The Comparative Advantage Theory of Competition

A new theory of competition is evolving in the strategy literature. The authors explicate the foundations of this new theory, the "comparative advantage theory of competition," and contrast them with the neoclassical theory of perfect competition. They argue that the new theory of competition explains key macro and micro phenomena better than neoclassical perfect competition theory. Finally, they further explicate the theory of comparative advantage by evaluating a market orientation as a potential resource for comparative advantage.

The emperor has no clothes.

—Hans Christian Andersen

Inree recent streams of research portend major changes in marketing theory and practice: works addressing strategic issues in marketing theory and research (Aaker 1988; Bharadwaj, Varadarajan, and Fahy 1993; Day and Wensley 1988; McKee, Varadarajan, and Pride 1989), those advocating a market orientation for superior firm performance (Day 1984; Day and Nedungadi 1994; Kohli and Jaworski 1990; Narver and Slater 1990; Shapiro 1988; Webster 1994), and those emphasizing the desirability of relationship marketing in strategic network competition (Berry and Parasuraman 1991; Dwyer, Schurr, and Oh 1987; Morgan and Hunt 1994; Parvatiyar, Sheth, and Whittington 1992; Thorelli 1986; Webster 1992). However, not all marketers are sanguine about the prospects for these three streams. Day (1992, p. 324, 328) points out that "within academic circles, the contribution of marketing to the development, testing, and dissemination of strategy theories and concepts has been marginalized over the past decade," and he observes that "the marketing concept is nowhere to be found in ... discussion[s] of competing principles of management presumed to be causally related to the effectiveness of organizations." Moreover, he concludes that "the prognosis for marketing ... is not encouraging" in the ongoing "strategy dialogue" regarding networks and alliances.

Our central thesis is that the strategy dialogue Day refers to is evolving toward a new theory of competition—one that has significant advantages over neoclassical theory. Our article contributes to the development of this new theory and examines its implications for marketing. Specifically, we

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draw on (1) the evolving resource-based theory of the firm from the strategy literature (Barney 1991; Conner 1991), (2) the works on competitive advantage from marketing and industrial organization economics (Bharadwaj, Varadarajan, and Fahy 1993; Day and Wensley 1988; Day and Nedungadi 1994; Porter 1980, 1985, 1990), (3) the theory of competitive rationality from Austrian economics (Dickson 1992), and (4) the theory of differential advantage from marketing and economics (Alderson 1957, 1965; Clark 1961) to develop the foundations for a theory of competition that we label the "comparative advantage theory of competition." We argue that this theory explains key macro and micro phenomena better than does neoclassical theory.

By "neoclassical theory" we mean the theory of perfect competition, and "neoclassicist," then, is anyone whose work derives from, is consistent with, or assumes the foundational premises of perfect competition. Because economics texts present perfect competition as the ideal form of competition, it is the basis for most public policy (at least in North America). Furthermore, perfect competition is the only theory of competition that college students ever see. Although perfect competition theory casts marketing activities as "creators of market imperfections," because marketing texts themselves present no rival theory, our own students see only perfect competition theory. Indeed, even marketing's academic literature often adopts the neoclassical view. Consider such phrases as "assume a competitive market," "abnormal profits," and "economic rents." These expressions-not uncommon in marketing-are terms of art in neoclassical theory and mean, respectively, "assume perfect competition," "profits different from that of a firm in an industry characterized by perfect competition," and "profits in excess of the minimum necessary to keep a firm in business in long-run competitive equilibrium." Because perfect competition is ideal, when marketing scholars refer to a marketing activity as "rent seeking," they imply that the activity is economically undesirable from a public policy perspective. We should be mindful that when one adopts a term of art

¹Given the prominent role of the resource-based theory of the firm in our own theory, an alternative, equally appropriate label would be the "resource-advantage theory of competition."

from neoclassical theory, one also adopts implicitly the theory that gives the term its meaning. Therefore, we argue that marketing academics and practitioners should avoid certain neoclassical terms.

The dominant status of perfect competition notwith-standing, there have been numerous critiques of neoclassical theory, ranging from Austrian to evolutionary schools of economics. (Even the works of many industrial organizational economists can be viewed as resulting from a dissatisfaction with neoclassical theory.) Although we acknowledge and appreciate these critiques, we do not overview them. We develop the foundations for a rival to perfect competition theory—we do not just critique it. One reason that perfect competition theory has retained its dominant status despite its many deficiencies is the absence of a well-articulated rival that has superior explanatory power. We maintain that the strategy literature is evolving toward just such a rival and our objective here is to articulate its foundational premises.

First, we identify the key phenomena that any satisfactory theory of competition should be capable of explaining, and then we examine how perfect competition attempts to explain these key phenomena. Next, we develop the foundations for our theory and discuss its explanatory power. Finally, we evaluate a market orientation within the context of the comparative advantage theory of competition.

Competition and Explanation

Theories contribute to scientific understanding by explaining and predicting phenomena (Hunt 1991). Although a theory of competition might be required to explain numerous phenomena, the single most important macroeconomic phenomenon of the twentieth century has undoubtedly been the collapse of planned or "command" economies, which were premised on cooperation among state-owned firms under the direction of a central planning board, and the concomitant triumph of market-based economies, which are premised on competition among self-directed, privately owned firms. Perhaps the greatest "natural experiment" in recorded history is now complete and the results are in: Economies premised on competing firms are far superior to economies premised on cooperating firms in terms of total wealth creation, innovativeness, and overall quality of goods and services. Both the quantitative lack of goods and services (i.e., low gross domestic product) and the qualitative fact that the goods that were produced were so shoddy plagued Eastern bloc economics. Therefore, why economies premised on competition are far superior to command economies in terms of the quantity, quality, and innovativeness of goods and services produced is a macro-level question that should be answered by any satisfactory theory of competition.

The micro phenomenon of the radical heterogeneity of firms is strikingly evident throughout the world's market-based economies. Across and within countries, and across and within industries, firms differ radically as to size, scope, methods of operations, and financial performance:

 Some firms are so large that their sales exceed the GDP of many countries, whereas others sell flowers on a single street corner:

- Some produce hundreds of products and others sell only one:
- 3. Some are vertically integrated "hierarchies" (Williamson 1975) and others specialize in one activity;
- 4. Some are profitable and others are unprofitable; and
- Some consistently maintain relatively high profits and others "fall back into the pack."

A theory of competition, we argue, should satisfactorily explain the micro phenomenon of firm diversity. Specifically, why do market-based economies have such an extraordinarily diverse, ever-changing assortment of firms? We now examine the theory of perfect competition and explore how it attempts to explain both the macro and micro phenomena.

The Neoclassical Explanation

Table 1 displays the foundational premises of the neoclassical theory of perfect competition. As to consumer behavior, neoclassical theory assumes that demand is homogeneous for every industry's product. That is, though consumers are allowed to prefer different quantities of each industry's product (heterogeneity across generic products), their tastes and preferences are assumed to be identical with respect to desired product features and characteristics (homogeneous within industries). Consumers also are assumed to have perfect information, which is costless to them, about the availability, characteristics, benefits, and prices of all products. Consumer motivation, one dimension of human motivation, is self-interest or utility maximization.

The firm's objective is profit maximization or, in more sophisticated versions, wealth maximization, that is, the maximization of the net present value of future profits. Acting under conditions of perfect and costless information, neoclassical theory focuses on the firm producing a single product using the resources of capital, labor, and sometimes land. These "factors of production" are assumed to be homogeneous and perfectly mobile; that is, each unit of labor or capital equipment is assumed to be identical with other units and can "flow" from firm to firm without restrictions. The role of management is to respond to changes in the environment by determining the quantity of product to produce and implementing a production function that is identical across all firms in each industry.

Competition in neoclassical theory, then, is each firm in an industry (1) in the short run adjusting its quantity of product produced in reaction to changes in the market price of its product and the prices (costs) of its resources and other inputs and (2) in the long run adjusting the scale of its plant. Therefore, the firm's environment strictly determines its

²These foundational premises are implied by the standard treatment of the axioms of perfect competition found in economics texts (e.g., Gould and Lazear 1989).

³Etzioni (1988) discusses the three conceptualizations of utility and utility maximization in neoclassical economics: (1) a pleasure utility (ethical egoism in moral philosophy terms), (2) a tautology, and (3) an empty mathematical abstraction. He notes that only pleasure utility, or "P-utility," maximization is a substantive thesis that could potentially be empirically tested. Furthermore, in empirical works and public policy recommendations, P-utility is assumed. (See also Hunt and Vasquez-Parraga 1993, p. 79-80.)

TABLE 1
Foundations of the Neoclassical and Comparative Advantage Theories of Competition

	Neoclassical Theory	Comparative Advantage Theory	
1. Demand	Homogeneous within industries	Heterogeneous within industries	
2. Consumer information	Perfect and costless	Imperfect and costly	
3. Human motivation	Self-interest maximization	Constrained self-interest	
4. Firm's objective	Profit maximization	Superior financial performance	
5. Firm's information	Perfect and costless	Imperfect and costly	
6. Resources	Capital, labor, and land	Financial, physical, legal, human, organizational, informational, and relational	
7. Resource characteristics	Homogeneous, perfectly mobile	Heterogeneous, imperfectly mobile	
8. Role of management	Determine quantity and implement production function	Recognize, understand, create, select, implement, and modify strategies	
9. Role of environment	Totally determines conduct and performance	Influences conduct and performance	
10. Competition	Quantity adjustment	Comparative advantage	

conduct. In particular, all firms in an industry will inexorably produce at the output rate at which marginal cost equals marginal revenue (the product's market price). In the short run, in which such resources as plant and equipment are relatively fixed, each firm will incur profits or losses depending on whether price is greater than or less than the average total cost of producing the profit-maximizing quantity. However, in long-run equilibrium in a perfectly competitive market, all resources are variable and each firm produces the quantity at which market price equals long-run marginal cost, which itself equals the minimum long-run average cost. The position of long-run equilibrium is a "noprofit" situation—firms have neither a pure profit (or "rent") nor a pure loss, only an accounting profit equal to the rate of return obtainable in other perfectly competitive industries. Therefore, the firm's environment strictly determines its performance (i.e., its profits).

The welfare economics literature investigates the conditions prevailing at the position of long-run general equilibrium. If all industries in an economy are perfectly competitive and no further adjustments in quantity produced are made by any firm in any industry, then at this general equilibrium position every firm has the optimum sized plant and operates it at the point of minimum cost. Furthermore, every resource or "factor" employed is allocated to its most productive use and receives the value of its marginal product. Moreover, the distribution of products produced is (Pareto) optimal at general equilibrium because the price of each product (reflecting what consumers are willing to pay for an additional unit) and its marginal cost (the extra resource cost society must pay for an additional unit) will be exactly equal. Therefore, the adjective "perfect" is taken literally in neoclassical theory: perfect competition is perfect.

Explaining Abundance

Neoclassicists readily admit that such abundant economies as that of the United States are not characterized by perfect competition. However, they claim that the U.S. economy is close enough to perfect competition to benefit from its efficiency-producing characteristics (Shepherd 1982; Stigler 1949). Therefore, neoclassical theory could potentially explain abundance by focusing on the efficiency of perfect

competition.⁴ Whereas command economies misallocate resources because of the lack of "signals" from the market-place as to where planners should deploy resources, prices and profits in market-based economies serve as signals and motivators for efficient resource allocation. For example, because firms in a command economy are not profit maximizers, their survival does not depend on finding the most efficient scale of operation. As a second example, the absence of marketplace-determined prices would mean that such resources as aluminum and steel would likely not be allocated to their greatest value-producing uses. Consequently, overall efficiency suffers and output is lowered.

As for explaining the superior innovativeness of marketbased economies, though neoclassical economists no doubt have beliefs, their views are not derived from perfect competition theory. Indeed, long-run equilibrium, a cornerstone of neoclassical theory, is precisely the situation that would prevail after all innovation has ceased. That is, firms have maximally adjusted their product output, plant sizes, and consumption of various resources. These adjustments are the only kinds of innovativeness permitted by perfect competition theory; all other forms of innovation are exogenous variables in perfect competition. Indeed, under perfect competition, introducing an innovative feature to an industry's product can be considered a marketplace "imperfection" that would disturb the equilibrium and move the system away from an ideal state. In this vein, for example, neoclassical studies have considered the innovative features in yearly automobile model changes to have no benefits for con-

⁴We add the qualifier "potentially" because in fact the standard view of neoclassicists up until the collapse of the Eastern bloc was that neoclassical theory provided no grounds for preferring market-based over planned economies (Knight 1936; Lavoie 1985). For example, the neoclassicist Lekachman (1985, p. 396-97) concludes that socialist economists have "proved that a Central Planning Board could impose rules upon socialist managers which allocated resources and set prices as efficiently as a capitalist society of the purest stripe, and *much more efficiently* than the capitalist communities of experience" (italics added). Similarly, Balassa (1974, p. 17) concludes that "economic arguments are not sufficient to make a choice between economic systems." See Lavoie (1985) for a review of this issue.

sumers, only injurious "product differentiation" costs (Fisher, Griliches, and Kaysen 1962).

Similarly, perfect competition cannot explain why market-based economies have higher quality products than do command economies. The assumptions of homogeneous consumer demand and identical within-industry production functions mean that (1) all consumers must desire precisely the same quality level within each product class and (2) firm-specific competencies are disallowed. Therefore, there is no reason to believe that Eastern bloc firms in each industry could not (and would not) have implemented in an equally competent manner the same standard production functions to produce the same quality products as did their Western market-based counterparts. Unless consumers in Eastern bloc economies desired lower quality products (an assumption refuted by the premium prices commanded by Western goods in such economies) or the resource endowment (e.g., labor) was intrinsically inferior in command economies (also a tenuous assumption), perfect competition cannot explain the historical shoddiness of Eastern bloc

We should note also the implications of perfect competition for quality improvement. No firm in perfect competition would or could incur the extra expense of producing a product with a quality level higher than the standard product because the homogeneous demand assumption implies that it could not charge a higher price. Moreover, if a firm did produce a higher quality product and received a higher price for it, then this again could be interpreted as a market imperfection that moves the market away from the ideal state of equilibrium.

Theories of monopolistic and oligopolistic competition could potentially have served as the starting point for overcoming the explanatory deficiencies of perfect competition theory because they—as neoclassicists put it—"relax" some of its foundational premises. In actuality, however, extant versions of these theories are not presented in neoclassical theory as having any beneficial consequences for society. Rather, they are discussed as undesirable departures from the preferred form of competition (note the pejorative tone to the labels "monopolistic" and "oligopolistic").

Consider, for example, Chamberlin's theory of monopolistic competition. He (1933/1962, p. 214) realized that the "explicit recognition that product is differentiated ... makes it clear that pure competition may no longer be regarded as in any sense 'ideal' for purposes of welfare economics." However, as a neoclassicist, he was methodologically wedded to finding equilibrium solutions to his theory. His equilibrium analyses conclude that product differentiation (e.g., some firms producing higher quality products or products with innovative features) always results in (1) product prices higher than perfect competition's (p. 67) and (2) output rates that are not at the lowest point on firms' long-run average cost curves (p. 77). Therefore, the theoretical import of Chamberlin's work for neoclassicists is not the deficiencies of perfect competition (i.e., his conclusion that pure competition is not "in any sense ideal"), but just how imperfect monopolistic competition is. Furthermore, when neoclassical works attempt to explore empirically the effects of deviations from perfect competition, they focus on estimating the "social costs" resulting from misallocations of resources (e.g., Cowling and Mueller 1978; Harberger 1954; Siegfried and Tieman 1974).⁵ Tellingly for our purposes, no potential social benefits are estimated in such studies, such as those that might be related to innovativeness or quality. Indeed, why should they? How could departures from perfection possibly have beneficial consequences?

Explaining Firm Diversity

Explaining the diverse assortment of firms in market-based economies poses even more problems for neoclassical theory. Perfect competition implies numerous small firms in every industry, with each producing a single product in the quantity dictated by its most efficient plant size. But many industries in market economies are characterized by a few firms of very large size that produce numerous products. Because perfect competition is perfect, such large corporations must necessarily be inefficient and represent "market failures" brought about through collusive behaviors or the existence (or erection) of "barriers to entry." Similarly, a firm with profits higher than the industry average is prima facie evidence of market imperfections and the existence of "market power." Thus, perfect competition provides the foundations for suspecting that such large and profitable firms as IBM in the 1960s, 1970s, and 1980s resulted from impermissible imperfections (Taylor 1982). Likewise, the continuing financial success of Microsoft in the 1990s is, again, an imperfection that should be eliminated as a matter of public policy (Business Week 1991, 1994a, b).

Two schools of economists have attempted to explain the diversity of firms without resorting to such hypotheses as "collusion" or "barriers to entry." First, Chicago-school economists modify the assumption of identical, industrywide production functions by acknowledging firm-specific competency differences (Demsetz 1975; Stigler 1951, 1964). For them, because "individuals are not all alike, ... the teams that make up business firms are not alike, and the effectiveness of firms differs" (McGee 1975 p. 101). Therefore, large firms may exist because of differences in production efficiency rather than collusion. "Bigness" for the Chicago school is not necessarily "badness." Nonetheless, Chicago economists still adhere to the neoclassical belief that superior earnings based on efficiency differences will be competed away by imitators in the long run and equilibrium restored. Therefore, sustained superior performance remains suspect (Demsetz 1973; Stigler 1966). Furthermore, Chicago economists address only efficiency differentials, not the possibility that superior earnings would result from either more innovative or higher quality products, that is, effectiveness differentials (Conner 1991).

Transaction cost economics also criticizes the neoclassical view. Coase (1937) pointed out over half a century ago that firms can avoid both search and contract-negotiation costs by producing some of their own production inputs. Therefore, he maintained, each firm expands its operations until the marginal cost of producing an input in house equals

⁵These social cost estimates commonly range from .1% to 13% of GDP.

the market price of that input. Indeed, his extension of perfect competition explains not only the existence of large firms on the basis of minimizing the costs associated with market exchange, but the existence of small firms as well. That is, individuals band together under the direction of an entrepreneur to purchase inputs and jointly produce an output because, compared with each individual acting alone, "certain marketing costs are saved" (Coase 1937/1952, p. 338).

Extending Coase's ideas, Williamson (1981, p. 1537) believes that "the modern corporation is mainly to be understood as the product of a series of organizational innovations that have had the purpose and effect of economizing on transaction costs," where such costs include all the "negotiation, monitoring, and enforcement costs necessary to assure that contracted goods and services between and within firms are forthcoming" (Alston and Gillespie 1989, p. 193). Williamson's work (1975, 1981, 1983, 1985, 1989) identifies circumstances in which a firm's avoidance of marketplace transaction costs are critical. If all human behavior is unrestrained self-interest maximization and all firms maximize profits, then all firms will seek profits through opportunism, that is, "self-interest seeking with guile" (1975, p. 6). Indeed, he maintains, without the assumption of opportunism, "the study of economic organization is pointless" (1981, p. 1545).6 Because opportunism is the "deceit-oriented violation of implicit or explicit promises about one's appropriate or required role behavior" (John 1984, p. 279), it will occur whenever producing a product requires a "transaction-specific asset," that is, an asset whose value depends significantly on its being employed in conjunction with another specific asset. According to transaction cost economics, therefore, large, vertically integrated firms exist because of the fear of marketplace opportunism (Conner 1991).

A Summary Evaluation

How well does neoclassical theory explain either the abundance of or the diversity in market economies? As we have seen, though neoclassical theory can potentially contribute to explaining the greater wealth-producing potential of market-based economies on efficiency grounds, it cannot explain their greater innovativeness or their goods and services' superior quality. As to the diversity of firms in market economies, this diversity is directly contrary to perfect competition theory.

With respect to the Chicago school approach, though it allows some human agency in the production function, its retention of other neoclassical assumptions limits the school's explanatory power. The situation with respect to transaction cost economics is more complex. Williamson (1981) identifies as foundational the behavioral assumptions of opportunism and bounded rationality (managers are in-

tendedly rational, but only limitedly so). He also accepts the neoclassical maximizing tradition: "Neoclassical economics maintains a maximizing orientation. This is unobjectionable, if all the relevant costs [i.e., the transaction costs] are included" (1985, p. 45). However, if all firms in an industry engage in opportunism, then the maximizing tradition would imply that all firms in an industry would ultimately wind up at precisely the same size, scope, and profitability—the one that minimizes total costs, including each firm's identical costs of opportunism. Therefore, transaction cost economics can contribute to explaining firm diversity only by diverging from such neoclassical assumptions as homogenous demand. What is needed to explain firm diversity is a new theory of competition, one that reexamines all the foundations of perfect competition. To this task we now turn.

The Comparative Advantage Theory of Competition

In Table 1, we display the foundational premises of the proposed theory.⁸ Both the content and epistemology of each premise differ from its perfect competition counterpart. Specifically, because we adopt the epistemology of scientific realism (Hunt 1991), each premise is offered as a proposition that can and should be subjected to empirical testing. Thus, unlike the epistemology of perfect competition, if any foundational premise is found to be false, then it should be replaced with a premise that better describes the real world of competition in market-based economies.

First, rejecting the neoclassical assumption of the gray sameness of human consumption preferences within generic product classes, we view industry demand as significantly heterogeneous and dynamic (Alderson 1957; Dickson 1992). That is, consumers' tastes and preferences within a generic product class, for example, footwear, not only differ greatly as to desired product features and characteristics, but they are always changing. Second, consumers have imperfect information concerning products that might match their

⁷Williamson's (1981, p. 1551) profit maximizing equation appears, among other things, to deny the neoclassical assumption of homogeneity of demand. Nonetheless, Williamson (1975, p. xi) views transaction cost theory as a "complement" to rather than being "in essential conflict with received microtheory."

8The use of the label "comparative advantage" is drawn in part from its use in international trade. There, classical Ricardian analysis provides that international trade is beneficial for all if each country specializes in those products for which its "factors" of production (which are heterogeneous and immobile across countries) make it, compared with other countries, more efficient. It need not have an absolute efficiency advantage in producing any product over all countries; it need only be relatively more efficient in producing some products than others. Similarly, our analysis assumes significant resource heterogeneity and immobility across firms in an industry. A firm, therefore, gains comparative advantage over other firms by making the best use of its heterogeneous resources. Note, however, that the resources assumed here are much more sophisticated than the traditional land, labor, and capital of international trade economics. Furthermore, such resources are not considered to be "natural" endowments (cf. Jones and Kenen 1984). Rather, some of the most important resources are those intangible ones that collectively constitute competencies of the firm.

⁶Although Williamson acknowledges that not all economic agents behave opportunistically, he argues for assuming universal opportunism because it is "ubiquitous" (1981, p. 1550) and opportunistic "types cannot be distinguished ex ante from sincere types" (1975, p. 27) or, at the very least, "it is very costly to distinguish opportunistic from nonopportunistic types ex ante" (1981, p. 1545; italics added).

tastes and preferences, and obtaining such information is often costly in terms of both time and money. Note that heterogeneity implies that few, if any, industry markets exist; there are only market segments within industries. For example, there is no "market for shoes," or even separate markets for women's and men's shoes. Even though all consumers require footwear and one can readily identify a group of firms that manufacture shoes, the group of firms that constitutes the shoe industry does not collectively face a single, downward sloping demand curve-such an industry demand curve would imply homogenous tastes and preferences. Indeed, to the extent that demand curves exist at all, they exist at a level of (dis)aggregation that is too fine to be an industry. For example, even if there were a men's walking shoe market, one certainly would not speak of the men's walking shoe industry.

Third, in their roles as both consumers of products and managers of firms, humans are motivated by constrained self-interest seeking. This premise draws on Etzioni's (1988) argument that people have two irreducible sources of valuation: pleasure (or, in Etzioni's notation, "P-utility") and morality. Because people do pursue pleasure and avoid pain, P-utility explains much behavior. However, both consumers and managers are constrained in their self-interest seeking by considerations of what is right, proper, ethical, moral, or appropriate. In ethical theory terms, deontological considerations constrain teleological considerations (Hunt and Vasquez-Parraga 1993). This premise implies that opportunism is not assumed to prevail in all circumstances. We reject transaction cost theory's "guilt by axiom" (Donaldson 1990, p. 373). The extent to which people behave opportunistically in various contexts is a research question to be explored and explained—not presumed.

Fourth and fifth, the firm's primary objective is superior financial performance, which, consistent with Austrian economics (Jacobson 1992), it pursues under conditions of imperfect (and often costly to obtain) information about customers and competitors. Our view parallels Porter (1991, p. 96), who identifies firm success as "superior and sustainable performance ... relative to the world's best rivals." There are, no doubt, other objectives—such as contributing to social causes or, as Porter (1991, p. 96) puts it, individuals "enjoying slack"—but we maintain that such secondary objectives are enabled by the accomplishment of superior financial performance. "Superior" implies that firms seek a level of financial performance that exceeds that of its referents, often its closest competitors. Why "superior" instead of maximum financial performance? Because firms do not maximize profits both because of the well-documented fact that they lack the information to do so (i.e., they operate under bounded rationality [Simon 1979]), and because morality considerations at times constrain them (or some of them) from doing so. In short, superior financial performance is constrained by managers' views of morality. For example, many managers resist cheating or opportunistically exploiting their customers and suppliers not only because of the P-utility fear of "getting caught," but also because they believe such cheating and exploitation to be deontologically wrong.

Financial performance is indicated by such measures as profits and return on investment, with the relative importance of specific financial indicators assumed to vary somewhat from firm to firm, industry to industry, and country to country. For example, in Germany and Switzerland, where banks and other major shareholders rarely trade their shares, long-term capital appreciation is valued more highly than it is in the United States (Porter 1990). Rewards flow to firms (and then to their owners, managers, and employees) that produce superior financial results. Rewards include not only stock dividends, capital appreciation, salaries, wages, and bonuses, but also promotions, expanded career opportunities, prestige, and feelings of accomplishment.

Note that we do not characterize the firm's objective as "abnormal" profits or "rents" that result from market "imperfections," as does neoclassical theory. We urge all marketers to eschew such neoclassical expressions. Although one can compute such things as the average profits of a group of rivals for comparison purposes, the notion of "normal profits," that is, the average firm's profits in a purely competitive industry in long-run equilibrium, is an empirically meaningless, arguably pernicious abstraction. Longrun equilibrium is neither something that exists nor something that groups of rivals are "tending toward" nor something that, if achieved, would be desirable (let alone perfect). Rather, markets are never in equilibrium (Dickson 1992; Jacobson 1992) and activities that produce turmoil in markets have positive benefits because they are the engine of economic growth: "Capitalism, then, is by nature a form or method of economic change and not only never is but never can be stationary" (Schumpeter 1950, p. 82).

Sixth, resources are the tangible and intangible entities available to the firm that enable it to produce efficiently and/or effectively a market offering that has value for some market segment or segments (cf. Barney 1991; Wernerfelt 1984).9 For example, a firm's core competencies (Prahalad and Hamel 1990) are intangible, higher order resources that enable it to perform—better perhaps than its competitors the activities in Porter's (1985) "value chain." 10 Drawing on Barney (1991), Day and Wensley (1988), and Hofer and Schendel (1978), we propose that the multitude of potential resources can be most usefully categorized as financial (e.g., cash reserves, access to financial markets), physical (e.g., plant, equipment), legal (e.g., trademarks, licenses), human (e.g., the skills and knowledge of individual employees), organizational (e.g., competencies, controls, policies, culture), informational (e.g., knowledge resulting from consumer and

⁹As used here, "value" refers to the sum total of all benefits that consumers perceive they will receive if they accept the market offering. It does not imply a ratio of benefits received to price paid, as in the trade's use of "value pricing."

¹⁰Porter (1991, p. 108), however, is critical of extant versions of resource-based theory: "At worst, the resource-based view is circular." For him, discussions of core competencies are "inward looking and most troubling" and "stress on resources must complement, not substitute for, stress on marketplace positions." For him, selecting the right industry and generic strategy within an industry is key because industry is the "most significant predictor of firm performance" (Montgomery and Porter 1991, p. xiv).

competitor intelligence), and relational (e.g., relationships with suppliers and customers).

Seventh, resources are both significantly heterogeneous across firms and imperfectly mobile. Resource heterogeneity means that every firm has an assortment of resources that is at least in some ways unique. Immobility implies that firm resources, to varying degrees, are not commonly, easily, or readily bought and sold in the marketplace (the neoclassical "factor" markets). Because of resource immobility, resource heterogeneity can persist through time despite attempts by firms to acquire the same resources of particularly successful competitors (Collis 1991; Dierickx and Cool 1989; Peteraf 1993).

When a firm has a resource (or, more often, a specific assortment of resources) that is rare among competitors, it has the potential for producing a comparative advantage for that firm (Barney 1991). A comparative advantage in resources exists when a firm's resource assortment (e.g., its competencies) enables it to produce a market offering that, relative to extant offerings by competitors, (1) is perceived by some market segments to have superior value and/or (2) can be produced at lower costs. As Conner (1991, p. 132) notes, "distinctiveness in the product offering or low costs are tied directly to the distinctiveness in the inputs—resources—used to produce the product, much as the quality and cost of boeuf bourguignonne depend on the particular ingredients used and the way in which they are mixed." A comparative advantage in resources, then, can translate into a position of competitive advantage in the marketplace and superior financial performance—but not necessarily.

Figure 1 shows nine possible competitive positions for the various combinations of a firm's relative (to competitors) resource-produced value for some segments and relative resource costs for producing such value.¹¹ Ideally, of course, a firm would prefer the competitive position of cell 3, where its comparative advantage in resources produces superior value at lower cost. The Japanese automobile companies, for example, had this position throughout the 1970s and into the 1980s in the United States because their more efficient and effective manufacturing processes produced higher quality products at lower costs. Positions identified as cells 2 and 6 also bring competitive advantage and superior financial returns, whereas cell 5, the parity position, produces average returns. But firms occupying positions 1 and 9, though having a comparative advantage in either value or costs, may or may not have superior returns.

In position 1 the advantage of lower relative resource costs is associated with (or results from) a sacrifice in relative value for consumers. Consequently, the offerings of firms in such a position will generally have lower prices than those,

FIGURE 1 Competitive Position Matrixa

	Relative Resource-Produced Value			
	Lower	Parity	Superior	
Lower	• ?	Competitive Advantage	3 Competitive Advantage	
Relative Resource Parity Costs	Competitive Disadvantage	Parity Position	Competitive Advantage	
Higher	7 Competitive Disadvantage	8 Competitive Disadvantage	?	

^aRead: The marketplace position of competitive advantage identified as cell 3 results from the firm, relative to its competitors, being able to produce an offering for some market segment or segments that is (1) perceived to be of superior value and is (2) produced at lower costs.

say, in cell 2. Depending on the extent to which the price reductions are less than, equal to, or greater than their relative advantage in resource costs, cell 1 firms are at positions of competitive advantage, parity, or competitive disadvantage, respectively. For example, though American car companies in the 1970s and 1980s occupied position 7, in the 1990s they have a relative cost advantage over imported Japanese makes (Lavin 1994). Nonetheless, because many consumers still perceive American cars to be of somewhat lower quality, they occupy position 1 and competitive advantage is not assured. Position 9, on the other hand, is equally indeterminate and describes the German car companies in the 1990s. Although the resources of the German auto manufacturers continue to produce products of superior perceived value, they do so at much higher resource costs (Keller 1993). Unlike the 1970s and 1980s, when the German car companies occupied position 6, competitive advantage is now no longer assured.

Cell 5, the parity position, is the marketplace situation addressed in part by perfect competition theory. If no firm can produce superior value for some particular market segments and no firm has a cost advantage (which implies that all innovation has stopped), then an equilibrating model of competition might apply. We should note, however, that this, the degenerative case, is unlikely to persist in many markets through time.

Eighth, the role of management in the firm is to recognize and understand current strategies, create new strategies, select preferred strategies, implement or manage those selected, and modify them through time.¹² Strategies that yield

¹¹Note that we use "relative resource-produced value" and not "relative differentiation advantage." We do so because (1) to be simply different from one's competitors does not yield a position of competitive advantages, (2) differentiation is an outcome of producing superior value (not the same thing as producing superior value), (3) as marketers we should (of all groups) be using terms that focus on customers, and (4) the word "differentiation" has the connotation—pernicious, in our judgment—from its use in neoclassical economics that the purpose of offering superior value to one's customers is to "escape the rigors" of perfect competition.

¹²The rationale for including the recognition and understanding of strategies is that sometimes a firm's strategies emerge or are implicit (Mintzberg 1987). In such cases, it is important for firms to recognize and understand their emergent or implicit strategies.

a position of competitive advantage and superior financial performance will do so because they rely on those resources in which the firm has a comparative advantage over its rivals. Sometimes it is a single resource, such as a trademark; more often it is a combination of interconnected resources, that is, a resource assortment. Sustained, superior financial performance occurs only when a firm's comparative advantage in resources continues to yield a position of competitive advantage despite the actions of competitors.

Because all firms seek superior financial performance, competitors of a firm having a comparative advantage will attempt to neutralize their rival's advantage by obtaining the same value-producing resource. If the resource is mobile, that is, readily available for sale in the marketplace, then it will be acquired by competitors, and the comparative advantage is neutralized quickly and effectively. If it is immobile, then competitors innovate. According to Barney (1991), the innovating behavior can be either imitating the resource or finding a substitute resource that is strategically equivalent. A third alternative, which we propose is more important than either imitation or substitution, is major innovation, that is, finding a new resource that produces value that is superior to-not strategically equivalent to—the advantaged competitor. Why more important? Because, whereas neutralizing a competitor's advantage through imitation or substitution produces only parity returns (cell 5 in Figure 1), identifying and obtaining a new resource can result in a position of competitive advantage and superior returns (cells 2, 3, or 6).

Ninth, whereas neoclassical theory—including traditional industrial organization economics views (Bain 1956)—assumes that the firm's environment, particularly the structure of its industry, strictly determines its conduct (or strategy) and performance (profits), our theory maintains that environmental factors only influence conduct and performance. Relative resource heterogeneity and immobility imply that strategic choices must be made and that these choices influence performance. All firms in an industry will not adopt the same strategy—nor should they. Different resource assortments suggest targeting different market segments and/or competing against different competitors.

Competition, then, consists of the constant struggle among firms for a comparative advantage in resources that will yield a marketplace position of competitive advantage and, thereby, superior financial performance. Once a firm's comparative advantage in resources enables it to achieve superior performance through a position of competitive advantage in some market segment or segments, competitors attempt to neutralize and/or leapfrog the advantaged firm through acquisition, imitation, substitution, or major innovation. The comparative advantage theory of competition is, therefore, inherently dynamic. Disequilibrium, not equilibrium, is the norm, in the sense of a normal state of affairs. It is also the norm in the sense of a preferred state of affairs, as we now show.

Explaining Abundance

Instead of the "assume we stop the world and see how everything would be allocated" procedure of neoclassical, long-run equilibrium, the comparative advantage theory of competition, displayed in Figure 2, explains the greater abundance in market-based economies on the basis that rewards, through time, flow to the efficient and the effective. First, the comparative advantage theory expands the kinds of resources (from land, labor, and capital) to include such intangible resources as organizational culture, knowledge, and competencies. These higher order, complex resources are most important for modern companies and their respective economies, as attested to by such modern-day successes as Japan, Singapore, and Hong Kong, which have virtually no natural resources.

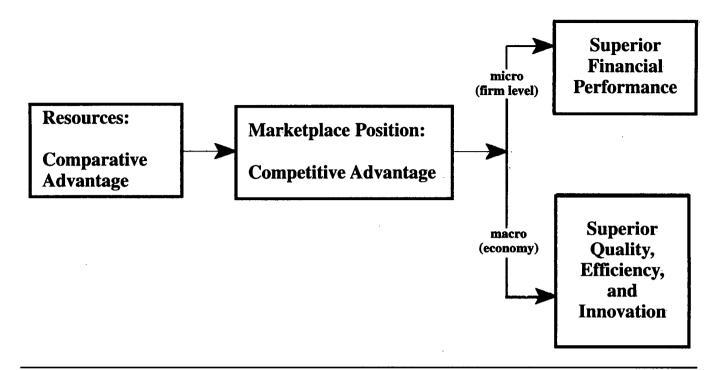
Second, the theory identifies the search for a comparative advantage in resources as the powerful motivation for not only the efficient use of existing resources, but also for the creation of new ones. Thus, compared with command economies, market-based economies are more effective in creating new resources, such as distinctive organizational competencies, that can then be used efficiently. After all, determining such things as optimum plant sizes, a major part of neoclassical efficiency, is a narrow technical problem that could be solved to a high degree of precision by central planners. 13 But both central planners and individual plant managers lack the motivation for creating new resources and, hence, new efficiencies. Therefore, the comparative advantage theory explains why market-based economies continuously create resources that can produce ever more efficient production processes, which in turn produce abundance. Thus, our theory explains not only why nations that are poor in natural resources can be wealthy, but also why marketbased economies keep getting more efficient and more abundant.

Comparative advantage theory straightforwardly explains why market-based economies are more innovative. Whereas in command economies there are no mechanisms for automatically rewarding innovation, rewards in market-based economies flow to firms and individuals that develop innovative processes and products. First, breakthrough innovations or "Schumpeterian shocks" (Barney 1991; Rumelt and Wensley 1981) provide the innovator a significant comparative advantage that can often be sustained through time. For example, Xerox's plain paper copier in the 1960s provided an advantage that endured for about a decade (Ghemawat 1986). Second, the many small innovations in processes and products that also characterize market-based economies are predicted by comparative advantage theory. These small innovations, through time, have a cumulative effect on resource advantage and, hence, on efficiency and effectiveness. Indeed, continually improving processes and products is foundational for quality assurance programs such as those advocated by Deming (Gitlow and Gitlow 1987).

As to explaining quality, rather than being exogenous or a market imperfection, superior quality is a natural outcome of a system characterized by the search for comparative advantage—rewards accrue to firms producing high-quality products. In contrast, firms in planned economies have no natural mechanisms for rewarding higher quality goods and services. Consider again the case of the Japanese car makers in the

¹³This is one of the arguments by advocates of planned economies that was so effective in convincing neoclassicists of the superior benefits of socialism. (See references in footnote 4.)

FIGURE 2
The Comparative Advantage Theory of Competition



1970s and 1980s and their adoption of Deming's views on quality. Such production competencies as just-in-time purchasing constituted a resource that produced not just lower costs but more durable, more reliable, higher quality products. Their position of competitive advantage yielded superior returns.

Explaining Firm Diversity

The comparative advantage theory of competition explains the diversity in size, scope, and profitability of firms in each industry on several grounds. First, because universal opportunism is not assumed, different firm sizes and scopes can be explained on the basis that some firms develop relationships with suppliers and/or customers that they can trust not to exploit them (Morgan and Hunt 1994), while others integrate backwards or forwards because they can find no such trustworthy partners.¹⁴ Second, a firm may decide to conduct an activity in house, rather than contract it out, because it constitutes, or is part of an assortment of resources that constitutes, a competency. Simply put, firms do in house those activities they believe—sometimes wrongly—they have the capability of doing better. For example, whereas one auto manufacturer may perceive itself to have a distinct competency in producing engine blocks and thus be reluctant to purchase them from suppliers, another may outsource blocks because it lacks this competency resource. Third, each firm in an industry is a unique entity in time and space as a result of its history. Because of this unique history in obtaining and deploying resources; firms will differ from their competitors (Barney 1991; Dierickx and Cool 1989). For example, a firm's acquisition of a piece of property in its distant past may be now providing it a unique source of comparative advantage and influencing its size, scope, or profitability.

Fourth, different assortments of resources may be equally efficient or effective in producing the same value for some market segments. These different assortments, therefore, lead to firms of varying size and scope, where "scope" refers to product-market diversity (Chandler 1990). Fifth, because of heterogeneous demand, servicing different market segments will likely lead to firms in the same industry with different sizes and scopes, for example, "niche" marketers. Sixth, some individual resources produce comparative advantage for only certain firms, even though their competitors service the same market segments. This is because, as discussed, it often is an assortment of interconnected resources that produce such advantages as distinct competencies. Seventh, if one or more firms servicing some market segments have a comparative advantage in resources that competitors cannot imitate, find substitutes for, or leapfrog with an entirely new resource, then these circumstances will produce diverse firms within the same industry. Eighth, the mixture of firms in an industry changes because of both changes in consumer preferences and the continuing search by all firms for a comparative advantage in resources that will yield a position of competitive advantage in the marketplace. Sometimes these efforts at innovation succeed; sometimes they do not.

Consider the substantial differences in profitability among firms. Are these differences primarily, or exclusively, attributable to differences in industry structure, as the determinism of

¹⁴Note the troubling implications for trustworthiness of the studies by Marwell and Ames (1981) showing a positive correlation between formal training in economics and prevalence of "free-riding."

neoclassical theory implies? Or do environmental factors just influence profitability, as maintained by our theory and the strategic choice school of researchers? Using 1975 Federal Trade Commission (FTC) line of business data, Schmalensee (1985) investigated the relative importance of firm versus industry effects on firm profitability (firm return on assets in each industry). Whereas industry effects accounted for 19.5% of the variance in firm profitability, firm effects were not significant, leading him to conclude that corporate strategy effects "simply do not exist" (p. 346)15 Since then, several studies have questioned Schmalensee's finding that corporate strategy has no effect on firm profitability (Cubbin and Geroski 1987; Hansen and Wernerfelt 1989). For example, Rumelt (1991) extended the Schmalensee FTC study by adding data for 1974, 1976, and 1977. He found that industry effects explained only 8% of the variance in rate of return, whereas 46% of the variance was explained by business unit effects. Supporting Rumelt, Roquebert, Phillips, and Westfall (1994) found industry versus total firm (corporate plus business unit) effects to be 10% and 57%, respectively. Roquebert, Phillips, and Westfall's findings are particularly noteworthy because their sample was much larger (over 6800 corporations), had a broader base (over 940 Standard Industrial Classification four-digit categories), and included both small and large corporations. The accumulated evidence, therefore, strongly supports our theory's position that environmental factors merely influence, not totally determine, firm performance. In short, human agency matters. Strategic choices matter.

In conclusion, the comparative advantage theory of competition performs much better than neoclassical theory in explaining why market-based economies are more bountiful and innovative and have higher quality goods and services than do command economies. It also explains better why market-based economies exhibit a rich diversity of firms, even within the same industry.

Marketing and Comparative Advantage

Williamson (1981) laments the "inhospitality tradition" in economics that views with suspicion all organizational forms that depart from perfect competition. Equally lamentable is the neoclassical view that marketing is unnecessary or a presumptively nefarious market imperfection creator, or that it is to "escape" the rigors of perfect competition that firms engage in most marketing activities. As to advertising, this inhospitality tradition has resulted in the question "Is advertising anti-competitive?" being a cottage industry for neoclassicists. Much worse, it led the neoclassical historian Kuhn (1970, p. 453) to see no difference between market economies permitting advertising and command economies imposing "a common scale of values ... by force and propaganda" (italics added). As to product innovations, it led neoclassicists to argue that the introduction of new breakfast cereals by cereal manufacturers is inherently anti-competitive (Cohen and Gordon 1981). As to trademarks, it led Chamberlin (1962, p.

270ff) to argue against firms having exclusive use of their brand names on the grounds that "the protection of trademarks ... is the protection of monopoly." His "trademarks are monopolies" view led to the (unsuccessful) argument by FTC attorneys that Borden's equity in its ReaLemon trademark was anti-competitive (Wall Street Journal 1978).

In contrast, recall that competition in the comparative advantage theory is the constant struggle for a comparative advantage in resources that will yield a marketplace position of competitive advantage and, thereby, superior financial performance. All activities that contribute to positions of competitive advantage or the absence of which would contribute to positions of competitive disadvantage are presumptively procompetitive—marketing activities are no exception to this rule. "Presumptively" pro-competitive does not imply that all the ways in which marketing activities are carried out are efficient, effective, or ethical or even ought to be legal. For example, it does not mean that all forms of advertising should necessarily be allowed or encouraged by society. Rather, it means that all forms of marketing activities are specifically assumed to promote competition unless (1) a form is demonstrated to be anti-competitive on the basis of evidence, where (2) such evidence does not include the fact that the activity is inconsistent with or moves away from perfect competition.

What we are arguing is analogous to the difference between a system of justice in which the defendant is presumed guilty until proved innocent versus one in which one is presumed innocent until proved guilty. Treatises on such topics as "Is advertising pro-competitive?" have historically started from the premise that "pro-competitive" meant "consistent with" or "leads in the direction of" perfect competition. Not only is perfect competition imperfect, but such a procedure—being "guilt by axiom" (Donaldson 1990)—improperly places the burden of proof on those engaging in the marketing activity.

If marketing is presumptively pro-competitive, what resources are distinctively marketing that might yield a comparative advantage? The marketing function within organizations has been, at least since the 1960s, associated with the marketing concept and the "four P's." Guided by the marketing concept, marketing has focused on decisions related to analyzing and selecting target markets, product and brand development, promotion, and channels of distribution. The activities related to each of these decision areas, it can be argued, are distinctly marketing, even though the degree of control marketing has over each decision area varies across firms and industries. Therefore, competencies with respect to these areas constitute resources when they contribute to the firm's ability to produce efficiently and/or effectively market offerings that have value. Similarly, legal rights (e.g., trademarks), physical assets (e.g., corporate-owned retail outlets), and relational assets (e.g., brand equity) can be resources. Given the recent prominence of market orientation and the controversy it has raised, we focus on it as a potential resource. In doing so, we further explicate the comparative advantage theory, show how it can be deployed, and highlight the role of resource-advantage in our theory.

¹⁵Note that, with 80% of the variance attributed to error and only 20% attributed to industry effects, even Schmalensee's results do not imply that industry structure determines firm profitability.

The Nature of Market Orientation

The idea of market orientation traces to the marketing concept (Kohli and Jaworski 1990). Considered a marketing cornerstone since its articulation and development in the 1950s and 1960s, the marketing concept maintains that (1) all areas of the firm should be customer oriented, (2) all marketing activities should be integrated, and (3) profits, not just sales, should be the objective. As conventionally interpreted, the concept's customer-orientation component, that is, knowing one's customers and developing products to satisfy their needs, wants, and desires, has been considered paramount. Historically contrasted with the production and sales orientations, the marketing concept is considered to be a philosophy of doing business that should be a major part of a successful firm's culture (Baker, Black, and Hart 1994; Houston 1986; Wong and Saunders 1993). "In other words, the marketing concept defines a distinct organizational culture ... that put[s] the customer in the center of the firm's thinking about strategy and operations" (Deshpandé and Webster 1989, p. 3). Indeed, "marketing should be viewed ... as a guiding philosophy for the whole organization [because] our evidence points to improved performances among companies that adopt this wider approach" (Hooley, Lynch, and Shepherd 1990, p. 21-22). Therefore, though the marketing concept guides policies and behaviors, its cultural status makes it more permanent, more foundational, than, say, a strategy. Corporate cultures can be influenced, modified, formed, or shaped, but, unlike strategies, they are not selected.

Specifically, then, how does a market orientation relate to the marketing concept? In contrast with the marketing concept's single focus on customers, a market orientation involves a dual focus on both customers and competitors (Day and Nedungadi 1994; Jaworski and Kohli 1993; Kohli and Jaworski 1990; Narver and Slater 1990; Slater and Narver 1994; Webster 1994). Therefore, we know what a market orientation is not. It is not the same thing as, nor a different form of, nor the implementation of, the marketing concept. Rather, it would seem that a market orientation should be conceptualized as supplementary to the marketing concept. Specifically, keeping in mind the role of management in the theory of comparative advantage (see Table 1), we propose that a market orientation is (1) the systematic gathering of information on customers and competitors, both present and potential, (2) the systematic analysis of the information for the purpose of developing market knowledge, and (3) the systematic use of such knowledge to guide strategy recognition, understanding, creation, selection, implementation, and modification. We include potential customers to guard against the hazards of firms being "customer-led" (Hamel and Prahalad 1994), that is, focusing only on the articulated needs, wants, and desires of present customers. We include potential competitors to guard against the hazards of changing technology resulting in new competitors. We do not include interfunctional coordination (Narver and Slater 1990) because, though it is a factor that can contribute to implementing successfully a market orientation, such implementation factors should not appear in a concept's definition.

As to its ontological status, a market orientation should be considered a kind of organizing framework that, if adopted and implemented, could through time become culturally embedded in an organization. As such it would be intermediate between a business strategy (e.g., cost leadership) that can be selected and the preeminently cultural business philosophy identified as the marketing concept. Just as a market orientation would guide strategy selection, the marketing concept would inform the use of the components of market orientation by reminding managers to keep customers, as Webster (1994) puts it, "on a pedestal," because they always have the "final say."

Market Orientation as a Resource

Is a market orientation a resource? Marketing's strategy literature has historically categorized sources of advantage into skills and resources, in which the former are "the distinctive capabilities of personnel" and the latter are the "more tangible requirements for advantage" (Day and Wensley 1988, p. 2-3). Although its successful implementation requires skills, a market orientation is itself not a skill, nor is it more tangible than a skill. Thus, it seems not to fit this schema. Our theory views resources as the tangible and intangible entities that enable a firm to produce efficiently and/or effectively a market offering that has value for some market segment or segments. In this view, a market orientation would be an intangible entity that would be a resource if it provided information that enabled a firm to produce, for example, an offering well tailored to a market segment's specific tastes and preferences. (Note that Table 1 includes information as a basic kind of resource.)

Could a market orientation be a resource leading to comparative advantage? A market orientation stresses the importance of using information about both customers and competitors in the formulation of strategy. Therefore, the knowledge about one's competitors-their products, prices, and strategies, for example-gleaned from implementing a market orientation could potentially enable a firm to produce a market offering for some market segments more efficiently or effectively than one's competitors (Glazer 1991). We say "potentially" because a market orientation can produce a comparative advantage only if it is rare among competitors (Barney 1991). If all competitors adopt a market orientation and implement it equally well, then a comparative advantage accrues to none. Like the ante in a poker game, a market orientation would be a necessary precondition for playing the game.

Is a market orientation rare? Two studies suggest "yes." First, Jaworski and Kohli (1993, p. 64) investigate the antecedents and consequences of market orientation and conclude, "the findings of the studies suggest that the market orientation of a business is an important determinant of its performance, regardless of the market turbulence, competitive intensity or the technological turbulence of the environment in which it operates." Second, Narver and Slater (1990, p. 32) investigate the effect of a market orientation on business profitability using a sample of 140 strategic business units of a large forest-products corporation and conclude, "for both the commodity and noncommodity businesses, market orientation is an important determinant of profitability." These studies suggest that a market orientation is a resource that is rare among competitors because, if it were not, it would not be ex-

pected to lead to a position of competitive advantage (cells 2, 3, or 6 in Figure 1) and hence superior performance.

Is a market orientation a resource potentially leading to a sustainable comparative advantage and hence a position of sustainable competitive advantage and, thereby, superior long-run financial performance? The life span of a particular comparative advantage in resources—its sustainability—is determined by factors both internal and external to the firm.

Internal Factors

A comparative advantage in resources can be dissipated, allowed to atrophy, or just plain squandered by several internal factors: (1) a failure to reinvest, (2) the presence of causal ambiguity, and (3) a failure to adapt. All resources require constant monitoring and maintenance expenditures (Dierickx and Cool 1989). For example, "a business with a reputation for superior quality could experience an erosion in quality as a source of SCA [sustainable competitive advantage] if it fails to continue investing in processes that contributed to the business's reputation for quality" (Bharadwaj, Varadarajan, and Fahy 1993). A firm may also allow a comparative advantage in resources to dissipate because the relationship between their competitive advantage in the marketplace and their comparative advantage in resources is causally ambiguous (Reed and DeFillippi 1990). In this respect, firms are like nations both may lack an accurate understanding of their sources of wealth and both may squander such resources (Hayek 1960). Finally, a firm may fail to modify, sell, relinquish, or abandon a resource or an assortment of resources in response to a changed environment. An asset that is a resource in one environment can become a nonresource in another if it no longer contributes toward the creation of value in the firm's market offerings. Even more seriously, something that was previously a resource can become what we label a "contra-resource" and actually inhibit the creation of value in the firm's market offerings. As a case in point, consider the permanent employment issue.

Because "viewing employment as permanent creates the best incentive both for the company and its employees to invest in upgrading skills," Porter (1990, p. 594) recommends that all companies "make the commitment to maintain permanent employment to the maximum extent possible." In contrast, the view here is that permanent employment, either as a formal policy or as an informal element of a firm's culture, is not necessarily a resource in all environments. Consider IBM, an example used by Porter (1990). It is true that IBM successfully resisted involuntary layoffs for over 70 years and that this fostered worker loyalty and a low personnel turnover rate. By the 1990s, however, according to Hays (1994), the permanent employment aspect of IBM's culture appears to have been transformed into a feeling by IBM employees that they were "entitled to their jobs," which then led to employee "lethargy." Thus, the resource of permanent employment became the contra-resource of job entitlement (Hays 1994, p. A5):

Through the mid-1980s Big Blue enjoyed 40 percent of the industry's world-wide sales and 70 percent of all profits. The no-layoffs vow backfired badly when trouble hit in the late 1980s. From 1986–1993, IBM took \$28 billion in

charges, half of it for voluntary buy outs and cut the payroll by 37 percent.

A policy of permanent employment may be a resource, nonresource, or contra-resource, depending on a firm's competitive position and its environment.

External Factors

A firm's comparative advantage in resources can be neutralized by the actions of consumers, government, or competitors. Changes in consumer tastes and preferences in a market segment can turn a resource into a nonresource or contra-resource. Thus, for example, a distribution system that emphasizes franchised dealers can shift from resource to nonresource if consumers decide that they desire to purchase the items in question from discount stores. In like manner, governmental actions can destroy the value-creating potential of a resource through laws and regulation. Changes in patent, trademark, franchising, and other laws can destroy a resource's comparative advantage.

Competitors' actions that can neutralize a resource's comparative advantage include attempting to purchase the same resource as an advantaged competitor, imitating the competitor's resource, searching for a strategically equivalent resource, or searching for a strategically superior resource, that is, a major innovation (Barney 1991; Dierickx and Cool 1989; Lippman and Rumelt 1982; Peteraf 1993; Reed and DeFillipi 1990; Wernerfelt 1984). The effectiveness of these actions and the time it takes for them to neutralize a specific competitor's resource advantage successfully depend on characteristics of the marketplace offering, the resources producing the offering, and the competitor's resources.

As to the marketplace offering, the key characteristic is ambiguity. Although competitors may know that consumers in the market segments strongly prefer their rival's offering, there may be great ambiguity as to precisely what attributes of the offering are making it perceived to be superior. Furthermore, there may be great ambiguity as to specifically which resources are being used to produce the highly valued attributes. These two sources of causal ambiguity (resource \rightarrow offering; offering \rightarrow consumer) can create great uncertainty and thus render ineffective attempts to neutralize a competitor's comparative advantage.

As to resources, the major characteristics affecting the life span of an advantage are mobility, complexity, interconnectedness, mass efficiencies, tacitness, and time compression diseconomies. The advantage brought by mobile resources, those that are commonly bought and sold in the marketplace (such as machinery), can be neutralized effectively and quickly. Intangible, higher order resources, such as an organizational competency in new product testing, cannot be neutralized as quickly. Often difficult to neutralize are complex resources, those involving combinations of many resources, and interconnected resources, those for which competitors may lack access to a critical component. Mass efficiencies spring from the fact that some resources require a "critical mass" before they can be deployed effectively. Tacit resources encompass skills that are noncodifiable and must be learned by doing and thus cannot be bought. Time compression diseconomies refers to the fact that some resources, such as a reputation for trustworthiness, by their very nature take time to acquire. All these factors make it more difficult for a competitor to acquire or imitate a competitor's advantage-producing resource, making such a resource, to varying degrees, sustainable.

In light of the preceding, is a market orientation a source of sustainable comparative advantage? Consider a hypothetical firm that is market oriented and enjoying a comparative advantage. (Its competitors, as Aaker [1988, p. 13] puts it, are "internally oriented.") Thus, this firm chooses its target markets more wisely than its competitors and its offerings are better tailored to its customers' preferences. Could its advantage be sustained? As to internal factors, though the firm might fail to reinvest in its information-gathering activities (allowing its advantage to dissipate), adapting to changing customer requirements and competitor actions is a specific component of the firm's orientation. Furthermore, because the firm knows its customers and its competitors, this would contribute greatly to knowing itself, thus attenuating any causal ambiguity as to why it is enjoying superior financial performance.

As to external factors, knowing its customers and competitors should allow the firm to respond to changes in consumer preferences and competitor strategies in an informed, perhaps even optimal, manner. Furthermore, just as many firms give "lip service" (Aaker 1988, p. 212) to being customer oriented, competitors may not recognize a genuinely market-oriented competitor when they encounter one. Moreover, a market orientation is intangible, cannot be purchased in the marketplace, is socially complex in its structure, has components that are highly interconnected, has mass efficiencies, and is probably increasingly effective the longer it has been in place. Finally, there is probably a significant tacit dimension to implementing a market orientation effectively. Employees learn how to be market oriented not solely from reading policy manuals or textbooks but from associating with other employees that are already market oriented. Consequently, there are good grounds for believing that a truly market-oriented firm can enjoy a sustainable comparative advantage that can lead to a position of sustainable competitive advantage and superior long-run financial performance.

Conclusion

The "strategy dialogue," having already produced a new theory of the firm, is evolving toward a new theory of competition. Our purpose has been to identify the foundations of this new theory and its implications for marketing. The set of ten foundational premises in Table 1 constitute, we propose, the grounds for the comparative advantage theory of competition. Although these premises, taken individually, have been discussed by others at numerous times in many places, this article is the first to place them into a cohesive theory. Contrasting the theory's premises with those of neoclassical perfect competition facilitates understanding the structure of this new theory. A theory of competition should be required to explain not only why economies premised on competing firms are superior to economies premised on cooperating firms in terms of the quantity, quality, and innovativeness of goods and services, but also the phenomenon of firm diversity in marketbased economies. Our analysis indicates that the comparative

advantage theory of competition explains these key macro and micro phenomena better than its perfect competition rival.

Because competition is the constant struggle among firms for a comparative advantage in resources that will yield a marketplace position of competitive advantage and, thereby, superior financial performance, marketing activities shift from being a presumptively nefarious market imperfection creator to being, like other firm activities, presumptively pro-competitive. As a consequence, some may view (and perhaps attack) the comparative advantage theory as self-serving for marketing. In response, self-servingness is a red herring. Though our theory does indeed serve, and serve well, the interests of marketing academe and practice, the self-servingness of our theory is irrelevant. The relevant questions are, "Is the theory true? Is the real world constructed as the theory suggests, or is it not?" (Hunt 1990, p.1). That our theory explains key macro and micro phenomena gives us good reason, according to scientific realism (Hunt 1990), to believe that something exists that is like the entities and structure postulated by the theory.

Much conceptual and empirical work must be done to test, explore, and further explicate the structure and implications of the theory. Are there additional foundational premises that should be included? If so, which ones, and why? What other resources are distinctively marketing that might provide a comparative advantage? For example, is relationship marketing such a resource and, if so, under what conditions? If perfect competition should not be the norm for guiding public policy, how can and should comparative advantage theory be employed? Can and should the theory be mathematized?

Finally, marketing should harbor no illusions, let alone delusions. We can and should work on developing the comparative advantage theory, use it as a foundation for research, promote it as superior to perfect competition, and-for our students—incorporate it in our texts. We also can expunge such neoclassical locutions as "economic rents," "abnormal profits," "market imperfections," and "assuming perfect competition" from our discipline's lexicon. However, as the epigraph reminds us, what we cannot do is have an impact on neoclassical economic theory. The edifice of general equilibrium theory, with its base of perfect competition theory, is elegant, mathematically formalized, and aesthetically pleasing.16 It is deeply embedded within a discipline that is large and influential, especially when compared with marketing. Neoclassical economics has enormous sunk costs in perfect competition. Indeed, all evidence of the theoretical, predictive, explanatory, and normative deficiencies of the set of beliefs that has perfect competition at its core has always been summarily dismissed. Perfect competition is unshakable, immutable, and impregnable. Nothing can be done.

Then again, Ptolemaic astronomy had all the preceding going for it plus the imprimatur of the Church. Hmm....

¹⁶Rosenberg (1992) argues that neoclassical economics has become neither an empirical science nor an appropriate normative ideal for public policy. Rather, he maintains that neoclassical economics has become a branch of applied mathematics.

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