Marketing, Market Growth, and Endogenous Growth Theory: An Inquiry Into the Causes of Market Growth

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Market growth plays a central role in virtually all strategic marketing models developed in the past 30 years. Although marketing scholars seem implicitly to assume that marketing efforts contribute in some way to market growth, market growth per se remains a conceptual black box in marketing. Using new developments in endogenous growth theory, this article explores the link between marketing actions and market growth. In particular, the authors develop a conceptual model arguing that the effect of endogenous actions on market growth is mediated by knowledge creation, matching, and diffusion. Propositions are proposed to guide future research. The authors discuss the implications for marketing strategy at both business discipline and public policy levels.

Keywords: *market growth; marketing and society; macromarketing; development*

Almost 50 years ago, Peter Drucker (1958) commented that "marketing . . . by itself [can] . . . go far toward changing the entire economic tone of [underdeveloped economies] . . . without any change in methods of production, distribution of population, or of income" (p. 255). Similarly, in explaining the emergence of large-scale capitalism in the United States, Britain, and Germany, Chandler (1977) identified three sets of investments, "in production facilities . . . *in a national and international marketing and distribution network* [emphasis added] [and] . . . and in management" (p. 8). In the same vein, Falkenberg (1996) explained the sources of the firms' wealth by reference to "behavioral assets," including "strategic relationships and alliances . . . [with] suppliers and distributors; the creation and execution of *marketing strategies* . . . the generation of *market knowledge*; product development, positioning . . . distribution: communication; and the like" (emphasis added, p. 7). Finally, and more recently, Wilkie and Moore (1999) asked, "What does marketing contribute to society?" (p. 198). In their wide-ranging assessment, they noted that while "obvious in the abstract, marketing's contributions to economic well-being . . . have not been recognized. . . . However, *marketing does affect aggregate demand* [emphasis added]" (p. 207).

There seems to be a deep intuition in each of these statements that marketing activities play a critical role in the generation of economic growth. However, such intuitions are difficult to evaluate because of the complexity and causally ambiguous nature of the phenomena. While it is clear that the issue is of great importance to the discipline, it would be helpful if such intuitions could be advanced beyond statements that seem vaguely right. While marketing scholars do seem to assume that marketing efforts contribute to market growth, exactly what that contribution is, is not clear. Indeed, clarification is hampered in part by the

Journal of the Academy of Marketing Science.
Volume 33, No. 3, pages 347-359.
DOI: 10.1177/0092070305276324

fact that many marketing scholars simply assume that this relationship is clear. In this article, we take the position that it is not. Moreover, coherent theories explaining marketing's relationship to marketing growth have not yet emerged. Although explaining growth (at the country and industry level) has been a central concern for economic and industrial organization scholars, it remains a conceptual "black box" in marketing. Despite the fact that market growth has played a central role in virtually every strategic marketing model developed in the past 30 years, the concept remains vague. The purpose of this article is to present a theoretical discussion of economic growth and of marketing's role in creating economic growth. Although our focus is on marketing's contributions to economic growth, this does not imply that marketing is solely responsible for economic growth. Indeed, we acknowledge that the arguments developed here could be modified to address the role of engineering, management, finance, design, and other contributions to economic growth. In our assessment, we examine the link between mundane marketing activities and economic growth. It is our contention that ordinary (rather than extraordinary) marketing activities, multiplied across an economy, across time stimulate pure economic growth. If this is the case, the conduct, quality, extent, and variety of the marketing system (the totality of a nation's marketing-related activities, institutions, infrastructure, and practices) should be viewed as a critical concern for policy makers. Curiously (as discussed below), the link between marketing activities and growth will be of limited practical concern to marketing practitioners. Thus, this article has a decidedly policy-oriented perspective.

In the next section, we assess the place of market growth in the marketing literature. Then, we explore recent developments in endogenous growth and resource-advantage theories to help shed light on marketing's role in explaining market growth. Finally, on the basis of the arguments set forth, we develop responses to some of marketing's perennial critics.

The study contributes to marketing knowledge in two main ways. First, drawing on endogenous growth and resource-advantage theories, it develops a theoretical argument linking marketing activities and market growth. Second, the study provides a starting point for addressing long-standing criticisms of marketing in general and for a larger role for marketing in the firm, at the policy level, and in academic discourse.

THEORETICAL BACKDROP

Market Growth in Marketing

Although the term *market growth* is found extensively in the marketing literature (usually in the context of market growth *rate*), it has not been closely examined. When referred to, it is generally used as a contingency (or control) variable in strategic marketing models. Characteristic of this use is that market growth is simply a given (Varadarajan, Clark, and Pride 1992). Thus, product life cycle and experience curve models take market growth as a strict function of time, the growth share matrix *assumes* a growth rate (usually high or low), learning curve models forecast declining costs as a function of experience-driven growth, and population ecology models include growth as a function of population size and resources. Aaker and Day's (1986) examination of the dangers of high-growth markets takes growth rates per se as given. Market growth has received closer attention by marketing scholars in four areas: diffusion, market share, and primary demand stimulation/advertising effects models, and resource-advantage theory.

Diffusion models. Generally used for market forecasting and product launch diagnostics at the firm level, the basic diffusion model conceptualizes market growth in terms of how many purchasing units adopt a product, as a function of time, and of the market's propensity to innovate and to imitate (e.g., Bass 1969). Refinements to this basic model (Bass, Krishnan, and Jain 1994) allow for strategic marketing effort to affect propensity to innovate and to imitate:

$$S_t = p\underline{N} + (q - p)\, N_t - q/\underline{N} \times (N_t)^2 \times M, \quad (1)$$

S_t = sales at Time t
p = market's propensity to innovate
q = market's propensity to imitate
$\underline{N}$ = all eventual adopters of the product
N_t = number of customers who have already adopted the product at Time t
M = marketing effort multiplier

Because most diffusion models take market potential as a given, bounded at $\underline{N}$, they arbitrarily limit growth. As a result, marketing's effect is not on $\underline{N}$ but p and q. This constraint is reasonable in light of the purpose of diffusion models. However, it does limit the effect of marketing variables to influencing the speed at which the market limit ($\underline{N}$) is reached (hence, affecting growth *rate*), but not the limit itself. While more sophisticated diffusion models allow for change in $\underline{N}$ (see Mahajan, Muller, and Wind 2000), this change is not related to marketing effort. Thus, market growth per se remains a black box.

Market share models. In market share models, *firm*-level growth is modeled as a function of marketing effort and marketing mix (Bell, Keeney, and Little 1975; Cooper and Nakanishi 1988; Kotler 1984; Naert and Bultez 1973). Kotler's (1984) "fundamental theorem of marketing" is a typical if simple example. In it, he shows that firm-level

growth in a competitive market is related to the firm's *relative* marketing effort:

$$s_i = M_i / \sum_{j=1}^{m} M_j, \quad (2)$$

where

s_i = Firm i's market share,
M_i = Firm i's marketing effort, and
M_j = Firm j's marketing effort.

Although in this formulation (as well as in the more sophisticated renderings of it), it is market share rather than market growth that is of interest, the implications for the latter are clear (if undeveloped). Kotler's theorem assumes the sum of all market shares = 1—a zero-sum game—but has nothing to say about the absolute size of the market. However, if we allow the reasonable assumption that total industry sales as a proportion of gross domestic product (GDP) may grow or decline, we are left with an intriguing question: does total marketing effort in the industry affect the industry's share of GDP (still a zero-sum game)? Further yet, can industry marketing effort increase GDP (no longer a zero-sum game)? These questions have not been examined in the marketing literature.

Primary demand stimulation/advertising effects models. Paradoxically, although most strategic marketing tools have implicit assumptions regarding the exogeneity of market growth (Varadarajan, Clark, and Pride 1992), marketing scholars have long *assumed* that marketing effort affects market growth (e.g., Schultz and Wittink 1976). This assumption is seen most clearly in the primary demand stimulation and advertising effects models, which explicitly investigate (among other things) the effects of marketing effort on market growth. These models are based on the notion of market *expansibility* (Kotler 1984) and the distinction between the market share switching and primary demand stimulation effects of marketing efforts (Hanssens 1980).

Numerous studies have investigated marketing's impact on primary demand in specific industries (e.g., Franses 1991), on its role in stimulating socially undesirable behaviors (e.g., Bourgeois and Barnes 1979), and on its relationship to primary and secondary demand in competitive markets (e.g., Hanssens 1980). As insightful as these studies are, they fall short of a satisfying appraisal of the relationship between marketing and market growth in a number of respects. First, much of the work is theoretically thin because the studies aim at either an empirical vindication of the assumption that marketing efforts affect primary demand or because it has an overriding policy agenda (e.g., advertising causes teenagers to smoke). The assumption per se is not elaborated, nor are theoretically rich justifications for the link put foreword. Second, as a result of the above, much of the research has been constrained to stimulus-response-type models. Finally, most of the research focuses on advertising and neglects other important marketing activities (such as new product development and marketing research).

Resource-advantage theory. Perhaps the most promising perspective in marketing on market growth is found in the emerging resource-advantage theory of competition (R-A theory hereafter; Hunt 1995, 1997a, 1997b, 1997c, 2000; Hunt and Morgan 1995). According to Hunt (1997c), R-A theory is an "evolutionary, disequilibrium-provoking, process theory of competition, in which innovation and organizational learning are endogenous, firms and consumers have imperfect information, and in which institutions and public policy affect economic performance" (p. 338). R-A theory envisages competition as "the 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" (Hunt 2000:135). "Resources" are tangible (financial, physical, or human) or intangible (entrepreneurial skills and capabilities, informational, or relational) entities available to enable firms to produce valued market offerings for customers, efficiently and effectively (Hunt 2000:135). Control of such resources is desirable because they are rare, heterogeneous, and imperfectly mobile. "Advantage" is understood to mean "relative" rather than "absolute." In this context, Hunt (2000) saw a relation between competition and innovation: "Competition. . . motivates the constant drive toward efficiency-enhancing and effectiveness-enhancing innovation" (p. 171). Although Hunt (1997a) did not elaborate on marketing's role in innovation (and hence in producing growth), the link is explicitly alluded to. We take up some of the market growth implications of Hunt's ideas more fully in subsequent sections.

While market growth figures prominently in these and other strategic marketing models, it remains only partially examined. In many cases, market growth is assumed to be determined by factors other than marketing effort. Indeed, growth is often seen simply as something marketers respond to. This perspective has hampered the development of marketing in several important ways: (1) it constrains the role of marketing in the firm to a mere functionality, (2) it limits the role of marketing action to mere response, (3) it leaves only a very limited role for marketing at the policy level, and (4) it fuels long-standing criticisms that marketing is a superfluous and wasteful activity. We return to some of these issues toward the end of the article.

In the next section, we develop a theoretical framework arguing a critical link between marketing activities and market growth. This framework provides a basis for answering critics (marketing is indeed productive in the

societal welfare equation) as well as material for marketing scholars in pursuing a new broadening of the marketing concept (marketing activities do indeed lead to market growth).

NEW PERSPECTIVES ON GROWTH

Preliminary Issues

Economic growth is commonly thought of in three related ways: (1) firm growth attributable to competitive aggression and market share shifting—zero-sum games (G1); (2) growth attributable to the business cycle, affecting all firms and all markets (G2); and (3) pure growth (G3), not strictly explainable in terms of either G1- or G2-type growth. Clearly, G1-type growth can and does occur in otherwise growth-static contexts—one firm takes market share away from another and so experiences growth, but their net growth to the system is zero. On the other hand, G2-type growth may occur repeatedly, but with a flat trend line—indicating that the business cycle is simply oscillating around a fixed mean. G3-type growth—what we refer to as "pure growth"—is the long-term upward trend across business cycles. That is, G3-type growth is what is left after we adjust to account for inflation and business cycles. While most marketing activity will clearly have G1-type competitive growth implications and probably will also contribute to the intensity and duration of business cycles (G2-type secular growth/decline), consideration of these types of growth is largely beyond the scope of this article. Rather, we propose to examine the relationship between marketing and G3-type growth. Henceforth, unless specified otherwise, we will be focusing primarily on G3-type or pure growth and will use the terms interchangeably. G3-type growth has been of central concern to economists, but with a few notable exceptions, has not been discussed in the marketing literature. The most common exception to this is where G3-type growth is assumed to be an uncontrollable variable to which marketers must respond. The purpose of this section is to examine this view at greater length and to develop an argument connecting marketing actions and G3-type growth.

Our discussion begs the question: "What is *market* growth?" The question is more difficult to answer than may at first be apparent. To the economist, who is generally interested in growth at the national level (why do nations grow?), the question is answered by reference to some measure of increase (decrease) in national output, for example, $(GDP_{year\ 2} - GDP_{year\ 1})/GDP_{year\ 1}$. Conceptually (if not empirically), national growth is fairly easy to delimit because definitions of who or what are the growth-producing national entities (people, assets, organizations, firms), and therefore which growth should be measured, are reasonably well established. To make comparisons easier, national growth rates are usually expressed in real terms, using an arbitrary year (e.g., 1980) as a reference.

Although defining market growth is conceptually similar (e.g., Market Size $_{year\ 2}$ – Market Size $_{year\ 1}$/Market Size $_{year\ 1}$), it is more difficult to delimit because definitions of what a market is vary considerably. Because no *standard* definition of *market* has emerged, no *standard* definition of *market growth* is possible. The result is potential confusion and incommensurability of measures. However, this problem is essentially a function of terms and definitions. Such considerations are largely beyond the scope of this article, which is more concerned with an exposition of growth theory and its relevance in marketing. Thus, for the purposes of our exposition, we define G3 growth quite broadly as follows:

$$\frac{\text{Inflation \& Cycle Adjusted Unit Size}_{year\ 2} - \text{Inflation \& Cycle Adjusted Unit Size}_{year\ 1}}{\text{Inflation \& Cycle Adjusted Unit Size}_{year\ 1}}$$

and leave operationalization concerns to future studies. Our use of "unit" provides a sufficiently broad view of growth so that we can move back and forth between a variety of levels of growth (market, nation, world), without hitting the wall of incommensurability, which will surely arise when actual measures are proposed.

New ("Endogenous") Economic Growth

Explaining country and industry growth has been a central preoccupation of modern economics (Romer 1986; Schumpeter 1934; Solow 1956). Traditional economics viewed growth as *exogenous*. In these theories, use of the term *exogenous* is used to imply that key drivers of growth are assumed to be beyond human control (i.e., externally controlled). Thus, traditional theories envisioned growth as being *exogenously* limited by, for example, the extent of the market (Smith), supply of land and labor (Malthus), or availability of capital (Harrod). The dominant view was that markets were at, or near, equilibrium (i.e., the most efficient allocation of resources) and that growth occurred only as additional requisite inputs were made. However, because of resource scarcity, incremental applications of an input result in diminishing returns (more and more in to get less and less out), and so to a sort of "natural" ceiling to growth. Groundbreaking work by Robert Solow (1956) helped push through this ceiling.

Solow (1956) showed that only a small part of economic growth could be explained by increases in inputs (i.e., labor and/or capital investment). That part of growth that could not be accounted for was subsequently called the "Solow residual." The consensus was that Solow's residual was best explained by advances in technology.

The idea is simple enough; advancing technology makes it possible to get more and more out for less and less in. However, it took economists three decades to formalize Solow's insight, conceptualizing technological advance in terms of knowledge creation and accumulation, and explaining its role in driving economic growth. Romer (1986) and Lucas (1988) led the way in developing the new approaches to growth.

In contrast to traditional *exogenous* growth models, new growth models are characterized as *endogenous*. The term *endogenous* is used in these theories to convey the notion that growth is driven largely by human decisions. Thus, Romer (1986) argued that "long-run growth is driven primarily by accumulation and transmission of knowledge" (p. 1003). Viewing economic growth as a function of human learning and human learning as a function of human decisions, the new models give prominent place to policy choices that stimulate learning, such as investments in education, training, basic research, and R&D.

The new models see growth from the perspective of human decisions and activities—primarily inventions, innovations and discoveries (i.e., ideas)—which combine the world's tangible and intangible resources in novel and ever more efficient combinations. Most (economically) useful ideas will be mundane rather than earthshaking. It is the aggregation of these useful ideas, across an economy and across time, that results in growth. Because the cost of producing ideas accrues primarily in the first unit, the incremental cost of reproducing them decreases swiftly and sharply. Moreover, because ideas can be used by anyone, or by everyone, at the same time, growth is theoretically unlimited because "knowledge will never reach a level where its marginal product is no longer worth the trouble it takes to do research" (Romer 1986:1020). As long as the environment favors useful knowledge development (i.e., policies designed to stimulate, optimize, and reward invention, discovery, and innovation), growth will be endless.

If new and useful knowledge is to have its fullest effects on growth, it must become known to as many potential users as possible. Thus, knowledge spillovers (of new technologies, new applications of existing technologies, production, distribution, and marketing know-how) from one industry to another are needed to stimulate growth beyond the parochial bounds of the knowledge in its initial application. One of the effects of knowledge spillovers is to increase the rate of trial-and-error experimentation with new ideas, increasing the chance that useful applications will be found. As long as the environment favors knowledge dispersal (i.e., policy is designed to facilitate wide and efficient distribution of new knowledge), growth will be widespread in the economy.

Because the new growth theories assume the potential for knowledge accumulation (invention, discovery, innovation) is limitless, they conclude, theoretically, that growth is also limitless. Emphasis in the previous sentence should be placed on the word *theoretically*. For example, empirical evidence suggests that macro variables such as inflation and political stability also have a significant impact on measured growth rates (Barro 1991; Palley 1996). It is not likely that such issues will disappear. As compelling as the new theories are, external (exogenous) factors will inevitably coexist and codetermine actual growth. Some of these external factors will be structural (e.g., institutional development, economic mix), some reflecting long-term trends (e.g., business cycle, population growth), and others reflecting the state of nature (e.g., resource endowment). Clearly, both exogenous and endogenous approaches to growth have merit. While exogenous models reflect realistic prospects for, and limits to, growth within a given resource/technology regime, endogenous models argue the possibility of yet unknown resource/technology regimes and expanded horizons for growth.

Such a balance between old and new growth models is consistent with institutional theory (Scott 2001), which envisages a variety of barriers including legal, normative, and cultural, which may prevent the movement of ideas within and across national borders. The effect of this is a set of global constraints, inhibiting the diffusion of innovations/inventions/discoveries, resulting in unequal development and, often, stunted growth. Thus, for example, less-developed countries such as Pakistan seem to be stuck with stagnant growth. The reason for this is not, as per old notions of growth, simply that Pakistan lacks resources but, according to the new theories, that she also lacks growth-critical inventions/innovations/discoveries. In other words, underdeveloped nations may be underdeveloped partly because they lack resources and partly because their culture and/or infrastructures prevent spillovers from the rest of the world from having their full effect.

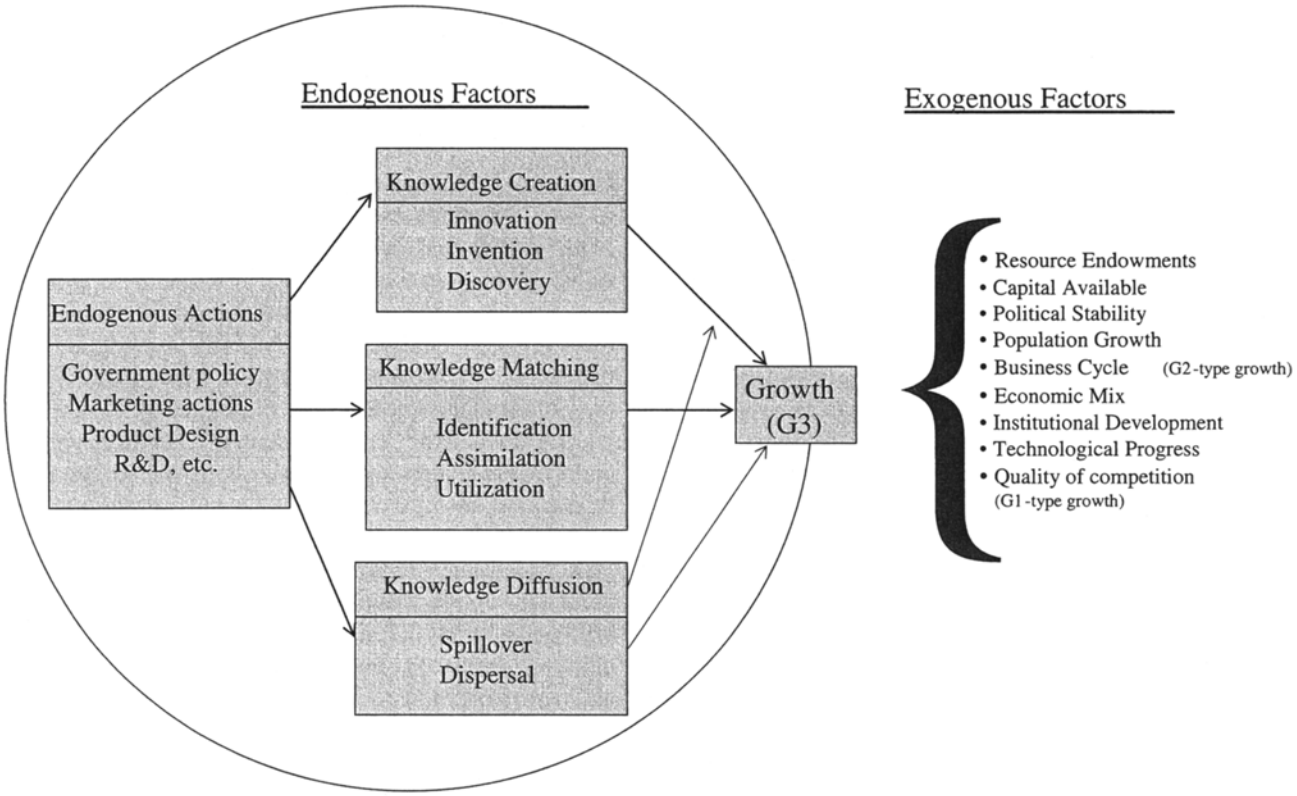
Figure 1 offers a stylized characterization of the relationship between exogenous and endogenous growth. Our purpose here is to explain the new (endogenous) rather than the old (exogenous) approaches to growth. The inclusion of marketing actions will be taken up below.

The move from exogenous to endogenous explanations of growth is significant for two reasons: (1) the new theory places the initiative for growth on policy decisions rather than uncontrollable events and circumstances, and (2) endogenous growth emphasizes human capital and knowledge. It is these aspects of endogenous theory that make it particularly useful in investigating market growth from a marketing perspective.

Marketing and Endogenous Market Growth

While understanding and managing knowledge creation (invention, discovery, innovation) and diffusion (spillovers) are critical for growth, there has been

FIGURE 1
Marketing and Endogenous Growth



controversy over which policies are most likely to stimulate growth. There are two schools of thought. The first (sometimes called the *European model*) argues for a formal industrial policy in which governments identify areas they believe have potential to stimulate national (G3) growth most strongly (e.g., High Definition Television, laser technology, cold fusion). Funds are made available to academic researchers in those areas, and "national champion" firms are picked to receive subsidies and official promotion. This approach is mirrored at the firm level, when central policy makers determine which projects R&D should focus on.

The second approach begins with the assumption that it is not possible, a priori, to know which knowledge (innovation, invention, discovery) will be useful. This creates something of a dilemma. If it cannot be predetermined which knowledge will be useful, and if resources continue to be invested in producing new ideas, much waste will result. Advocates of this approach argue that market forces should be allowed to sort out useful from nonuseful ideas. At the macro level, this assumes policy that balances incentives for innovation, invention and discovery (strong property rights), and tolerance for failure (easy bankruptcies), with the widest possible distribution of the knowledge (public visibility and low prices).

One implication of this second approach at the firm level is a mandate for being responsive to market needs by directing knowledge creation efforts toward solving problems faced by customers (Kurtzman 1997), because customers are closest to, and most familiar with, product use issues. By responding to the most lucrative of these needs, firms develop knowledge that on first screen at least promises to be useful (i.e., promotes growth). This argument is at the root of the recent trend toward knowledge-based strategic thinking. If it sounds suspiciously like traditional marketing, that is because it is.

While economist's arguments place marketing activities in an important place in the growth equation, their descriptions of marketing tend to be broad-brush and crude, falling under the most general rubric of the marketing concept. This is understandable given their disciplinary concerns. Consideration of the endogenous growth arguments outlined above suggests a much richer role for marketing in the dynamics of growth. Clearly, a more fine-grained approach would parse out the marketing function's knowledge and actions related to demand and demand management, specific customers, specific market segments, sales force knowledge, advertising and other communications, and so on. However, our purpose here places us between the economist's course-grained and the

TABLE 1
Marketing Actions and Endogenous Growth

Marketing Area	*Action*	*Explanation*
Market orientation	Organizational structure/alignment fostering attention, empathy, sensitivity, responsiveness toward customer groups	Aligns and attunes the firm to an awareness of articulated and unarticulated wants of the market, and hence generally facilities innovation/invention/discovery
Distribution	Logistics, channel management, merchandizing	Facilitates efficient diffusion of specific existing, new, and emerging knowledge to markets, competitors, and noncompetitors via embodied spillovers
Marketing research	Surveys, focus groups, test marketing, observation	Facilitates invention/innovation/discovery by identifying undiscovered needs and applications
Product development	Idea development and screening, economic feasibility testing, customer usability testing	Facilities invention/innovation/discovery by connecting and synchronizing marketing research and R&D
Promotion	Advertising, sales presentations, publicity	Facilitates diffusion of general know-how, methods, and procedures via disembodied spillovers

empiricist/practitioner's fine-grained perspectives. In particular, we explore how marketing activities facilitate G3-type growth by (1) creating useful knowledge (marketing research), (2) helping match useful knowledge created by others to appropriate and/or new uses (new product development and marketing research), and (3) facilitating efficient dispersal of useful knowledge (marketing in general, advertising in particular). Table 1 draws out the linkages between these three areas, specific marketing actions, and economic growth.

Marketing and knowledge creation. At the root of endogenous growth theory is the idea that growth is driven by the creation of useful knowledge. The conventional picture is that of the scientist in the lab, painstakingly inventing, discovering, innovating. Clearly, this is an incomplete view. For example, Guttenberg's moveable type, the capital asset pricing model, spreadsheets, and the development of the Internet do not mesh very well with this picture. Nonetheless, all fit well with the endogenous growth view of what is useful knowledge, in that they all represent potential for rearranging the world's scarce resources into new and more efficient combinations. At a more mundane level, marketing *routinely* produces two broad categories of useful knowledge: (1) knowledge about consumers and consumption and (2) knowledge about competitors and competition. Both of these fall under what Hayek (1945) referred to as "knowledge of the particular circumstances of time and place" (p. 521), and both result from marketing research.

Marketers routinely accumulate knowledge about consumers and consumption, acting "as internal advocates who represent the customer in decisions on what to produce" (Wilkie and Moore 1999:211). Much of this accumulation is in the form of simple elaborations and extensions of what is already known. For example, we may already know that college students drink beer, but marketing research helps us understand which college students, where they live, and what type of beer they drink. This seems to be what Hunt (1997a) referred to when he suggested that innovation occurs when the firm's "market research identifies a previously unserved market segment and tailors a market offering for it" (p. 435). While this type of knowledge increases the efficiency of transactions, resulting in G1-type growth (market share shifting), it probably does not qualify as useful in the endogenous (G3-type) growth sense. However, because marketing researchers routinely talk to and observe consumers, they sometimes discover aspects of the customer/product interaction not previously known.

Some proportion of these discoveries will be useful. For example, insight gained from Inuit's "follow-me-home" studies of users of bookkeeping software Quicken and Turbo Tax lead to the transformation of the products from ones used primarily by trained accountants to ones easily usable by nonaccountants (Case 1991). Widespread adoption of these products has led to much greater efficiencies among small business owners and households—qualifying as G3-type pure growth. It should be noted that a frequent short-term consequence of this type of technical progress is industry contraction and loss of jobs. However, the overall benefit to society (less and less in for more and more out) should also be obvious. Not all such useful discoveries are as far-reaching or as obvious. Our point here is that it is routine marketing research that identifies and articulates the useful idea—the gap between need and application. This discussion is summed up as follows:

Proposition 1a: Routine marketing activities facilitate and accelerate G3-type growth by creating useful knowledge about consumers and consumption mainly through marketing research. In the absence of useful knowledge about consumers and consumption, G3-type growth is slower.

In their efforts to think strategically, marketers also accumulate knowledge of competitors and competition. For example, knowledge of competitive market shares, brand

positioning, and prices is routinely gathered. Clearly, much of this will be simple descriptions, with implications for G1- rather than G3-type growth. However, some proportion of it will also be useful in generating endogenous growth. Retailing is particularly rich in producing innovative competitive ideas. Identification and adoption of innovative ideas developed by competitors in areas such as catalogues, direct response, vending machines, specialty stores, strip malls, regional malls, and Internet shopping effectively disseminate the ideas to other competitors. Similarly, strategic marketing models such as the growth share matrix, profit impact of market strategy (PIMS), and the product life cycle represent ideas that may have been useful in the endogenous growth sense. Therefore,

Proposition 1b: Routine marketing activities facilitate and accelerate G3-type growth by creating useful knowledge about competitors and competition mainly through market/competitor research. In the absence of useful knowledge about competitors and competition, G3-type growth is slower.

Marketing and knowledge use matching. Many useful ideas are developed in action, by practitioners. Such knowledge is put to immediate use. Time and experience prove whether it is useful in the endogenous sense. Other knowledge, however, is developed more clinically in the laboratory by scientists, engineers, and R&D people. Often, the fruit of laboratory inquiry is not immediately useful. Indeed, it is not always clear whether it will ever be useful. Frequently, the task of evaluating the usefulness of such knowledge lies in other hands.

In this context, marketing has filled two traditional roles: (1) investigating customer preferences and wants (market analysis), with particular attention to unmet wants, and (2) new product development, sometimes, but not always, with specific customer wants in mind. In this context, the firm's marketing and R&D functions usually work hand in hand to help fashion commercially viable products out of raw innovations. In these twin roles, the marketing function bridges the gap (or "chasm" as Moore and McKenna [2002] put it) between the engineer's laboratory prototype and the customer in a competitive environment. The marketer's task here involves branding, positioning, pricing, and test marketing. In the process, the marketing function becomes critical in vetting the usefulness of new ideas. The vetting process is made more efficient when marketers develop close relationships with customers (Zinkhan 2002). The fact that most new products will fail is indicative of the rigorous nature of the vetting process. While this process is usually viewed from the perspective of the firm, it might also be useful to think of it in terms of the market's aggregate response to an innovation present across a large number of individual products. This discussion is summarized as follows:

Proposition 2: Routine marketing activities facilitate and accelerate G3-type growth by investigating customer needs (market analysis) and matching with raw R&D developments to serve to unmet needs. Without the knowledge matching facilitated by marketing activities, G3-type growth will be slower.

Marketing and efficient knowledge dispersal. If the creation of useful knowledge is the foundation of endogenous growth theory, the dispersal of that knowledge is its capstone. Indeed, without reasonably efficient dispersal, even the most universally useful knowledge is profitless. For this reason, growth theorists refer to ideas about the dispersal of knowledge as "meta-ideas" (Romer 1993). Meta-ideas are to endogenous growth theory what channels of distribution are to marketing. For example, scientific journals and the Internet are meta-ideas because they make possible the distribution of useful knowledge.

However, meta-ideas often do more than simply broadcast knowledge of technological innovations. The task is not limited simply to dissemination but includes the role of balancing the need to stimulate and reward innovation while making the innovation available to as many users as possible, as quickly as possible. Mere dissemination could discourage knowledge creation by undermining ownership and reward incentives. Thus, the patent system is regarded as a meta-idea that addresses this dilemma, because it represents a formula to balance private incentives to create and own useful knowledge with the societal benefit that comes with cheap and wide knowledge dissemination.

A nonintentional knowledge diffusion mechanism that has interested economists is spillover. Spillover has been described in terms of firms acquiring knowledge "created by others without paying for . . . [it] in a market transaction" (Grossman and Helpman 1992:16), as "investments in knowledge creation by one party . . . [inadvertently producing] external benefits . . . [for] other parties" (Jaffe, Trajtenberg, and Fogerty 2000:215), and as "ideas borrowed by research teams of . . . [Firm] *i* from research results of . . . [Firm] *j*" (Griliches 1992:S36).

Four overlapping types of spillovers have been described: (1) MAR spillovers (after *M*arshall [1890] 1920, *A*rrow 1962, and *R*omer 1986), in which economically valuable knowledge is unintentionally transferred between *competing* firms; (2) "Jacobs" spillovers (Jacobs 1969), in which economically valuable knowledge is unintentionally transferred between *noncompeting* firms; (3) "embodied" spillovers (Griliches 1992), in which useful knowledge is unintentionally transferred to those who purchase the firm's equipment, products, and services because the ideas are embedded in them; and (4) "disembodied" spillovers (Griliches 1992), in which general ideas, know-how, and so on are unintentionally transferred

between firms as personal move jobs, relevant news articles are published, and so on.

While specific mechanisms facilitating spillovers have been identified to include (1) technology licensing, (2) proprietary knowledge disclosed in patents, (3) published research and presentations at professional meetings, (4) loose talk and conversation between employees of different firms, (5) employees moving between firms, and (6) reverse engineering (Levin, Klevorick, Nelson, and Winter 1987), a number of scholars also identify the process of spillover more broadly with trade activities in general (e.g., Coe, Helpman, and Hoffmaister 1997; Grossman and Helpman 1991). Their thinking is that trade facilitates unintentional knowledge diffusion because it involves the wholesale transfer of knowledge-embedded equipment, products and services, communications relating to know-how, learning and design, and the potential for reverse engineering and imitation tailored to local market conditions.

In this context, marketing plays a critical role facilitating the unintentional dispersal of useful knowledge in its routine activities of distributing products (i.e., creating place utility; see Zinkhan, Fontenelle, and Balazs, 1999), in development and placement of advertisements, and promotions. Although such activities are mundane, they are critical in bringing new ideas, technologies, and applications to the attention both of competitors and the general public. In this way, marketing activities in general, and advertising in particular, may be viewed as meta-ideas. While the patent system compromises some portion of private ownership rights for the sake of a wider societal benefit, the marketing system has firms routinely compromising proprietary product information by publicly distributing and promoting their products, for the sake of increasing ROI, and market share. Effectively, this means giving competitors full access to many aspects of the firm's proprietary knowledge embedded in the product. Reverse engineering renders this knowledge easily and fully available to any firm willing to invest the resources. In the jargon of endogenous growth theory, "knowledge spillover" takes place. Moreover, firms in noncompeting industries may also scrutinize the knowledge embedded in commercialized products, suggesting applications of the knowledge in different ways, in different products in their own industry. Therefore,

Proposition 3a: Routine marketing activities facilitate and accelerate G3-type growth by dispersing useful knowledge (via promotions communications) to the general public. Without the knowledge dissemination facilitated by traditional promotional activities, G3-type growth will be slower.

Proposition 3b: Routine marketing activities facilitate and accelerate G3-type growth by making proprietary technologies embedded in products easily available to competitors (via public distribution sales). Without the knowledge dispersing by traditional channels of distribution, G3-type growth will be slower.

Proposition 3c: Routine marketing activities facilitate and accelerate G3-type growth by making proprietary technologies embedded in products easily available to noncompeting firms and industries (via spillover effects). Without the knowledge dispersing in the forms of promotional activities, G3-type growth will be slower.

DISCUSSION

The theoretical discussion presented above, arguing the significance of marketing activities in generating (G3-type) market growth, raises a number of important questions for marketing practitioners, scholars, and policy makers. We take up some of these in this section.

Endogenous Growth Theory and Marketing Strategy

Paradoxically, because it may not matter to the firm whether its increase in revenues comes from zero-sum market share shifting (G1-type growth), secular-driven growth (G2-type growth), or from absolute market growth (G3-type growth), the arguments developed here might be construed as strengthening the case for the continued functional boxing of marketing. This position is augmented by the fact that it is not altogether clear which particular marketing actions most favor zero-sum growth or absolute growth in any particular situation. Moreover, because endogenous growth theory places a premium on the knowledge production and effective distribution of useful commercial innovations, firms pursuing endogenous growth too closely may put themselves at risk of having competitors free ride on their efforts (i.e., the "Innovator's Dilemma"; Christensen 2003). In this context, could what is beneficial for society prove disastrous for the individual firm? On the other hand, supposing an industry agrees in principle that pursuing absolute growth is in its collective best interests (thus eliminating free rider problems), how could they pursue that interest without falling into the sins associated with collusion?

These problems are given a fuller context by consideration of four points. First, absolute market growth necessarily produces firm-level growth (but not vice versa). Second, even if we do not know which particular marketing actions will be most conducive to absolute market growth in any particular situation, we do know what these actions are in general (promotion, new product development, marketing research, and product differentiation). Third, regardless of the level of absolute market growth,

the firm that neglects its competitive position in the market will not be around to enjoy it. In this context, zero-sum market share shifting (G1-type growth) probably has an important role in producing absolute market growth (leads to G3-type growth). The argument (derived from Hunt and Morgan's 1995 comparative advantage theory) is as follows. The scramble for market share fosters competitive intensity, product proliferation, and hence innovation, which leads to growth as a side effect. Fourth, endogenous growth theory does not assume cooperation between firms. What it does assume is that innovation be encouraged, and as wide a dissemination of useful knowledge as possible be fostered. Thus, it is probably in society's best interest to handle these issues at the policy level, by developing formulations that encourage both innovation and dissemination, leaving firms to struggle competitively within the policy framework. With innovation encouraged, failure tolerated, and dissemination facilitated, a new "invisible hand" will act to transform zero-sum market share shifting marketing actions into pure market growth.

This argument might be further explored using an institutional theory perspective (Scott 2001). Coercive and normative pressures are common in institutional environments, operating through a network of interconnected relationships. These normative pressures manifest themselves through dyadic interorganizational channels of firm-supplier and firm-customer, as well as through professional, trade, business, and other key business, settings. While an institutional perspective will be particularly useful in understanding endogenous growth in the context of traditional and developing economies, it will also be useful in shedding light on growth in the context of a globalizing world economy, where governments, international organizations, nongovernmental organizations (NGOs), the media, firms, and public opinion compete over interests and visions.

Market Growth Theory and Marketing's Critics

Historically, marketing has two types of critics. The first group argues, regardless of all other considerations, that because marketing is central in the proliferation of products, brands, and advertising, it is morally, socially, and/or environmentally undesirable. Our theory has nothing to say to these critics. The second group of critics argues that marketing is wasteful because it represents resources spent by firms simply to take market share away from other firms (i.e., G1-type zero-sum growth) and that these resources would be more usefully employed in helping the poor. Our research has much to say to this set of critics.

One particular line of this criticism, first articulated by Veblen (1946) and popularized by Galbraith (1971), sees marketing activities as detrimental to pure (G3-type) growth. The argument is that marketing is as a sort of deadweight on the economic system. For example, Veblen (1946) argued that there will always be

> an indefinitely large allowance to be reckoned for work and substance expended on salesmanship, advertising, and competitive management designed to increase sales. This line of expenditure . . . contributes nothing to the output of goods, and in that sense it is to be counted as a necessary deduction from the net productive capacity of the industrial system as it runs. (p. 64)

Similarly (and more influentially), Galbraith (1971) saw marketing as the driver of futile zero-sum games between firms:

> When a firm is enjoying steady patronage by its existing customers and recruiting new ones, the existing sales strategy . . . will usually be considered satisfactory. . . . If sales are stationary or slipping, a change in selling methods, advertising strategy, product design or even the product itself is called for. . . . Sooner or later, a new formula that wins a suitable response is obtained. This brings a countering action by the firms that are then failing to make gains. This process of action and response . . . leads to a rough equilibrium between participating firms. Each may win for a time, but the game is played within a narrow range of such gain or loss. (p. 207)

These views are typical of a pervasive genre of criticism. Paradoxically, they are not dissimilar to the discipline's traditional views of itself—Veblen (1946) and Galbraith (1971) readily concede that marketing is central to competitive interactions between firms. Note, also, that both acknowledge the very critical role of specific marketing tools (sales, advertising, product management, new product development) in these competitive interactions and in gaining and holding market share. Where they part company with marketing's traditional views of itself is in level of analysis and choice of appropriate objective function.

Veblen (1946) and Galbraith (1971) took society as their level of analysis and some measure of social welfare as the appropriate objective function. In this context, they saw marketing as a nonproductive cost in society's welfare equation. Juxtapose these views with those held by marketing, which traditionally begins its analysis at the firm level and below (market, product, brand) and employs some level of performance at that level (return on investment [ROI], sales, market share) as the appropriate objective function. At this level, marketing effort is understood to be efficacious in increasing ROI, sales, and market share. However, the two perspectives are not fundamentally in conflict. Indeed, one might fully agree with both (as indeed Veblen and Galbraith seem to do)—marketing is bad for society (a nonproductive cost) *and* good for

firms (increases market share, ROI, sales). What is less obvious is that both views are incomplete, sharing a similar myopic perspective on the relationship between marketing effort and market growth.

The ideas developed in this article suggest that, on the contrary, far from being a deadweight in the societal welfare equation, marketing is one of the driving engines of pure (G3-type) growth. Indeed, even if one accepts the premise that much of marketing is simply a game of zero-sum market share shifting, it can still be argued that the net result is positive for society. Regardless of the level of absolute market growth, the firm that neglects its competitive position in the market will not be around to enjoy growth. So the firm is forced to engage in zero-sum market share shifting activities. However, doing so fosters competitive intensity, firm and product proliferation, and innovation. The result is that although firms seek market share, they unwittingly promote real market growth.

Implications for Practice and Policy

Despite the fact that marketing often transcends the functional role traditionally accorded it in the three-hierarchies model of corporate-, firm-, and functional-level strategies (Varadarajan and Clark 1994), a number of scholars have noted that marketing's role within the firm is underappreciated and that the influence of marketing's contributions in some areas of academic discourse has been eroded (Day 1992). In this context, the theory presented here is highly suggestive of the need for a new broadening of marketing. In particular, our arguments imply a wider strategic position for marketing actions and perspectives than is commonly accorded.

The arguments presented here, linking G3-type growth to marketing actions, support the work of other marketing strategy researchers who provide theoretical and empirical evidence of endogenous models (cf. Jacobson 1990; Lieberman and Montgomery 1988; Moore, Boulding, and Goodstein 1991). At the same time, the study bolsters the work of resource-based theorists (Bharadwaj, Varadarajan, and Fahy 1993; Day and Wensley 1988; Hunt 2000; Hunt and Morgan 1995) in that it supports the view that human capital and creativity are central drivers of organizational performance.

Moreover, although structural and exogenous explanations of business phenomena have dominated the marketing strategy literature, a growing number of research efforts recognize the role firm-specific actions play in explaining performance (cf. Hansen and Wernerfelt 1989; Narver and Slater 1990). Our study adds its voice here: while acknowledging the critical role exogenous factors play in shaping organizations, we nevertheless concur that firms have more control in shaping their destinies than has hitherto been recognized and that marketing actions per se play an important role in driving market growth.

Although Day's (1992) concerns over other functions and disciplines "actively eroding the influence of marketing in the strategy dialogue" (p. 323) may be seen as reflecting an ongoing trend toward a diminution of the role of marketing, we suggest that marketing has important and enduring contributions to other disciplines.

At the business and corporate levels, our study suggests two challenges. First, including marketing perspectives more centrally in the strategic process, as early as possible, would allow firm- and corporate-level decision makers to stimulate knowledge production in the most comprehensive way, especially marketing knowledge. Second, development of organizational structures suited to stimulate and facilitate efficient flows of competitor and customer information is needed. By forging more comprehensive links between the knowledge production function of marketing and R&D, production, procurement, and the board room, firm- and corporate-level decision makers will be able to leverage that knowledge more effectively because more people will be exposed to it in more areas of the firm, increasing the likelihood of in-house innovation, discovery, and invention. Indeed, the intelligent pursuit of endogenous growth at firm and corporate levels offers an alternative to direct market share struggles. However, this poses a new kind of strategic problem—the competition among firms to grab as much of the absolute industry growth as possible.

At the policy level, the implications of our arguments are intriguing and probably controversial. We have argued that marketing activity stimulates G3-type growth. One corollary to this is that government policies aimed at stimulating a broad range of marketing activities could have a decisive effect on the health of an economy. We began this article with the bold words of Peter Drucker (1958) that "marketing . . . by itself [can] . . . go far toward changing the entire economic tone of [underdeveloped economies] . . . without any change in methods of production, distribution of population, or of income" (p. 255), and we believe we have come full circle to confirm his insight. Although (as acknowledged earlier) we draw back from the more ambitious views of growth theorists (e.g., that growth may be unlimited because "knowledge will never reach a level where its marginal product is no longer worth the trouble it takes to do research" [Romer 1986:1020]), we do believe the arguments presented here have important policy implications. For example, the policy role of marketing has historically been limited to advising government departments such as the Food and Drug Administration (e.g., on the social implications of advertising) and the Census Bureau (e.g., on methodological issues). Our study suggests a wider policy role for marketing. For example, it is difficult to imagine a legislative initiative aimed at stimulating the production and dissemination of useful commercial knowledge that would not benefit from the insights of marketing research, advertising, and

diffusion scholars. The controversy lies in how marketing's critics view marketing.

Directions for Future Research

This study provides a preliminary sketch of the relationship between marketing and G3-type growth. Although our focus has been on marketing's contributions to economic growth, we acknowledge the arguments developed here could be modified to address the roles of engineering, management, finance, design, and other organizational contributions to economic growth. In other words, we are not contending that marketing is the only issue in economic growth, nor even the most important, only that it is an important factor.

The ideas presented here will benefit from a number of specific future research efforts. First, work is needed to understand marketing's role in the diffusion of useful knowledge. While there is considerable research on the use and diffusion of marketing-related knowledge within the firm (e.g., Maltz and Kohli 1996; Menon and Varadarajan 1992), we know relatively little about the effects of marketing-related knowledge outside the firm, especially as it relates to G3-type growth. A number of questions emerge: which type of marketing communication (advertising, public relations, sales promotion, sales presentations) best facilitates knowledge diffusion and growth? Under what conditions? What effects do advertising clutter and media fragmentation have on the diffusion of useful knowledge?

Second, while we have focused here on how marketing efforts lead to G3-type growth, it is very likely that some marketing actions/behaviors will, in fact, inhibit growth. For example, industry-level advertising, R&D and research budgets, slow and lengthy new product cycles, and tardy product deletion norms are likely to affect growth negatively. Moreover, an industry norm tending to risk aversion and slow adoption of new marketing methods, ideas, and practices is also likely to affect growth negatively. A number of specific questions emerge. Do some industries inhibit G3-type growth because of their marketing practices? If so, which? Under what conditions? Cross-industry studies comparing marketing practices, with a view to evaluating their impact on growth, should be very revealing.

Finally, cross-national studies evaluating and comparing marketing activities, at national and industry levels, in the context of differing political systems, economic regimes, cultures, levels of development, and growth trajectories, may be helpful in illuminating a wide variety of marketing-related economic growth phenomena. Such studies will be of particular interest to policy and development scholars. A number of specific questions emerge: What is the overall impact of marketing on economic growth? Which types of marketing activities are most conducive to economic development? How, and under what conditions do marketing activities inhibit development? Are there systematic differences in emphasis among marketing mix variables, across levels of development? Which of the variables (or combinations of them) has the greatest impact on growth? How might policy makers leverage such knowledge? How would such policy leveraging (presumably through a mix of tax incentives and legislation) affect the instrumental (i.e., marketing management and revenue-generating) role of marketing?

We have argued a nontrivial role for marketing in explaining market growth. Responding to the above questions will require marketing scholars to range far beyond the discipline's traditional boundaries in order to bring back useful answers. However, such efforts will be rewarding to the discipline, both for the intrinsic value increased knowledge brings and the possibility of increasing marketing's importance to other disciplines, to board room decision makers, and to policy makers.

REFERENCES

Aaker, David and George S. Day. 1986. "The Perils of High-Growth Markets." *Strategic Management Journal* 7 (5): 409-421.

Arrow, Kenneth J. 1962. "The Economic Implications of Learning by Doing." *Review of Economic Studies* 29 (June): 155-173.

Barro, Robert. 1991. "Economic Growth in a Cross Section of Countries." *Quarterly Journal of Economics* 106 (May): 407-443.

Bass, Frank M. 1969. "A New Product Growth Model for Consumer Durables." *Management Science* 15 (4): 216-27.

———, Trichy V. Krishnan, and Dipak C. Jain. 1994. "Why the Bass Model Fits Without Decision Variables." *Marketing Science* 13 (3): 203-223.

Bell, David E., Ralph L Keeney, and John D. Little. 1975. "A Market Share Theorem." *Journal of Marketing Research* 12 (2): 136-141.

Bharadwaj, Sundar G., P. Rajan Varadarajan, and John Fahy. 1993. "Sustainable Competitive Advantage in Service Industries: A Conceptual Model and Research Propositions." *Journal of Marketing* 57 (October): 83-99.

Bourgeois, J. C. and J. G. Barnes. 1979. "Does Advertising Increase Alcohol Consumption?" *Journal of Advertising Research* 19 (4): 19-29.

Case, John. 1991. "Customer Service: The Last Word." *Inc. Magazine* 13 (4): 88-94.

Chandler, Alfred. 1977. *The Visible Hand.* Cambridge, MA: Harvard University Press.

Christensen, Clayton. 2003. *The Innovators Dilemma.* New York: HarperBusiness.

Coe, David T., Elhanan Helpman, and Alexander W. Hoffmaister. 1997. "North-South R & D Spillovers." *The Economic Journal* 107 (440): 134-149.

Cooper, Lee G. and Masao Nakanishi. 1988. *Market-Share Analysis.* Norwell, MA: Kluwer.

Day, George S. 1992. "Marketing's Contribution to the Strategy Dialogue." *Journal of the Academy of Marketing Science* 20 (4): 323-329.

——— and Robin Wensley. 1988. "Assessing Advantage: A Framework for Diagnosing Competitive Superiority." *Journal of Marketing* 52 (April): 1-20.

Drucker, Peter F. 1958. "Marketing and Economic Development." *Journal of Marketing* 23 (January): 252-259.

Falkenberg, Andreas W. 1996. "Marketing and the Wealth of Firms." *Journal of Macromarketing* 16 (Spring): 4-24.

Franses, P.H. 1991. "Seasonality, Nonstationarity, and the Forecasting of Monthly Time Series." *International Journal of Forecasting* 7:199-208.

Galbraith, John Kenneth. 1971. *The New Industrial State.* 2d ed. Boston: Houghton Mifflin.

Griliches, Z. 1992. "The Search for R&D Spillovers." *Scandinavian Journal of Economics* 94 (Supplement): 29-47.

Grossman, Gene M. and Elhanan Helpman. 1991. "Endogenous Product Cycles." *The Economic Journal* 101 (408): 1214-1229.

——— and ———. 1992. *Innovation and Growth in the Global Economy.* Cambridge, MA: MIT Press.

Hansen, Gary S. and Birger Wernerfelt. 1989. "Determinants of Firm Performance: The Relative Importance of Economic and Organizational Factors." *Strategic Management Journal* 10 (October): 399-411.

Hanssens, D. M. 1980. "Market Response, Competitive Behavior, and Time Series Analysis." *Journal of Marketing Research* 27:470-485.

Hayek, F. A. 1945. "The Use of Knowledge in Society." *The American Economic Review* 35 (4): 519-530.

Hunt, Shelby D. 1995. "The Resource-Advantage Theory of Competition: Toward Explaining Productivity and Economic Growth." *Journal of Management Inquiry* 4 (December): 317-332.

———. 1997a. "Evolutionary Economics, Endogenous Growth Models, and Resource-Advantage Theory." *Eastern Economic Journal* 23 (4): 425-439.

———. 1997b. "Resource-Advantage Theory: An Evolutionary Theory of Competitive Firm Behavior?" *Journal of Economic Issues* 31 (1): 59-77.

———. 1997c. "Resource-Advantage Theory and the Wealth of Nations: Developing the Socio-Economic Research Tradition." *Journal of Socio-Economics* 26 (4): 335-357.

———. 2000. *A General Theory of Competition: Resources, Competences, Productivity, Economic Growth.* Thousand Oaks, CA: Sage.

——— and Robert M. Morgan. 1995. "The Comparative Advantage Theory of Competition." *Journal of Marketing* 59 (April): 1-15.

Jacobs, Jane. 1969. *The Economy of Cities.* New York: Random House.

Jacobson, Robert. 1990. "Unobservable Effects and Business Performance." *Marketing Science* 9 (Winter): 74-85.

Jaffe, Adam B., Manuel Trajtenberg, and Michael S. Fogarty. 2000. "Knowledge Spillovers and Patent Citations: Evidence From a Survey of Inventors." *The American Economic Review* 90 (2): 215-218.

Kotler, Philip. 1984. *Marketing Management: Analysis, Planning, Implementation, and Control.* 5th ed. Englewood Cliffs, NJ: Prentice Hall.

Kurtzman, Joel. 1997. "An Interview With Paul M. Romer." In *Strategy & Business.* Booz, Allen & Hamilton. 1st quarter. Retrieved from http://www.strategy-business.com/thoughtleaders/97110/page1.html

Levin, Richard C., Alvin K. Klevorick, Richard R. Nelson, and Sidney G. Winter. 1987. "Appropriating the Returns From Industrial Research and Development." *Brookings Papers on Economic Activity* 1987 (Special Issue on Microeconomics): 783-831.

Lieberman, Marvin B. and David B. Montgomery. 1988. "First Mover Advantages." *Strategic Management Journal* 9 (Special Issue): 41-58.

Lucas, Robert E., Jr. 1988. "On the Mechanics of Economic Development." *Journal of Monetary Economics* 22 (1): 3-42.

Mahajan, Vijay, Eitan Muller, and Yoram Wind, eds. 2000. *New Product Diffusion.* Boston: Kluwer.

Maltz, Elliot and Ajay K. Kohli. 1996. "Market Intelligence Dissemination Across Functional Boundaries." *Journal of Marketing Research* 33 (February): 47-61.

Marshal, Alfred. [1890] 1920. *Principles of Economics.* 8th ed. London: Macmillan.

Menon, Anil and P. Rajan Varadarajan. 1992. "A Model of Marketing Knowledge Use Within Firms." *Journal of Marketing* 56 (October): 53-71.

Moore, Geoffrey A. and Regis McKenna. 2002. *Crossing the Chasm.* New York: HarperBusiness.

Moore, Michael J., William Boulding, and Ronald C. Goodstein. 1991. "Pioneering and Market Share: Is Entry Time Endogenous and Does it Matter?" *Journal of Marketing Research* 28 (February): 97-104.

Naert, Phillip and Alai Bultez. 1973. "Logically Consistent Market-Share Models." *Journal of Marketing Research* 10 (3): 334-340.

Narver, John C. and Stanley F. Slater. 1990. "The Effect of Marketing Orientation on Business Profitability." *Journal of Marketing*, 54 (October): 20-35.

Palley, Thomas. 1996. "Growth Theory in a Keynesian Mode: Some Keynesian Foundations for New Endogenous Growth Theory." *Journal of Post Keynesian Economics* 19 (1): 113-135.

Romer, Paul. 1986. "Increasing Returns and Long-Run Growth." *Journal of Political Economy* 94:1002-1037.

———. 1993. "Economic Growth." In *The Fortune Encyclopedia of Economics.* Ed. David R. Henderson. New York: Time Warner Books. Retrieved from http://www.econlib.org/library/Enc/EconomicGrowth.html

Schultz, R. L. and D. R. Wittink. 1976. "The Measurement of Industry Advertising Effects." *Journal of Marketing Research* 13:71-75.

Schumpeter, Joseph A. 1934. *The Theory of Economic Development.* Cambridge, MA: Harvard University Press.

Scott, Richard W. 2001. *Institutions and Organizations.* Thousand Oaks, CA: Sage.

Solow, Robert M. 1956. "A Contribution to the Theory of Economic Growth." *Quarterly Journal of Economics* 70:65-94.

Varadarajan, Rajan P., Terry Clark, and William M. Pride. 1992. "Controlling the Uncontrollable: Managing Your Market Environment." *Sloan Management Review* 33 (Winter): 39-47.

——— and Terry Clark. 1994. "Delineating the Scope of Corporate, Business and Marketing Strategy." *Journal of Business Research* 31:93-106.

Veblen, Thorstein. 1946. *The Vested Interests and the Common Man.* New York : Viking Press.

Wilkie, William L. and Elizabeth S. Moore. 1999. "Marketing's Contributions to Society." *Journal of Marketing* 63 (Special Millennium Issue): 198-218.

Zinkhan, George M. 2002. "Relationship Marketing: Theory and Implementation." *Journal of Market Focused Management* 5 (2): 83-89.

———, Suzana de M. Fontenelle, and Anne L. Balazs. 1999. "The Structure of São Paulo Street Markets: Evolving Patterns of Retail Institutions." *Journal of Consumer Affairs* 33 (1): 3-16.

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