fight if exit barriers are high and/or good A and B are weak substitutes. Clearly the probability of a price war decreases if the level of demand for these goods is high relative to the combined capacities of the firms.