Contents

1. The Economics of Relationships (and Porter's Five Forces)

This first part of this book concerns the economics of relationships. In this chapter, we explain what this means and motivate what is to come by asking the question, What makes some industries more profitable than others?

Which industries are more profitable, and which are less? And why?

While there is no obvious measure of industry profitability, it is pretty clear that firms in some lines of business "do better" on average than do firms in other industries. For instance, Cynthia Montgomery[1] measures the average *return on equity* for firms in different industries over the period 1990 to 2010, finding the tobacco industry in first place with an ROE of over 30%, while pharmaceuticals averaged nearly 20%, automobile-industry firms averaged around 10%, and airlines averaged -9% or so. Michael Porter[2] provides average return on invested capital (earnings before interest and taxes divided by invested capital less excess cash) for the period 1992 to 2006, and while he doesn't supply numbers for the tobacco industry or the automobile industry, he has airlines at 5.9% and pharmaceuticals at 31.7%. (Mobile Homes recorded 15.0% and Tires, 19.5%.)

One can certainly argue with the specific measures these analyses employ.[3] But it can't be disputed that some industries are more profitable—whatever that vague term means—averaging over the firms in the industry, than others. *Why?*

Porter, in the classic business strategy textbook *Competitive Strategy*,[4] provides a framework for trying to answer this question, called the *Five Forces*. This framework takes the form of a checklist: *Here are the (five) categories of things to investigate concerning a specific industry, to understand how profitable are the firms in that industry.* The five categories, or forces, and the basic logic behind including them on this checklist, are:

[1] In Cynthia Montgomery, *The Strategist*, (New York: HarperCollins, 2012)

[2] In "The Five Competitive Forces that Shape Strategy," *Harvard Business Review*, January 2008, 78–93.

[3] In particular, if, say, the return on equity for firms in the tobacco industry is three times the ROE for firms in the automobile industry, why doesn't the market price of equity in the tobacco industry increase relative to the price of equity in automobiles? Readers who have studied finance can offer a variety of explanations, such as that future prospects for earnings versus current earnings are higher in automobiles than in tobacco; the price of equity concerns future prospects, which may not be perfectly correlated with current earnings. Note: this is a question about using the E part of ROE as a measure of profitability and not about the basic assertion that some industries are "more profitable" on average than others.

[4] Michael Porter, *Competitive Strategy*, (New York: Free Press, 1980)

- *Barriers to entry.* If firms within an industry are relatively profitable, the industry will attract new entrants, to the extent that there are no barriers in the way of those entrants. And those new entrants will tend to compete away the relatively good profits that drew their attention. So, high barriers to entry tend to go along with supernormal profitability. (And, for declining industries, *barriers to exit* will mean subnormal profits, insofar as firms in the industry find it hard to get out.)

- *Substitute and complementary products.* Firms inside an industry are more profitable the higher the prices they can charge their customers. Insofar as there are substitutes for what the firms are selling, they are limited in how high they can raise their prices. Hence, an industry whose products have a lot of good substitutes is likely to be less profitable on average than one whose products have few, bad, or no substitutes. On the other side, demand for an industry's products or services is higher—and they can charge higher prices, hence be more profitable—the more available and cheaper are goods that are complementary to what they sell. (Automobile manufacturers are more profitable, for instance, when the price of fuel is lower.)

- *Supplier power.* Suppose firms in an industry are making supernormal profits. Suppliers to the industry, *if they can,* will suck those profits upstream, lowering those profits. The key here is the italicized *if they can*: It is a matter of the relative bargaining strength of the suppliers to the industry vis-à-vis firms in the industry. If there are lots of potential suppliers who compete among themselves, firms in the industry needn't worry much about having their profits sucked upstream. If a critical input to the industry is supplied by a single and powerful supplier, firms in the industry must worry, and perhaps even resign themselves to not being hugely profitable.

- *Customer power.* The category of *substitutes* captures one aspect of the relationship between firms in the industry and their customers: Can customers find good alternatives to what the firms in the industry are selling? But even if there are no good substitutes, customers may be able to bargain for low prices. Suppose, for instance, that a large share of the retail market in a particular good is held by Walmart. Firms that manufacture this good probably don't get very high margins on what they sell to Walmart for resale.

- *Rivalry.* The fifth and final of Porter's forces is rivalry: How hard do firms within the industry compete with one another? If competition among firms in the industry is fierce, with price cutting and price wars the norm, profits will be relatively low. If firms in the industry compete in restrained fashion, profits are more likely to be relatively high.

Those are Porter's Five Forces.[5] We might consider adding a sixth to his list, namely the force of the legal, political, and social environments within which the industry operates. Legal forces certainly affect what firms can and cannot do—think of the impact of antitrust laws, or regulatory forces—and, perhaps more subtly, the political and social environments can be important as well. Some aspects of the legal, social, political, and social environments can be incorporated into Porter's original list of five. For instance, laws against explicit bargains between rivals can and should be considered under rivalry. One important factor of production in most industries is labor, and laws regarding the ability of employees to organize (form a union) and general societal norms about how unions, where they exist, interact with management, should certainly be part of your analysis of supplier power.

But some aspects of the legal, political, and social environments don't fit so neatly into one of Porter's five categories. Can firms within the industry rely on their lobbying power to gain favorable treatment by the government? Do social concerns about the industry's products (think, tobacco; power generation using fossil fuels; lumber and paper products) affect the taxes they face or just the hostility their products arouse in the general populace? Are firms affected, for good or for ill, by temporal shifts in social mores? When and if you conduct a Porter's Five Forces analysis of an industry, it is a good idea to make a special effort to think about these sorts of things, to be sure you don't miss important factors influencing the industry's firms.

1.1. The Economics of Relationships

In the world of Strategic Management, Porter's Five Forces is one of the pillars of analysis. Different strategy textbooks give variations on this specific theme, but in some form or another, the strategic analysis of an industry often starts with a filling-out of the specific details of these "forces."

But while it is one thing to say, "Think about rivalry in the industry," or "Gauge the relative bargaining positions of firms in the industry and their suppliers/customers," it is another thing to know *how* to do this. And while Porter provides some tendencies in how these factors affect profitability—for instance, weaker suppliers tend to enhance profitability—these are only tendencies. When we have a better, more nuanced understanding of how suppliers are connected to the industry in question, we might learn—in particular cases, we *will* learn—that stronger suppliers can sometimes be better for firms in the industry.

Ultimately, a lot of this comes down to the *relationships* the firms within the industry have with one another and with their various suppliers and customers:

[5] A more detailed description of the Five Forces can be found in the *Online Supplement,* which is available online at https//micro4managers.stanford.edu.

- This is perhaps most obvious when it comes to the relationships between firms and their customers, and between firms and their suppliers. One category of supplier, in particular, deserves emphasis: suppliers of labor inputs or, in other words, the employees of the firm. How a firm deals with its employees is all about relationships.
- And the importance of relationships to rivalry is obvious.
- Perhaps less obviously, relationships are important to entry barriers: A potential entrant to an industry must evaluate many things when contemplating entry, such as: How much of the market can I expect to capture?; how high will my fixed costs be—can I quickly gain enough share to achieve profitability?; do incumbent firms have a cost advantage, based on their experience and technological know-how? But other questions are: What is the relationship between firms already in the industry and suppliers of critical inputs to production? Do incumbent firms have critical suppliers locked up? What is the relationship between incumbent firms and customers? Will I be able to wean away enough customers to make this worth my while? If the good is retailed by others, will I be able to convince retailers to give my product shelf space? What are the relationships between the industry—and firms within the industry—and important legal and political entities that set the "rules" that the firms must follow? And, perhaps most important, what will be the reaction of incumbent firms if and when I enter? Will they "welcome me to the club" or "go to the mattresses" in an attempt to blockade my entry? In other words, what (can I anticipate) will be *my* relationship with them, if I enter?
- And the relationships between firms in the industry and legal, legislative, and administrative organs of government, as well as with the industry's relationships with the general society within which it is embedded, are all important.

Therefore, to carry out an intelligent analysis of the Five Forces, you need to understand the nature of economic relationships. But an understanding of the economic nature of relationships goes beyond industry analysis. For an individual firm (or other organization), the level of success it can achieve, both in absolute terms and relative to other firms with which it competes, is often hugely influenced by how well it manages its many relationships with other parties. So we begin this book with the economics of relationships.

1.2. Economics or Psychology?

Are relationships governed by economic forces or by psychology? The short answer is, Yes. Both economic and psychological considerations come into play. This fact has substantial consequences for what we do in this first part of the

book. Most readers, I expect, have had previous exposure to textbook economics. Most readers will think of economics as being all about the famous picture and slogan: *Equilibrium price is where supply equals demand*. We get to this picture and slogan in Part IV, but if you remember that stuff and, even more, if you think that supply equals demand is what economics is about, stop thinking that way, at least for now. Supply equals demand is largely about situations in which relationships play no part: It is about the economics of large numbers of otherwise anonymous buyers and sellers. That's useful stuff in some contexts, but not when you are trying to understand the economic relationships that connect, say, United Airlines and Delta Airlines in their competition for passengers between Los Angeles and New York City, or between Toyota Motors and its network of suppliers, or between you and your next employer. In relationships, partners to the relationships are anything but anonymous. They have specific identities, known as such to one another. And how the parties act and react are influenced both by the economics of the situation and by its psychology.

In consequence, if you recall (fondly or not) the sharpness and precision of supply equals demand, where one price and only one price would clear markets, you must now be ready for a lot less sharpness and precision. And with that warning, let's get started by learning a language for modeling and analyzing relationships.

Index