

# Types of Competition and the Theory of Strategy: Toward an Integrative Framework

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*Three concepts of competition, each reflecting different research traditions in microeconomics, are discussed: Industrial Organization competition, Chamberlinian competition, and Schumpeterian competition. The implications of each for normative theories of strategy are discussed, and a single framework which describes the types of competitive forces a firm is likely to face over time is suggested.*

Research in strategy usually is aimed at developing normative theories which firms can apply in choosing strategies that generate high returns on investments (Henderson, 1979; Porter, 1980). Much of this research rests on the observation that the nature and character of the competitive conditions facing a firm determines a firm's strategic opportunities, as well as the return potential of exploiting those opportunities. This emphasis on the strategic implications of competition suggests a close link between the development of normative theories of strategy and the academic discipline of microeconomics (Caves & Porter, 1977; Porter, 1981). For of all the behavioral sciences, microeconomics is most closely linked with the study of competition and competitive behavior among firms (Hirshleifer, 1980).

Unfortunately, the concept of competition is not unambiguous as it is used in microeconomics. Different microeconomic research traditions use this concept in subtly different and interdependent ways. Apparent differences between alternative theories of strategy may reflect subtle differences in the concept of competition they employ. These differences, in turn, may reflect different microeconomic research traditions upon which different strategy theorists draw. Theoretical debate and integration in the area of business strategy can be greatly facilitated if these different usages

of the concept of competition are defined and their interrelationships are described. The purpose of this paper is to isolate the strategically relevant ways in which the concept of competition has been used in microeconomics, and to outline the implications each has for the development of a normative theory of strategy. In tracing these implications, a general framework within which different concepts of competition can be integrated into the theory of strategy will be suggested.

While the concept of competition is used by a large number of microeconomists in a variety of different ways, most usages of this concept that either have been already used by strategy theorists, or seem likely to be used in the near future, seem to reflect one of three broad research traditions in microeconomics: industrial organization (IO) economics (Bain, 1956, 1968; Mason, 1939), Chamberlinian economics (Chamberlin, 1933), and Schumpeterian economics (Nelson & Winter, 1982; Schumpeter, 1934, 1950). Of these three conceptions of competition, the IO economic version has been most completely incorporated into currently popular theories of strategy. This integration has been accomplished by Porter (1974, 1980), Caves (1980), Caves and Porter (1977), and Spence (1977, 1979), among others. However, both Chamberlinian and Schumpeterian notions

of competition represent logical and empirical alternatives to the more widely applied IO concept of competition. Indeed, these other research traditions may help overcome many of the limitations of the IO model cited even by IO proponents (Porter, 1981) in developing normative theories of strategy. In this sense, these three concepts of competition are not logically contradictory, but rather, taken together, form a more complete picture of the competitive forces facing firms.

The analysis of the concept of competition, as it is used in microeconomic research, begins with a brief review of the IO, Chamberlinian, and Schumpeterian research traditions, with special reference to the character of the competitive forces that are thought to influence firms in each. Also the implications for normative theories of strategy for each of these three concepts of competition are discussed. Finally, some ways in which these three different conceptions of competition can be integrated into a single framework describing the types of competitive forces facing a firm over time are suggested.

### **Industrial Organization Competition**

The concept of competition in industrial organization economics, and its implications for normative theories of strategy, have been reviewed previously (Caves, 1980; Porter, 1981). Thus, we the key points of these reviews will be briefly summarized here.

The basic concept of competition employed in IO economics is fundamentally unchanged since this model was initially developed by Mason (1939) and Bain (1956, 1968). In this model, returns to firms are determined by the structure of the industry within which a firm finds itself. The key attributes of an industry's structure that are thought to have an impact on firm returns include (Porter, 1981) the existence and value of barriers to entry (Bain, 1956), the number and relative size of firms, the existence and degree of product differentiation in the industry, and the overall elasticity of demand for the industry (Porter, 1980). Industries with large barriers to entry, with a small number of firms, with a large degree of

product differentiation, or low demand elasticity are characterized by firms earning higher returns than firms in industries without these attributes. Mason and Bain's insights into the relationship between the structural characteristics of industries and performance of the firm have come to be known as the structure, conduct, and performance paradigm, for firm conduct (i.e., strategy) and performance are presumed to follow directly from an industry's structural attributes (Porter, 1981).

The IO model was developed originally to assist government policy makers in formulating economic policy. By focusing on the structural characteristics of industries, policy makers could anticipate those industries where firm returns will be greater than a socially optimal fully competitive level (Hirshleifer, 1980). With a list of the structural attributes that reduce competition in an industry, policy makers can design regulations and other remedies that will result in socially optimal levels of intra-industry competition. Given this strong policy orientation, it is not surprising that much of the research in IO microeconomics has focused, first, on testing the empirical validity of the structure, conduct, and performance paradigm, and second, on understanding the policy implications of this theoretical approach (Caves, 1980).

In their attempt to use IO thinking to develop a normative theory of competitive strategy, strategy theorists have turned the original policy objectives of this model upside down. For, instead of seeking to assist policy makers in reducing returns of the firm to a fully competitive level, strategy theorists have sought to develop models to assist firms in obtaining greater than normal economic returns on their business investments (Porter, 1980). Within the context of the structure, conduct, and performance paradigm, the appropriate focus of firms seeking to obtain higher than normal economic returns is apparent. Firms seeking to obtain high returns on their strategic investments should focus on creating and/or modifying the structural characteristics of their industry to favor high returns. Thus, such

firms should attempt to create high barriers to entry, should reduce the number of firms in their industry, should increase product differentiation, or reduce demand elasticity (Porter, 1980). Firms that successfully accomplish one or several of these tasks will find themselves protected from return-reducing competitive entry, and can enjoy sustained periods of superior financial performance.

In applying the IO framework in developing a normative theory of strategy, it soon becomes apparent that different groups of firms can attempt to alter or exploit different structural attributes of the same industry. In this manner, different strategies of firms can generate returns greater than what would be expected in perfectly competitive conditions. This observation has led to the development of the concept of strategic groups (Caves & Porter, 1977). A strategic group is a set of firms that are attempting to modify or exploit similar structural characteristics of a given industry. Recently, empirical work by Hatten and Schendel (1976) and Harrigan (1985), among many others, has tended to verify the existence, and competitive importance, of these strategic groups.

### Chamberlinian Competition

Both IO economics and Chamberlinian economics seek to develop explanations of the conduct of the firm (i.e., strategy) and performance. However, where IO economics begins with a focus on industry structure and then moves to conduct and performance, Chamberlinian economics begins with a focus on the unique assets and capabilities of individual firms, and then traces the impact of these idiosyncratic organizational traits on the strategies firms pursue and returns to those strategies. For Chamberlin (1933) and his contemporaries (Robinson, 1933), competition in industries *always* goes forward between firms with different, though perhaps overlapping, resources and characteristics. Certain of these resource and asset differences may allow some firms to implement strategies that alter an industry's structure in ways that uniquely benefit these

firms. For this reason, firm heterogeneity can represent an important source of competitive advantage for firms (Barney, 1985; Demsetz, 1973).

Some of the key differences between firms that can lead to differences in the performance of firms cited by Chamberlin (1933) include: technical know-how, reputation, brand awareness, and the ability of managers to work together. Patents and trademarks were the two differences most closely analyzed by Chamberlin (1933).

Because firms in an industry or group typically have unique, but overlapping, resources and capabilities, competition within an industry has many of the characteristics of perfect competition, as it has been described in neoclassical microeconomics (Hirshleifer, 1980), as well as many of the characteristics of a monopoly. Chamberlin called this type of competition *monopolistic competition*.

Chamberlin was able to show that industries characterized by monopolistic competition also will be characterized by competitive equilibria in which there will be a distribution of economic returns to firms. In other words, at least some firms in these industries can obtain sustained periods of superior financial performance by exploiting their unique assets and capabilities. Chamberlin's work suggests an important connection between monopolistic competition and the theory of strategy, for the objective of normative theories of strategy is to specify ways firms can obtain this level of economic performance (Porter, 1980).

Though perhaps less well developed in the strategy literature than the industry structure implications of IO economics, the strategic implications of Chamberlin's analysis of firm individuality in competition are no less important. Given that differences between the skills and abilities controlled by firms can lead to differences in returns from implementing strategies, Chamberlin's logic implies that firms should seek to choose strategies that most completely exploit their individuality and uniqueness. By differentiating themselves in this manner, firms may be able to obtain relatively high levels of economic return

from implementing strategies. This is fundamentally the message of strategy theorists like Learned, Christensen, Andrews, and Guth (1969), Lenz (1980), Kotler (1976), and Stevenson (1976), who strongly urge firms to choose strategies that exploit their individual and unique strengths and capabilities, while avoiding their weaknesses. This type of analysis suggests that any organizational assets that can have a positive impact on the ability of firms to implement strategies are potential strengths that should be exploited when strategic choices are made. Such strengths are the distinctive competencies cited by numerous authors (e.g., Thompson & Strickland, 1980).

Notice that the view of competition developed by Chamberlin does not contradict the views developed by IO economists. Indeed, in many ways, these two models, though they have different emphases, are strongly complementary. Industry structure has a strong effect in determining which of a firm's unique skills and assets can be exploited when choosing a strategy. Also, within IO economics, there is a recognition that firms can differ in terms of the strategically relevant skills and capabilities they control, and that these differences partially determine the conduct of the firm. Indeed, Bain's (1968) discussion of atomistic competition with product differentiation in many ways parallels Chamberlin's discussion of competition among heterogeneous firms. And the strategic implications of these two arguments are precisely the same; that is, firms should implement strategies, including product strategies, that cannot be duplicated by rivals. However, this is a broader reading of IO economics than most previous efforts to translate the IO model into a normative theory of strategy would suggest. Porter (1981), for example, argued that IO economics can only help firms describe the structure of their industry. This view fails to recognize those parts of IO economics which focus on the idiosyncratic attributes of different organizations (Bain, 1968) which can be used by firms to describe their unique strengths and capabilities. Later in this paper, the complementarity of these two models is used to develop an integrated

framework of the types of competition that firms face over time.

Among strategic theorists and practitioners, the importance of combining Chamberlinian analyses of firm individuality with IO analyses of industry structure when choosing strategies is widely acknowledged. The widely applied WOTS-UP ("weakness, opportunities, threats, and strengths underlying planning") and SWOT ("strengths, weaknesses, opportunities, and threats") (Thompson & Strickland, 1980) approaches to strategic management are examples of such an integration of these different conceptions of competition. Even those strategy theorists who focus almost exclusively on industry structure in strategic choice acknowledge that the analysis of a firm's unique skills and assets can and should play some role. Porter (1980, pp. 6-7, italics added), for example, argued,

*Firms will each have unique strengths and weaknesses in dealing with industry structure, and industry structure can and does shift gradually over time. Yet understanding industry structure must be the starting point for strategic analysis.*

For these authors, applying IO concepts to characterize industry structure suggests which categories of strategies a firm should consider (i.e., barriers to entry, product differentiation, etc.), while Chamberlinian logic suggests which particular strategies, within those broad categories, firms should choose to implement, that is, strategies that exploit a firm's unique skills, resources, and distinctive competencies. Thus, an application of Chamberlin's logic would assist firms in deciding, for example, which particular barrier to entry or which particular type of product differentiation it should implement.

The concept of a strategic group also has important implications within a Chamberlinian framework. For although Chamberlin begins with the assumption that firms control unique bundles of assets, capabilities, and resources, he does observe that these bundles may overlap, and thus certain firms may pursue similar strategies. Firms with such overlapping capabilities and similar strategies can be thought of as strate-

gic groups (Caves & Porter, 1977). For Chamberlin, firms rarely enjoy a state of pure monopoly where they uniquely control a set of valuable resources. Rather, relations between firms are almost always partly monopolistic and partly competitive. This overlap of organizational resources within the Chamberlinian framework suggests the possibility that strategic groups in an industry will exist.

### Schumpeterian Competition

While both IO and Chamberlinian conceptions of competition have, to some extent at least, been applied in the development of normative theories of strategy, the concept of competition contained in Schumpeterian economics has resisted such translation. Moreover, even those aspects of IO (Bain, 1968) and Chamberlinian logic that are similar to Schumpeter's view of competition also have resisted translation into strategic thinking. This is not because Schumpeterian competition is somehow a less "real" form of economic competition than either IO or Chamberlinian competition. Rather, IO and Chamberlinian economics have been translated into theories of strategy because both these models presume a level of stability in the competitive dynamics facing a firm sufficient to allow a firm to anticipate competitive threats and opportunities, and then to respond to these opportunities appropriately. These are models where strategic planning and other strategic management efforts are very appropriate. Competition, as it is characterized by Schumpeter (1950), is not so stable and certainly less predictable. Though classic strategic management techniques can be applied in responding to and anticipating Schumpeterian competition, such efforts are likely to be less directly applicable, and their results less predictable.

Schumpeter's (1950) original objective was to describe the process of economic development in Western economies. In this effort, Schumpeter came to focus on major revolutionary technological and product market shifts, and to dismiss as relatively unimportant, in the long run, price and

other competitive actions of firms within a relatively stable industry. This was not to suggest that such competition did not exist, but rather that it was of secondary importance when describing the evolution of an economy through history. Thus, Schumpeter (1950, pp. 82–83) argued that,

Capitalism, then, is by nature a form or method of economic change and not only never is but never can be stationary. The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates. This process of Creative Destruction is the essential fact about capitalism.

For Schumpeter, these revolutionary innovations in product, market, or technology can only be imperfectly anticipated by firms. Sometimes firms in an industry may survive a revolutionary innovation to become important actors in a succeeding industry. It may even be the case that investments made by a currently successful firm will themselves generate a Schumpeterian revolution. Other times, a revolutionary innovation will have the effect of displacing all currently competing firms. Moreover, in the competitive setting envisioned by Schumpeter, when major innovations do appear, their ultimate impact may not be known for some time, at which point it may be too late for older firms with older technologies and skills to compete in new markets requiring new skills. On the other hand, guessing too early that a given innovation will become dominant may jeopardize a firm's long-term survival by betting on a technology or market that turns out not to be dominant.

Schumpeter's fundamental insights into the character of revolutionary competition have spawned a great deal of research in an attempt to describe reactions of firms facing competitive uncertainty that cannot be fully reduced through the application of strategic management techniques (Alchian, 1950; Nelson & Winter, 1973, 1974, 1982; Winter, 1971, 1975). Recent developments in organizational theory also can be traced to their Schumpeterian roots (Hannan & Freeman, 1977; McKelvey, 1982).

Despite this literature, with few exceptions (Barney, 1985; Lippman & Rumelt, 1982; Rumelt & Wensley, 1980) the implications of Schumpeterian competition for normative theories of strategy remain relatively unexplored. Some indication of how a Schumpeterian view might be translated into strategic theory can be seen in the work by Nelson and Winter (1982) which emphasizes the advantages and costs of following a product innovation policy, in which case a firm seeks to create technological revolution, versus a product imitation strategy, in which case a firm allows others to absorb the risk of innovation at the cost of a first mover advantage. Also, Hannan and Freeman's (1977) analysis of appropriate organizational responses under different environmental conditions has potential strategic implications. However, both Nelson and Winter's and Hannan and Freeman's models presume that firms possess, *ex ante*, relatively complete information about the future of their competitive environment. This assumption is inconsistent with Schumpeter's original analysis, a point acknowledged by Nelson and Winter (1982). The lack of complete *ex ante* information, and the strategic uncertainty it implies, creates an important role for luck in defining the returns firms obtain from their strategizing efforts (Barney, 1985; Lippman & Rumelt, 1982). For after a firm has engaged in strategic management efforts and reduced the level of competitive uncertainty it faces to the extent possible, then the uncertainty remaining in its competitive environment is irreducible. Any advantages or disadvantages unforeseen shifts in the environment create for a firm are primarily a manifestation of its good or bad luck. Of course, the concept of luck is difficult to incorporate into normative theories of strategy, for luck typically is not subject to managerial manipulation.

Despite the obvious difficulties in culling straightforward strategic management implications from the Schumpeterian model, it nevertheless must be admitted that Schumpeterian competition is an empirically valid form of competition that should be integrated with more traditional IO

and Chamberlinian concepts in the development of a normative theory of strategy. For example, applying the Chamberlinian concept of competition in a Schumpeterian context, one could conclude that certain firms in an industry may have the unique skills required to be the source of revolutionary changes in that industry (Peters & Waterman, 1982). Other firms may have the unique ability to rapidly adapt to whatever revolutionary changes might occur (Meyer, 1982; Starbuck, 1983). Firms that possess either of these organizational capabilities may have a greater likelihood of survival in industries threatened by revolutionary Schumpeterian changes than firms without these capabilities. Also, Schumpeterian changes in an industry may have the effect of altering an industry's, or strategic group's, structural attributes, which in turn can have an impact on the performance of the firm (Porter, 1980). This suggests a close relationship between Schumpeterian competition and IO competition, for the IO model suggests those classes of revolutionary changes that might lead to Schumpeterian shifts in an industry, that is, changes in an industry's underlying structural attributes. However, as long as some irreducible uncertainty remains in an industry, firms will be unable to anticipate perfectly which particular changes in an industry will cause a revolution, or which firm or firms will be the sources of this change.

### **Toward an Integration of Concepts of Competition**

Key attributes of the three conceptions of competition that have been reviewed are summarized in Table 1. Notice that in all cases, the unit of analysis traditionally has included the industry. This is consistent with the policy orientation of much of microeconomics, and represents one of the most significant challenges in translating these concepts from microeconomics into the more applied and firm-oriented discipline of strategy.

It already has been suggested that these three forms of competition are highly interrelated. Indeed, IO economists have begun to include

Table 1  
*A Summary of the Characteristics of Industrial Organization, Chamberlinian, and Schumpeterian Concepts of Competition*

	IO Competition	Chamberlinian Competition	Schumpeterian Competition
Unit of Analysis	industry	industry/firm	industry/economy
Core Concepts	structure conduct performance	monopolistic competition: competition between heterogeneous firms	the engine of creative destruction
Micro-Economic Authors	Bain, 1956 Bain, 1968 Mason, 1939	Chamberlin, 1933 Robinson, 1933	Schumpeter, 1939 Schumpeter, 1950 Nelson & Winter, 1982
Strategy Theorists	Porter, 1980 Caves & Porter, 1977	Kotler, 1976 Learned et al., 1969	Lippman & Rumelt, 1980 Barney, 1985

both the individuality of the firm and irreducible uncertainty in their models of the conduct and performance of the firm (Bain, 1968). Certainly, at any given point in time a firm may face all three types of competition. Below, how IO and Chamberlinian competition can be integrated within the context of Schumpeterian competition to create a single framework describing the different types of competition a firm is likely to face is discussed. This integrative framework suggests a developmental model of competition within an industry which firms can use to describe the different types of competition they face within an industry over time.

From the point of view of the character of the competitive forces facing firms, industries begin as a result of Schumpeterian revolutions in markets or technologies or consumer demands, and so on. The sources of a Schumpeterian revolution cannot, by definition, be perfectly anticipated, though after the fact they usually can be described. This revolutionary change defines the character of competition in an industry by defining the technological and market bases of competition, the organizational resources and assets that are strategically valuable, and the organizational resources and assets that are strategically irrelevant. By defining what skills and abilities are strategically valuable, a Schumpeterian

revolution also defines which firms are likely to be successful early on, which firms must modify their resource base to become successful, and which firms are likely to not survive.

If it were possible to anticipate a Schumpeterian revolution with certainty, then most firms would be able to plan to respond accordingly by acquiring the appropriate resources and implementing the necessary strategies. However, Schumpeterian revolutions only can be imperfectly anticipated, even by firms whose innovations in product or technology turn out to create them. Because they only can be imperfectly anticipated, the effects of Schumpeterian revolutions of defining some organizations' abilities and assets as newly valuable, while simultaneously defining other organizations' abilities and assets as no longer valuable, are partly stochastic in nature.

Firms that have what turn out to be newly valuable skills and assets are, to some extent, lucky. These lucky firms may be able to retain their resource and skill advantages for a substantial period of time, thereby becoming dominant actors in the newly defined industry. Of course, after the fact, it always will be possible to "explain" how the superior strategic management skills of successful firms allowed them to anticipate Schumpeterian changes that other

firms could not anticipate, and thus to "explain" how these firms were able to implement strategies that lead to their success. However, as long as there is some irreducible uncertainty in a firm's competitive environment, good fortune and luck play a role in determining the extent of a firm's financial success after a Schumpeterian revolution has occurred.

All this is not to suggest that strategic management and planning efforts are irrelevant within Schumpeterian competition. Firms that fail to engage in these activities will not anticipate that which was anticipatable about a Schumpeterian revolution. Such firms, if they are to be successful, must rely to a greater extent on their good fortune and luck. On the other hand, firms that do engage in these strategic management efforts will be able to reduce the competitive uncertainty they face to the extent possible, and therefore, can obtain some advantage in preparing for the future. However, as long as the nature and character of a Schumpeterian revolution cannot be perfectly anticipated, then such strategic management efforts cannot be expected to always generate advantages for a firm.

While successful firms in this competitive context must be partially lucky, firms with what turn out to be nonvaluable assets are, to some extent, unlucky (Barney, 1985). These firms will need to engage in a struggle to obtain those resources and skills that will allow them to successfully compete in a new industrial environment. Firms that are particularly flexible may have a competitive advantage when adapting to rapidly changing environmental conditions. Firms that do not or cannot change are not expected to survive (Hannan & Freeman, 1977).

After a Schumpeterian revolution has defined the competitive bases of a new industry, including which firms do and which firms do not control strategically valuable assets and abilities, IO and Chamberlinian competition become more relevant strategically, although Schumpeterian shocks which affect, but do not displace, an industry are also important features of the competitive landscape which firms face. Normatively,

the industry analysis apparatus derived from the IO model suggests that firms should attempt to implement barriers to entry, product differentiation, and so on, to either protect or create niches within which they can obtain above normal economic returns. The Chamberlinian model suggests that these strategies should be implemented by exploiting the unique strategically relevant skills and resources controlled by firms, that is, their distinctive competencies. Firms without strategically valuable skills must either acquire them or face extinction.

Interfirm rivalry, as described by Porter (1980), will continue within these industries, perhaps for relatively long periods of time. Firms will continue to jockey for positions which capitalize on their competitive advantages. This will continue as long as the bases for competition originally defined by the Schumpeterian revolution either remain stable or evolve predictably. However, neither IO nor Chamberlinian strategies usually will protect firms from incompletely anticipatable Schumpeterian revolutions that have the effect of redefining the fundamental bases of competition in an industry. If and when these revolutions occur, what were viable IO and Chamberlinian strategies may become suddenly irrelevant.

## Conclusion

Competition, a concept that is central to normatively oriented strategic thinking, also is a concept that can mean different things at different times to different firms. By isolating three of the most common usages of this concept in microeconomics, the different types of strategies that different types of competition imply have been explored. This analysis has indicated that these conceptions of competition can be integrated into a single developmental framework. This framework can be used to develop integrated theories of strategy. Such integrated theories of strategy are important, for most firms, at any given point in time, face both IO and Chamberlinian competition and live under the constant threat of either Schumpeterian shocks or revolutions. Moreover,



the impact of previous Schumpeterian revolutions on an industry's current structure can be profound. Strategies that deal with all of these

problems simultaneously must be developed in order to increase the likelihood that firms will survive and prosper over time.

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