

Competition in the third millennium Efficiency or effectiveness?

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Abstract

Neoclassical economic wisdom holds that competition is, exclusively, an efficiency-seeking enterprise. For neoclassical theory, therefore, competition in the third millennium will be, can only be, efficiency seeking. In contrast, conventional *business* wisdom is that competition in the third millennium will primarily be an effectiveness-seeking enterprise. This article uses resource-advantage (R-A) theory to explore whether efficiency or effectiveness — or both — will drive competition in the third millennium. © 2001 Elsevier Science Inc. All rights reserved.

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1. Introduction

What will drive competition in the third millennium? Neoclassical economic wisdom holds that competition is, exclusively, an efficiency-seeking enterprise. Competitors are profit-maximizers who produce homogeneous products by combining homogeneous resources under conditions of perfect information. With innovation exogenous, competition efficiently allocates resources and promotes social welfare when each firm in an industry restricts itself to adjusting its quantity of product produced and the quantities of its resources purchased in reaction to changes in the market prices for products and resources. For neoclassical theory, therefore, competition in the third millennium will be, can *only* be, efficiency seeking. Furthermore, competition *should* be efficiency seeking because perfect competition in all industries maximizes consumer welfare — neoclassical theory is both positive and normative.

In contrast, conventional *business* wisdom is that competition in the third millennium will primarily be an effectiveness-seeking enterprise. That is, business success will depend crucially on innovations that enable firms to deliver more value to customers than do their competitors. In this view, “more customer value” means “perceived by some market segment(s) to be worth more.” For example, busi-

ness success will require innovations that enable firms to deliver higher quality, more reliable products than competitors. Therefore, competition produces *effective* outcomes because superior profits flow to firms that, while “holding the line” on costs, innovate to produce superior value. For businesspeople, it is only common sense that effectiveness seeking, i.e., delivering more value, promotes social welfare.

Although effectiveness seeking is clearly pro-social to businesspeople, neoclassicists disagree. For neoclassical theory, if a firm produces a product having more value than its rivals, this results in “product differentiation,” a downward sloping demand curve for the competitor, and “monopolistic competition” in the industry. As first argued by Chamberlin (1933), monopolistic competition *always* decreases economic efficiency. Therefore, to the extent that firms seek and are successful in improving their effectiveness, social welfare must *decrease*. Indeed, empirical studies in the neoclassical research tradition conclude that the social costs of society’s permissive attitude toward monopolistic competition approach 13% of GDP (Harberger, 1954; Bergson, 1973; Siegfried and Tieman, 1974; Cowling and Mueller, 1978).

The view that effectiveness seeking is antisocial because it leads to monopolistic competition is the standard, textbook conclusion in economics. Thus, for example, Samuelson and Nordhaus (1995, p. 170) find the view has “real appeal.” Similarly, Mankiw (1998, p. 370) concludes:

In the end, we can conclude only that monopolistically competitive markets do not have all the desirable welfare

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properties of perfectly competitive markets. That is, the invisible hand does not ensure that total surplus is maximized under monopolistic competition.

The “effectiveness-seeking-is-antisocial” thesis is so counterintuitive that exploring how neoclassical economics comes to such a conclusion is worth pursuing. This is especially important because this view still dominates major economics textbooks, public policy debates including antitrust law, and perfect competition is the only theory of competition that most students ever see that is alleged to be socially beneficial. Also worth pursuing, we argue, is a theory of competition that values effectiveness seeking. Therefore, this essay reviews Chamberlin’s (1933) famous argument that forms the basis for the “antisocial” thesis. We then use resource-advantage (R-A) theory to argue that competition in the third millennium will be *both* efficiency seeking and effectiveness seeking. We conclude by arguing that effectiveness seeking is pro-social.

1.1. Effectiveness seeking is antisocial

Chamberlin’s (1933) *Theory of Monopolistic Competition* was written as a PhD thesis at Harvard in 1927. He shortened his thesis to book form in 1933 and revised it in 1937, 1938, 1942, 1948, 1956, and 1962, modifying his ideas to some extent (Hunt, 2000c, p. 39–47). For him, pure competition exists when there are (1) many sellers, (2) a homogeneous product, i.e., a *commodity*, (3) a horizontal demand curve facing each competitor, and (4) an equilibrium price equaling the market clearing price. Chamberlin’s theory addresses the noncommodity, “monopoly” situation that results from heterogeneous demand and supply. That is, he addresses *product differentiation*:

A general class of product is differentiated if any significant basis exists for distinguishing the goods (or services) of one seller from those of another. Such a basis may be real or fancied, so long as it is of any importance whatever to buyers, and leads to a preference for one variety of the product over another. Where such differentiation exists, even though it be slight, buyers will be paired with sellers, not by chance and at random (as under pure competition), but according to their preferences (Chamberlin, 1933/1962, p. 56).

Note that Chamberlin indicates that differences among goods, e.g., differences in quality, may be “real or fancied,” as long as they lead to differences in preferences and a downward sloping demand curve. Hence, when the effectiveness seeking of firms is successful, e.g., quality differences lead to differences in preferences, then product differentiation exists.

For Chamberlin (1933), theories of pure and perfect competition simply do not apply to most industries because it makes no sense to speak of “industry de-

mand” and “industry supply” curves in industries with product differentiation:

Consider, for instance, the competitive analysis as applied to the automobile industry. How is one to conceive of demand and supply curves for ‘automobiles in general’ when, owing to variations in quality, design, and type, the prices of individual units range from several hundred to many thousands of dollars? ... Competitive theory does not fit because competition throughout the group is only partial and is highly uneven (Chamberlin, 1933/1962, p. 9).

What is needed, argues Chamberlin, is a theory of competition that recognizes that most industries have elements of both monopoly and competition — hence his label, “monopolistic” competition. Chamberlin (1933/1962, p. 74–81) analyzes the welfare implications of product differentiation by examining the circumstances that must prevail for a monopolistic firm to be in equilibrium. He draws a downward sloping demand curve, a U-shaped total cost curve, a downward sloping marginal cost (MC) curve, and a U-shaped marginal revenue (MR) curve. He next assumes firms to be profit-maximizers and points out that the profit-maximizing quantity occurs where $MC=MR$. He then directs the reader to the demand curve and shows that the profit-maximizing quantity occurs at a price that exceeds MR. Because under pure (as well as perfect) competition $MC=MR=Price$, he concludes:

[T]he effect of monopoly elements on the individual’s adjustment ... is characteristically to render his price higher and his scale of production smaller than under pure competition. This is a result of the sloping demand curve, as compared with the perfectly horizontal one of pure competition. No matter what position the demand curve is drawn, its negative slope will define maximum profits at a point further to the left than if it were horizontal, as under pure competition. This means, in general, higher production costs and higher prices (p. 77–8).

Chamberlin (1933/1962, p. 81–100) turns next to the issue of competition from substitutes and, again, focuses on the static-equilibrium situation. He posits that groups of competitors exist to which each monopolistic firm belongs and he seeks the results of such *group* equilibria. As to price and quantity, “the price is inevitably higher and the scale of production inevitably smaller under monopolistic competition than under pure competition” (p. 88). As to factors of production, i.e., resources, because excess productive capacity has no “automatic corrective,” he finds that the “surplus capacity is never cast off and the result is high prices and waste” (p. 109). As to whether labor is exploited, he finds “all factors are necessarily ‘exploited’ ... [for] it would be impossible for employers to avoid the charge of ‘exploitation’ without going into bankruptcy” (p. 183). Because his dismal conclusions used standard, static-equilibrium analysis, they became a standard element of neoclassical economics (Samuelson and Nordhaus, 1995; Mankiw, 1998). Hence,

we have the counterintuitive implication of neoclassical theory that effectiveness seeking is antisocial.

Grounding the view that effectiveness seeking is pro-social requires a theory of competition that not only assumes that intra-industry demand and supply are heterogeneous (like Chamberlin), but also views (1) competition as dynamic, (2) innovation as endogenous, and (3) competitive processes as disequilibrium-provoking. We argue that R-A theory has these requisites.

1.2. R-A theory

The R-A theory of competition is an interdisciplinary theory that is being developed in marketing (Hunt, 1997d, 1999, 2000c; Hunt and Morgan, 1995, 1996, 1997) management (Hunt, 1995, 2000b), public policy (Hunt, 1998), and economics (Hunt, 1997a,b,c, 2000a). R-A theory is an evolutionary, process theory of competition. It views firms and resources as the heritable, durable units of evolutionary selection, with competition for comparative advantages in resources constituting the selection process. Because the selection process focuses on firms and resources that are locally fitter, rather than maximally fittest, R-A theory is non-consummatory (i.e., there is no predetermined end-point for the process of competition). Therefore, the theory accommodates path dependencies. Thus, though R-A competition is a process that is *moving*, it is not moving toward some ideal point (such as a Pareto-optimal, general equilibrium).

As an interdisciplinary theory, R-A theory traces to several research traditions. First, it traces to the historical tradition and the resource-based view of the firm. Con-

trasted with the neoclassical tradition's view that firms are time-independent, mathematical abstractions that combine homogeneous, perfectly mobile resources, the resource-based view posits that firms are entities that (1) are historically situated in space and time and (2) combine heterogeneous, imperfectly mobile resources. Second, it draws on marketing's heterogeneous demand theory, which holds that, because intra-industry demand is significantly heterogeneous, different market offerings are required for different market segments in the same industry. Third, it draws on industrial-organization economics and differential advantage theory, which hold that marketplace positions of competitive advantage (or disadvantage) determine superior (or inferior) financial performance. Fourth, it draws on evolutionary economics, which views competition as a selection process, a *struggle*, that produces innovations, Schumpeter's (1950) "creative destruction," increases in productivity, and economic growth. Fifth, it draws on "Austrian" economics, which stresses the importance of processes, entrepreneurship, and economic institutions. Because information is dispersed and tacit in the process of competitive rivalry, competition results in knowledge-discovery. Sixth, it draws on economic sociology and institutional economics, which hold that societal institutions, such as laws, customs, taboos, traditions, and moral codes, produce order by structuring political, economic, and social interaction. The kind of order so produced influences the process of competition and, thereby, such outcomes as productivity and economic growth.

Although R-A theory draws on several streams of literatures, it is neither the same thing as any of the

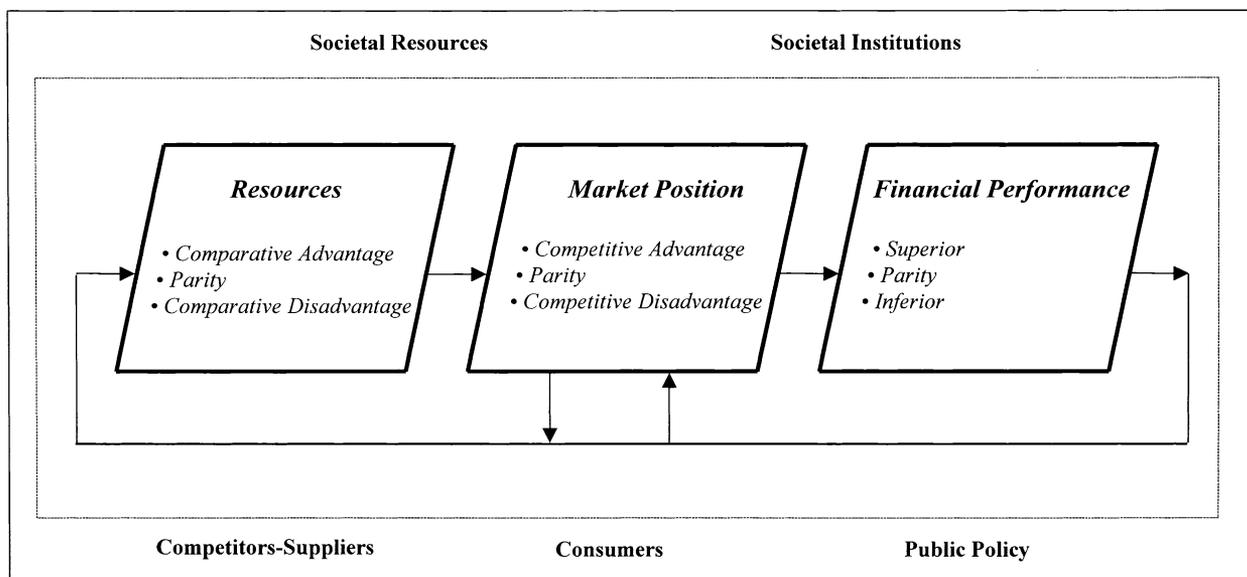


Fig. 1. A schematic of the R-A theory of competition. Competition is the diequilibrating, ongoing process that consists of the constant struggle among firms for a comparative advantage in resources that will yield a marketplace position of competitive advantage and, thereby, superior financial performance. Firms learn through competition as a result of feedback from relative financial performance "signaling" relative market position, which in turn signals relative resources. Sources: Hunt and Morgan (1997).

Relative Resource-Produced Value

	Lower	Parity	Superior
Lower	1 Indeterminate Position	2 Competitive Advantage	3 Competitive Advantage
Parity	4 Competitive Disadvantage	5 Parity Position	6 Competitive Advantage
Higher	7 Competitive Disadvantage	8 Competitive Disadvantage	9 Indeterminate Position

Fig. 2. Competitive position matrix. The marketplace position of competitive advantage identified as cell 3 results from the firm, relative to its competitors, having a resource assortment that enables it to produce an offering for some market segment(s) that (a) is perceived to be of superior value and (b) is produced at lower costs. Sources: Adapted from Hunt and Morgan (1995).

works in its pedigree nor a composite of such works. For example, Schumpeter (1934, 1950) starts from equilibrium and focuses exclusively on major innovations in his theory of economic growth. In contrast, R-A theory does not start from equilibrium, it includes both major and incremental innovations, and it shows how *both* kinds of innovations drive economic growth. Figs. 1 and 2 provide a schematic depiction of the relationships among R-A theory's key constructs and Table 1 shows its foundational premises. (Readers are encouraged to engage in constructive debate by identifying the premises of their favorite theories of competition and comparing such theories with R-A theory's premises. It is only by comparing rival structures and premises that one can

clearly evaluate how and why theories are consistent or inconsistent, saying different things or saying the same things differently, genuinely rival or actually complementary.) Because the theory draws on Austrian and evolutionary economics, (1) innovation and organizational learning are endogenous to R-A competition; (2) firms and consumers have imperfect information; and (3) entrepreneurial competence and institutions affect economic performance. Because it incorporates marketing's heterogeneous demand theory, intra-industry demand is viewed as significantly heterogeneous as to consumers' tastes and preferences. Therefore, different market offerings are required for different market segments in the same industry. Because R-A theory adopts a resource-based view of the firm, firms are theorized to be historically situated combiners of heterogeneous, imperfectly mobile resources. Combining the resource-based view of the firm with heterogeneous demand and imperfect information results in diversity in the sizes, scopes, and levels of profitability of firms. This diversity exists not only across industries but also for firms within the same industry.

R-A theory stresses the importance of market segments, a comparative advantage (disadvantage) in resources, and marketplace positions of competitive advantage (disadvantage). Market segments are intra-industry groups of consumers whose tastes and preferences for an industry's output are relatively homogeneous. (The ultimate segment is, of course, a segment of one customer.) 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(s). Because many of the resources of firms within an industry are significantly heterogeneous and relatively immobile, some firms will have a comparative advantage and others a comparative disadvantage in efficiently and/or effectively producing market offerings that have value for particular market segments.

International trade theory has long recognized that nations have heterogeneous, immobile resources. Therefore, it focuses on the implications of comparative advantages in societal resources on trade and wealth.

Table 1
Foundational premises of R-A theory

P1. Demand is:	heterogeneous across industries, heterogeneous within industries, and dynamic.
P2. Consumer information is:	imperfect and costly.
P3. Human motivation is:	constrained self-interest seeking.
P4. The firm's objective is:	superior financial performance.
P5. The firm's information is:	imperfect and costly.
P6. The firm's resources are:	financial, physical, legal, human, organizational, informational, and relational.
P7. Resource characteristics are:	heterogeneous and imperfectly mobile.
P8. The role of management is:	to recognize, understand, create, select, implement, and modify strategies.
P9. Competitive dynamics are:	disequilibrium-provoking, with innovation endogenous.

The foundational premises of R-A theory are to be interpreted as descriptively realistic of the general case. Specifically, P1, P2, P5, and P7 for R-A theory are *not* viewed as idealized states that anchor end-points of continua. For example, P1 posits that intra-industry demand in most industries (i.e., the general case) is *substantially* heterogeneous, not perfectly heterogeneous. Source: Adapted from Hunt and Morgan (1997).

Similarly, R-A theory recognizes that many of the resources of firms within the same industry are significantly heterogeneous and relatively immobile. Therefore, it focuses on the implications of comparative advantages in firm-level resources on competition, productivity, and economic growth, i.e., on *wealth*.

Analogous to nations, some firms will have a comparative advantage and others a comparative disadvantage in efficiently and/or effectively producing particular market offerings that have value — where “value” means “perceived worth” — for particular marketing segments.

Specifically, when firms have a comparative advantage (or disadvantage) in resources, they will occupy marketplace positions of competitive advantage (or disadvantage), as shown in Fig. 1 and further explicated in the nine marketplace positions in Fig. 2. Marketplace positions of competitive advantage (or disadvantage) then result in superior (or inferior) financial performance. Firms occupying positions of competitive advantage (cells 2, 3, and 6 in Fig. 2) can continue to do so if (1) they engage in proactive innovation, (2) they continually reinvest in the resources that produced that competitive advantage, and/or (3) rivals’ acquisition and reactive innovation efforts fail. Rivals will fail (or take a long time to succeed) when an advantage-producing resource is either protected by such societal institutions as patents or it is causally ambiguous, socially complex, highly interconnected, tacit, or has time compression diseconomies or mass efficiencies.

1.3. Competition, efficiency seeking, and effectiveness seeking

Competition, for R-A theory, is the disequilibrating, ongoing process that consists of the constant struggle among firms for comparative advantages in resources that will yield marketplace positions of competitive advantage for some market segment(s) and, thereby, superior financial performance. Firms learn as a result of feedback from relative financial performance “signaling” relative market position, which in turn signals relative resources. Therefore, competition produces organizational learning. As shown in Fig. 1, the nature of competitive processes and how well they work (e.g., how well competition increases productivity and produces economic growth) are significantly influenced by five environmental factors: the societal resources on which firms draw, the societal institutions that structure economic actions, the specific actions of competitors and suppliers, the behaviors of consumers, and public policy.

Therefore, R-A theory shows why competition is both efficiency seeking and effectiveness seeking. Firms seek marketplace positions of competitive advantage (cells 2, 3, and 6 in Fig. 2) because such positions result in superior financial performance. In cell 2, they have an efficiency advantage, i.e., they *more* efficiently produce value. In cell 6, they have an effectiveness advantage, i.e., they efficiently

produce *more* value. In cell 3, they have an efficiency–effectiveness advantage, i.e., they *more* efficiently produce *more* value.

Because R-A theory proposes that firms seek superior financial performance (e.g., more profits than last year, an ROI better than one’s rivals), it explains why competition is dynamic. The pursuit of *superior* financial performance — more than, better than — prompts both the proactive innovations and reactive innovations that make competition dynamic. An example of proactive innovation is an entrepreneur spotting an unserved market segment and then developing a market offering for it. An example of a reactive innovation is a firm recognizing that it occupies a position of competitive disadvantage (e.g., cell 4 in Fig. 2) and innovating to produce a market offering that has such increased value that the firm “leapfrogs” to cell 6.

Because all firms competing for a market segment cannot have superior performance simultaneously, all competitors are prompted to seek innovations that will make them more efficient (moving upward in Fig. 2) and more effective (moving to the right in Fig. 2). These innovations, in turn, result in increases in firm level, industry-level, and societal-level productivity (Hunt, 1995, 1997b; Hunt and Morgan, 1995, 1996). It is these increases in productivity that drive economic growth (Hunt, 1997c, 1998; Hunt and Morgan, 1997). Therefore, both efficiency seeking and effectiveness seeking (1) are the natural outcomes of R-A competition, (2) make competition necessarily dynamic, (3) result in increases in productivity and economic growth, and accordingly, (4) contribute to social welfare. Therefore, to the extent that there is *competition* in the third millennium, it will be efficiency seeking, effectiveness seeking, and pro-social.

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