

The Emerging Business Economics of Telecommunications

James K. Shaw, Ph.D.

Passage of the Telecommunications Act of 1996 has spurred a vast new flow of capital into telecommunications and its ancillary industries.¹ New capital formations always reveal the future intent of organizations and entrepreneurs, as the private sector seizes upon a conception of unfolding opportunities. The shift from regulated to deregulated industries has inspired a reconfiguration of strategic planning and business development.

For the telecommunications industry, unfolding deregulation prompts contemplation of these unfolding developments:

- The economics of communications convergence.
- Adaptation to new strategies of horizontal and vertical integration.
- Tactical consideration of mergers and acquisitions.
- Investigation of prospective strategic alliances and partnerships.
- Earmarking of future venture capital.
- Likely emergence of a telecommunications Business Opportunity Paradigm.
- The coming importance of tertiary economics.
- Creation of NII (National Information Infrastructure) and III (International Information Infrastructure) business networking.

The Economics of Convergence

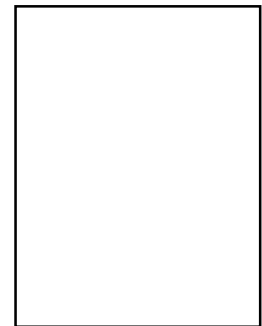
In anticipation of deregulation, telecommunications strategists have adopted the word “convergence” in describing pending

business development. Although this term is often used in several contexts, often confusing the general public as to its meaning, convergence may be defined as *the evolving relationships of the television, telephony, and computer industries*. In other words, the dynamic, continuously-changing evolution of these three innovative enterprises now denotes a major restructuring of both domestic and international commerce.²

The significance of convergence, prompted principally by deregulation coupled with technological advance, lies in the fact that the telecommunications industry will transform itself via these mechanisms:

- (1) Increased merger and acquisition activity, fostering consolidation in both domestic and international markets.
- (2) “Strategic partnering,” in which telecommunications service providers seek favorable agreements with content developers.
- (3) Strategic “alliances,” in which telephony, television, and computer enterprises join in bilateral and multilateral agreements which enhance their value-added capabilities.

The dawn of convergence in the communications industry represents the tangible recognition that no firm can fully participate in all sectors of the industry—transmission services, content generation, value-added enhancements, hardware development—in the absence of acquiring, merging, or cooperating with complementary firms. The



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industry is so vast, and expanding at so rapid a rate, that no enterprise can successfully accommodate consumer demand while relying exclusively on its own resources. In the era preceding divestiture, the enormous size and capital availability of AT&T and other international monopolies would have permitted such a contingency, but today even the largest concerns cannot hope to pursue diversified strategies without complementary support.

It should be stressed that some observers speak of convergence when discussing potential agreements among content providers, refer to cooperative relationships between telephone providers and motion picture studios, emphasize the significance of emerging software development for Internet usage, and so forth. The multiplicity of such developing relationships has muddled a cogent definition of economic convergence. In essence, individuals who apply the term “convergence” in different contexts should define their application of the word with more precision.

Telecommunications Mergers and Acquisitions

A merger may be defined as a combination of two or more firms, the purpose of which is to establish a singular identity for a resultant enterprise. Mergers are often precipitated by a shared vision which holds that:

- Enlarged size results in expanded market share.
- Expanded market share gives the newly defined company greater leverage over its competitors.
- Rising profit margin may result from the transaction.
- Expansive capital availability will permit the firm to innovate at an accelerated rate.

Mergers typically are facilitated by exchanges of stock, or accounting “good-will” techniques, in which the larger partner passively assumes the difference in assets and costs of transaction. Because mergers can be negotiated as tax-free pooling of

assets, stockholders often benefit greatly from such agreements.³

An acquisition is defined simply as the outright purchase of one firm by another.⁴ Multiple motives characteristically surround acquisition decisions. Often, an acquisition is prompted by the desire of one firm to engage in vertical or horizontal acquisition. Strategic planning aimed at these forms of business integration is viewed with suspicion by the Antitrust Division of the Department of Justice.

Vertical integration is defined as the ownership of the networked production or distribution of a product or service.⁵ In essence, a firm chooses to purchase or merge with those enterprises which support its delivery of products or services. If, for example, a fast-food franchise that specializes in the production of pizza elects to buy complementary firms engaged in the production of cheese or tomato sauce, it has designated vertical integration as a strategic course of action. Vertical integration may be expressed as “forward” or “backward.” If the pizza franchise buys a bread company which facilitates the production of its crust, its strategy is supportive and therefore backward; if the same company purchases a frozen-food distributor, its strategy is identified as forward, since the firm now enters a market not otherwise available.

Horizontal integration occurs when a company purchases a competitor in order to broaden and extend its product or service distribution.⁶ General Motors recently purchased Saab, for example, in order to extend its automotive line to other markets. Horizontal integration, as a practical matter, can result in a firm’s greater influence over price, since competition is often effectively reduced. The motive to acquire competitors can also involve enhancing internal expertise by absorbing the most talented employees working within the industry.

A paradox of antitrust application is that the administration which files an antitrust suit is often replaced by one which refuses to prosecute or otherwise allows prosecution to go dormant. Changes in the White House can shift antitrust priorities, thus extending

by a factor of many years final approval of a proposed integration. Clearly, large, capital-intensive telecommunications firms will have to factor this consideration into their long-term strategic planning.

As one reviews the behavior of telecommunications firms immediately before and after the passage of telecommunications reform, a pattern becomes obvious. Many companies have begun or completed negotiations aimed at creating mergers of horizontal or vertical character.⁷ Table 1 is a list of mergers and acquisitions during 1995 and 1996.

Table 1
Major Telecommunications Merger and Acquisitions Activity, 1995-1996

1	British Telecommunications (BT)/MCI	M
2	AT&T/McCaw Cellular	A
3	Bell Atlantic/NYNEX	M
4	SBC/Pacific Telesis	A
5	BellSouth	
6	BCE	
7	Disney/ABC Capital Cities	A
8	WorldCom, Inc./MFS Communications	A
9	GTE	
10	France Telekom	
11	STET (Italy)	
12	Viacom/Paramount	A
13	Cable & Wireless	
14	Microsoft	
15	Sprint	
16	U S WEST Media Group	

A Acquisition (acquirer denoted first)
M Merger

Note: Those firms not denoted with an A or M engaged in more than one acquisition during this period.

Sources: Dow Jones Business News/IEEE Spectrum

Among the major firms completing such negotiations are Bell Atlantic, SBC, British Telecommunications, WorldCom, Hughes Electronics, and Frontier Corporation. Major targets of these takeover attempts include Pacific Telesis, NYNEX, MCI, MFS, U S WEST Media Group, Sprint, and PanAmSat Corporation. As was the case with the aviation, trucking, and natural gas industries, an

emerging wave of merger activity is likely to precede similar developments during the next decade. The objective of this strategic planning is *consolidation*: a tactic aimed at expanding market share, extending industry influence, and securing marketing and other expertise, while expediting entry to new markets.

Whether these transactions will be challenged by the Justice Department remains a matter of considerable conjecture, with billion-dollar firms gambling the vicissitudes of market timing and product introduction. Against this background is the continuing spectre of government involvement at any point. Typically, government action is precipitated by concern over disproportionate market share, or the implicit barriers to entry of firms who cannot compete with the economies of scale enjoyed by merged entities. Nevertheless, many mergers are deemed to be consistent with the public interest, and the Federal Communications Commission had predicted well before passage of telecommunications reform that mergers, in many instances, would be a desirable by-product of deregulation.

It should also be stressed that heightened merger and acquisition activity, quite apart from the continuing debate about the desirability of such market dynamics, in no way assures market success. While many mergers and acquisitions, particularly those cutting across international boundaries, may eventually determine market winners, it can be reasonably inferred that some of these transactions will produce losers as well. Those integrations which do not result in producing telecommunications products or services that the consumer desires are destined to fail.

The historic justification for mergers, despite antitrust concerns, lies in the efficacy of economies of scale: price per unit of a product or service drops as the cost of capital, labor, and technology diminishes. The underlying presumption of a benign merger or acquisition is that the firm can reduce the cost of these three factors of production when its size proportionately

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expands. There are historic examples of a firm's failure to measurably enhance economies of scale through a planned integration. Moreover, through recent advances in software development and inventory management, the cost of producing a good or service at reduced scale is decreasing. In other words, in many industries, it is now possible to produce an item in lower quantity, while approximating the cost advantages associated with higher levels of output.⁸ Economies of scale as the key determinant to competitive pricing are thus eroding. Small, boutique enterprises may emerge as major competitors in all sectors of the telecommunications industry. In sum, we may crystallize the recent proliferation of telecommunications merger/acquisition activity as shown in Table 2.

Horizontal and vertical integration is likely to continue for approximately a decade, market consolidation being the key objective. If the natural gas, aviation, and trucking industries present a reasonable historical guide, the front-end of M/A activity will principally involve major providers and distributors of services; the back-end, final wave of M/A strategy will be aimed at the integration of service and content providers. Whether this scenario comes to dominate

industry performance is a matter of great dispute and contentiousness, as hereafter discussed.

Strategic Partnerships

Rapid technological change promotes an ambiance of unpredictability in today's telecommunications markets. If one reviews telecom forecasts of the past decade—particularly those involving the advent of wireless communications, interactive television, and Internet usage—one is startled by, alternatively, the exaggerated under- and overestimates by industry experts. In retrospect, gross underestimates projected for mobile communications usage stand in contrast to extravagant claims for both wireline and wireless interactive television services.⁹ In both cases, forecasters failed to fully anticipate both advances and inadequacies of emerging technologies and the resultant competition. Changes in consumer preference compounded the difficulty of forecasting unfolding substitutes of emerging technologies for veteran product lines. The glib pronouncements of forecasters, particularly the marketing staffs of telecommunications firms, often give way to the grim intrinsic mystery of household and business consumption.

Table 2
Projected Horizontal and Vertical Integration, 1997-2007

M/A Partners	Service Providers	Content Developers
<i>Front-End (1997-2002)</i>		
Horizontal	Immediate expansion of market share	Access to networks and technical support
Vertical	Procurement of marketing expertise to support sales	Procurement of complementary expertise in emerging markets
<i>Back-End (2002-2007)</i>		
Horizontal	Diminution of competitor market share	Long-term competitive positioning
Vertical	Diversification (global and domestic)	Access to global markets

Source: J. K. Shaw

In this environment, it becomes increasingly evident that *flexibility*, *adaptability*, and *customer responsiveness* dictate the outline of future success. In light of today's market realities, to rely exclusively on mergers and acquisitions to expand market opportunities, impoverishes a firm's range of strategic options. Deregulation has prompted a number of telecommunications companies to seek speedy entry to new markets via supportive alliances: agreements, often temporary in nature, that typically join service providers with content developers to seize upon emerging market trends.

In late 1996, America Online set temporary agreements, for instance, with Netscape and Microsoft to facilitate access to larger consumer markets.¹⁰ These agreements last only as long as the interests of both parties are served, and either party may sever the agreement the moment circumstances warrant.

Rapid response to changes in consumer preference is expedited at minimum financial risk to the firms in partnership. The virtue of a strategic partnership—limited risk—can be a potential pitfall, however. Exceptional long-term opportunities can be forsaken at the whim of either party. Nevertheless, in markets characterized by exponential technological change, this strategic option is a significant component in a company's strategic arsenal. Nimble strategic partnerships remain a key element in swift organizational response to anticipated market opportunities.

Strategic Alliances

For those telecommunications firms that must invest enormous sums to enter new markets, and whose resources cannot permit standard merger/acquisition activity, strategic alliances appear to be an effective alternative. Unlike the limited and temporal character of strategic partnering, alliances afford a long-term "strategic fit": the opportunity to develop a symbiotic relationship in which complementary and supportive expertise and resources enlarge competitive advantage. Such alliances can be formed

between any service or content provider in the computer, television, or telephony industries. Recent strategic alliances have included:

- Bell Atlantic, NYNEX, and Pacific Telesis in the formation of Tele-TV.
- Motorola and Nextel in the creation of a specialized mobile radio network.
- NetTV and Intel in the development of integrated television/personal computer systems.
- WRQ and GTE in the delivery of wireless data.
- OMNI and LiteNet in the formation of a new electronic software distribution network.¹¹

In each instance, we detect a systematic theme: the effort to build an enduring relationship while simultaneously leveraging risk. Put differently, the strategic alliance is characterized by a long-term vision of emerging consumer demand and sustained by tacit admission that a single firm cannot create and maintain that market. The strategic alliance pivots on a shared organizational view that a long-term commitment is required to proactively seize upon market opportunity.

The strategic alliance also serves the pragmatic interests of two or more firms seeking an alternative to the complexities of standard mergers and acquisitions. Strategic alliances generally require greater time to consummate than do strategic partnerships. However, they can be expedited in a fraction of the time necessitated by planned mergers. More important, strategic alliances do not inspire intervention by the Federal Trade Commission or the Antitrust Division of the Department of Justice.

Strategic alliances often originate in cases where equipment providers seek channels of distribution via service providers or, alternatively, in situations where software providers can greatly aid the productivity of either equipment or service providers.¹² Increasingly, the sophisticated development of software now drives the service and content sectors: Enhanced efficiency results

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in lower price, thus inducing greater numbers of consumers and businesses to experiment with new services or upgrade existing ones.¹³ It is therefore reasonable to project that a substantial number of future telecommunications alliances will result from developing relationships between telecommunications providers and the most advanced, incisive software developers.

Telecommunications and Venture Capital

Venture capitalists have come to play a vital role in the development of all high-technology industry in the post-World War II period. Ordinary equity financing—the underwriting and selling of stock—is a comparatively conservative undertaking in the creation of new firms whose prospects are based on high risk. Entrepreneurs lack the time, expertise, and finesse so often associated with deployment of stock. Deployment of capital aimed at bringing young firms to market often remains a viable option in a business world otherwise allowing only equity and debt financing.

The venture capital industry has expanded significantly since the passage of favorable federal legislation in 1978.¹⁴ Reductions in capital gains taxes promoted significant capital diversions to the industry throughout the 1980s. Recognizing the contribution of small business to the expansion of employment opportunities, there exists a growing consensus in Congress that capital gains should be further reduced in this decade.¹⁵ As a practical matter, favorable tax treatment for this form of investment promises substantial financial support for the future of telecommunications development. Provided standard investor criteria are met for the deployment of venture capital—*high rates of return relative to risk, development of state-of-the-art technologies, anticipation of expansive consumer base, and substantial potential profit margins*—there exists a growing pool of funds for telecommunications enterprises. “Venture capital alleys” in Silicon Valley, Houston, Boston, and other key metropolitan areas are exercising growing influence in defining

the future of telephony, computer, and television development.

Inevitably and invariably, venture capitalists provide only seed money in forming start-ups. Initial public offerings (IPOs) are essential mechanisms in generating the capital required to sustain the business 24 months after its birth.¹⁶ For the purposes of this discussion—and in the context of the fast-growing, fast-moving telecommunications industry—note the broad purposes of venture capital management:¹⁷

- (1) *Seed Capital*—Devoted to financing research and development, providing essential supplies, materials, and initial payroll.
- (2) *Working Capital*—Aimed at completing the initial stage of development in addition to determining strategic planning, marketing strategy, sales objectives, and essential overhead.
- (3) *Acquisition Capital*—Applied in those cases in which a start-up must procure the expertise of another firm in order to come to market. In some cases, this means purchasing another small or developing firm on a vertical or horizontal basis that supports the mission of the start-up.

Working capital remains the vital link—and glaring dilemma—confronting the start-up. It is in this stage that a start-up must face its greatest challenge. It is in this stage that a firm often goes to market with its IPO strategy. Significantly, the prevailing winds of the IPO market—which may be characterized as favorable, unfavorable, or stagnant—often dictate success or failure. Spectacularly favorable IPO markets—periods in which investors aggressively sought such speculations—included the late 1970s, mid-1980s, and early to mid-1990s. Decidedly unfavorable eras included much of the 1970s and late 1980s. Thus, investor perception and the general economic climate will be critical variables outside the immediate control of telecommunications firms at any given moment.

Issues in Telecommunications Venture Capital

In designating venture capital deployment for the telecommunications industry, investment firms and individuals are pursuing these concrete goals:

- Desirable rates of return.
- Strategic participation: direct influence over the company mission and long-term strategic planning.
- Equity share percentages, in which specified ownership of the company's assets are identified from the beginning.
- Board positions, in which capitalists may obtain permanent chairs within the firm's Board of Directors.

Collectively, these tactics provide sufficient rationale for the venture capitalist to risk his or her capital. Obviously, the entrepreneur will resist the intrusiveness of these actions, particularly with respect to strategic participation and board positions. The success of the entrepreneur on this level will be a function of persistence and prestige, as well as the allure of the seminal concept.

Among the many critical issues facing both venture capitalists and entrepreneurs in the 1990s are the following:

- Accuracy and persuasiveness of product projections.
- Volatility and unpredictability of technological innovation.
- Dilemmas of product substitution linked to unfolding competition.

Forecasting prospective market trends is exceptionally difficult in an industry as transformational as telecommunications. The dynamics of change, both domestic and international, have often rendered traditional forecasting methods obsolete. The IVDS industry, for instance, had been projected to grow at a spectacular rate by both government and industry analysts; this venture has hardly emerged since its seminal development in 1991.¹⁸ Demand for cellular communications services, on the other hand, has

been consistently underestimated by both government and industry forecasters.¹⁹

Technological innovation in telecommunications has been so spectacular in recent years that some experts estimate that the effective "knowledge half-life" of an electrical engineer is four years. In essence, half of what an engineer learns after graduating becomes obsolete within four years of his professional employment. Within 24 months following commercialization of the World Wide Web, for example, primitive Internet telephony was introduced. Scarcely an expert had anticipated this contingency. Volatility, unpredictability, and instability must somehow be taken into account before large sums of venture capital are channeled to entrepreneurs.

Similarly, venture capitalists are reluctant to commit major sums to product development before they secure credible estimates as to competitive breakthroughs in the market. In other words, entrepreneurs face the intense problem of persuading capitalists to finance their venture at a time when competition is growing increasingly difficult to estimate—the product of exponential change gripping the global marketplace.

Telecommunications Business Opportunity Paradigm

The proliferation of mergers and acquisitions, the dynamics of industry convergence, the move to strategic partnerships and alliances, and the criticality of venture capital financing, collectively, precipitate the design of a Telecommunications Business Opportunity Paradigm (BOP). The complexity of evolving technological innovation fused with insatiable demand for productive, efficient communication impels a model of industrial development.

Strategic planners can no longer afford to develop a telecommunications product or service in isolation, presuming that a sound product will find its niche merely on its own merits. Three key issues automatically confront telecommunications firms when contemplating the impact of their product on the market—as well as the market's influ-

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ence on the future development of that product.

First, when a new product captures a customer base in excess of 10% of the market, competition sets in.²⁰ Success breeds imitation and product substitution. Second, the creation of a successful new product will stimulate tertiary consequences that will result in the development of support services. Third, larger firms will overtly seek to preempt or buy out the successful creator. All three contingencies are central facts that guide the development and evolution of telecommunications firms.

In seeking to synthesize these three themes and connect them to the realities of a predatory marketplace, it becomes incumbent for entrepreneurs and established firms to design a model that anticipates the effect of its own products on future customer demand. In short, the telecommunications provider must ask and answer these enduring questions:

- (1) If we introduce Product X, and succeed in capturing significant market share, how will our competition respond? Is our product so uniquely conceived that it cannot be immediately imitated? If it can be replicated, how much time do we have before our competitors bring to market effective substitutes?
- (2) In designing this product, have we created the demand for new firms that will support the sales, maintenance, and efficacy of the product? Simply, will unfolding business opportunities emerge from the creation of Product X, and, if so, should we pursue these secondary opportunities as well?
- (3) In bringing Product X to market, do we invite the predatory instincts of our largest rivals? If we succeed, will the competition usurp our market through cost-effective pricing, manipulation of distribution channels, or any other tactic? Would we be prepared, and would we have the resources to mount a legal challenge to any questionable antitrust

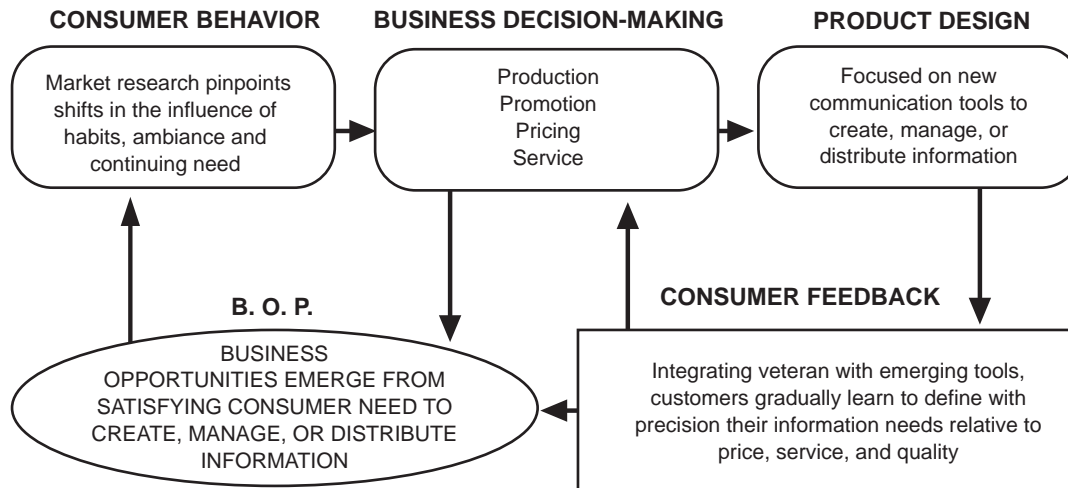
practice in pricing, distribution, marketing, or intellectual property infringement?

Abundant evidence exists to confirm that these three interconnected issues often confront the successful telecom firm—emerging or veteran. These matters are dealt with effectively when they are forecast on the front end of product development. We note the model in Figure 1, an illustration of the Business Opportunity Paradigm, which asserts the developing market impact associated with the introduction of a new product. The dynamics of new product development are such that we may anticipate *customer*, *competitor*, and *industry responsiveness*, adjusted for an appropriate time horizon. One who must forecast the short- and long-term environmental consequences indicative of telecommunications innovation is compelled to do so at a time of turbulence and volatility. If the task were a simple one, a majority of firms would succeed. It is the minority that successfully calculates and anticipates the result of their own actions on the marketplace, and vice versa.

We may infer from the model that the most advanced, sophisticated, and progressive telecommunications firms are beginning to seriously address the long-term market consequences associated with their own actions. Where a firm once sought a quick exploitation of a new product or service, serious thought is now applied to long-term ramifications of new product development and the role it will have in defining the future of the firm.

This phenomenon translates into a simple maxim for telecommunications providers: There is no such thing as a telephone, cable, television, or computer company, per se. Instead, today's telecommunications company is a *creator*, *manager*, or *distributor of information*, and should therefore be willing to pursue any avenue which advances that image and purpose. As time passes, dichotomies between these three functions will evaporate, thus setting the stage for revised strategic design and

Figure 1
Telecommunications Business Opportunity Paradigm



Notes:

Premise—Future telecommunications product/service innovation is driven by customer-led customization; that is, consumers identify with increasing specificity the product applications unique to their own needs. For the first time, consumers are able to exercise influence over production, pricing, and service of new products prior to the application of standard market research techniques.

Assumptions—(1) The use of advanced telecommunications services becomes increasingly habit-forming. (2) The adoption of new services compels associates (friends, family, and professionals) to acquire comparable tools for the purposes of communication. (3) The generation, storage, transmission, and retrieval of information represent “inexhaustible” markets; that is, the growth of information precipitates continuous global expansion for each phase of telecommunications management. Unlike other resources, information cannot be depleted.

Inference—Modern telecommunications corporations define themselves as creators, managers, or distributors of information. Mergers, acquisitions, partnerships, and alliances are the business vehicles by which consumer-led customization is facilitated. Business opportunities emerge from cooperative ventures in which complementary expertise is required to enter and build new markets.

Source: J. K. Shaw

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resultant business opportunities in the next century.

The Coming of Tertiary Economic Analysis

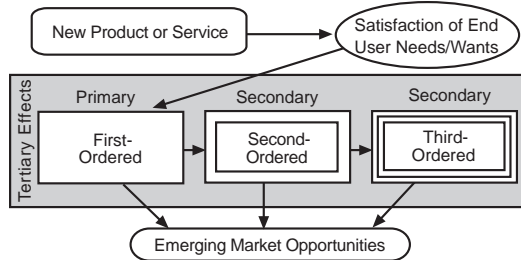
Implicit in the BOP model postulated above is the emerging significance of tertiary economic analysis. Based on the application of systems analysis to economic theory and business development, tertiary economics is a mysterious, nebulous endeavor that nonetheless holds an important key to future profits in the telecommunications industry.

In ordinary business activity, a firm is committed to bringing its product to market, but rarely evaluates the long-term signifi-

cance of present decision making. American business people, by habit and custom, design and market a product, and exploit its profitability until its life-cycle is effectively eroded or ended. However, support industries often emerge inadvertently—occasionally “advertently”—from the dissemination of that good or service. History abounds with new technologies whose implementation resulted in necessary economic undergirding. We note the precipitation of business services for the television, VCR, automobile, and radio industries, as shown in Figure 2.

What surfaces from a consideration of these and other successful technologies is a

Figure 2
The Telecommunications Tertiary Effect



Source: J. K. Shaw

Cultural harmony, characterized by effective cross-cultural understanding and cooperation, facilitates the kind of rapid decision-making that is a part of the competitive landscape.

linkage between *primary*, *secondary*, and *tertiary* effects. In other words, every new technology has a primary impact on its market and the pattern of household and/or business consumption which follows. A secondary consequence of that adoption is typically the maintenance of that product once purchased. Thereafter, third-, fourth-, and fifth-ordered tertiary consequences are evident in the immersion of that product in the economy. These are intriguing consequences because they represent:

- The absence of control or containment by the initiating enterprise, emerging competitor, or government regulator.
- New business opportunities, separated from initial product introduction only in terms of time and place.
- Impending competition, often international in character, that invariably leads to multinational corporate development.

Without question, telecommunications firms—owing to their growing economic influence—have stimulated a debate among strategic planners, economists, and marketers about the relative effectiveness of traditional forecasting measures in facilitating the prediction of future market opportunities. At present, there is no systematic, satisfactory method to fully anticipate the long-term tertiary impact of new telecommunications product introduction. This is not to say that the tertiary effect should be

dismissed or ignored in strategic planning. To the contrary, new techniques are evolving to accommodate a greater understanding of appropriate strategies to exploit these opportunities. Superior telecommunications firms are “deep-thinking” the ramifications of evolving methodology.

The NII and International Business Opportunities

The buildout of the nation’s information infrastructure—wireline and wireless—is being surveyed with great interest by other nations. These perceptions, and their influence in outlining telecommunications development in other regions, form the basis of an emerging synergy that may create an International Information Infrastructure (III). The NII/III confluence, when fully extrapolated, allows for a range of prospective international telecommunications partnerships, mergers, acquisitions, alliances, and entrepreneurial opportunities.

Successful international telecommunications ventures—that is, alliances or mergers integrating telecommunications firms originating in two or more nations—cannot be consummated in the absence of two overriding variables: *cultural harmony* and *managerial compatibility*. These are the variables which typify successful multi-national corporate relationships in other industries. Cultural harmony, characterized by effective cross-cultural understanding and cooperation, facilitates the kind of rapid decision-making that is a part of the competitive landscape. Managerial compatibility, defined as effective organizational communication, is a critical ingredient in setting a mission with supporting strategy, tactics, and goals.

A multitude of driving forces suggests probable international telecommunications alliances and mergers. These may be categorized accordingly:

- Access to new markets with established consumer segments.
- Knowledge of cultural tastes conducive to the growth of market penetration.

- Absorption of technical staff competent to respond to governmental regulation unique to that environment.
- Leverage of capital, labor, and technology required to bring new communications technologies to large markets.
- Competitive access, the compulsion of large American firms to establish market presence, and strategic branding/bundling before domestic competitors rise in response to probable deregulation in that region.


Major telecommunications providers in Europe, Japan, and Latin America are now scrutinizing American international strategic planning in light of telecom reform. Promulgation of U.S. telecommunications deregulation establishes important precedents in the emerging global arena. Governments throughout the world now contemplating communications deregulation look to the American experience in order to ascertain its effect on economic growth and competitive behavior. Clearly, should the American experiment with deregulation enhance economic growth and employment opportunities, governmental adherence to traditional regulatory formats will recede.²¹

Moreover, mounting evidence suggests that European regulatory agencies are concerned that opposition to prospective American telecommunications alliances with that region's providers will result in lost competitive opportunities. Whatever the suspicions may be with respect to unfolding mergers or partnerships, it can hardly be denied that American technology and competitive skill will speed communications services to market. In a world galloping toward heightened competition, a conscious decision by international regulators to prevent such alliances has the practical effect of inhibiting growth in other sectors of their respective economies.

Emerging International Telecom Services

Alliances, mergers, partnerships, and acquisitions may be described as developing in a *parallel* environment: That is, mergers

and acquisitions are likely to be the engine of initial international affiliations of large corporations. We are likely to see intense M/A activity between American and European counterparts through 1998.²² Simultaneous to these relationships are both temporary and permanent alliances drawn between European, American, and Asian small businesses seeking to cultivate consumer markets in database sharing, retailing, banking services, and electronic commerce.²³

Regulatory reform and competitive thrust are stimulating cutting-edge technologies which now enable small businesses to develop business opportunities formerly the domain of multinational corporations. In the closing years of this decade, we are therefore likely to witness the buildout of international infrastructure tightly controlled by alliances connecting telecommunications multinational corporations, with "partnered-boutiqued" firms adroitly seizing niched consumer markets. 

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¹ J. K. Shaw, "Future Scenarios for the Telecom Industry: A Ten-Year Forecast," *New Telecom Quarterly*, Vol. 4, No. 4 (December 1996):25-26.

² D. Pappalardo, "The State of Convergence: Study Reiterates Importance of Killer Apps," *Business Week* (November 25, 1996), Special Insert.

³ P. Argenti, *The Portable MBA Desk Reference* (New York: John Wiley & Sons, 1994), p. 281.

⁴ *Ibid.*, p. 390.

⁵ *Ibid.*, p. 215.

⁶ *Ibid.*

⁷ B. Thatcher and R. McNamara, "How Merger Mania Has Redefined the Communications Landscape," *Telecommunications* (October 1996):42-44.

⁸ A. Toffler, Testimony before U.S. Congress, Subcommittee on Commerce and Telecommunications (February 12, 1996).

⁹ K. Lim, Ed., "The Top Ten Myths of Digital Convergence," *Cybermedia 2001*, Vol. 1, No. 2 (March 1995):1-3.

¹⁰ Public affairs announcements specifying these contingencies were made by AOL in October and November 1996. Steven Case, chairman of AOL, also noted that these agreements were subject to change and dependent on customer responsiveness demonstrated by both Microsoft and Netscape.

¹¹ W. Wood, "Can Telcos Survive," *Telephony* (March 4, 1996):22-29.

¹² C. Pettis, *TechnoBrands* (New York: American Management Association, 1995), pp. 165-200.

¹³ T. Poletti, "America Online Dominates On-Line Service Business," *Reuters News* (August 23, 1996).

¹⁴ W. D. Bygrave, *The Portable MBA in Entrepreneurship* (New York: John Wiley & Sons, 1994), pp. 184-185.

¹⁵ *Ibid.*, pp. 278-317.

¹⁶ During the 1996 presidential campaign, both major candidates and their parties proposed capital gains tax relief. Given the re-election of the Clinton administration, favorable tax treatment for long-term capital gains investments is likely in 1997 or 1998. For capital-intensive industries such as telecommunications, reductions in capital gains tax rates (presently set at 28%) should fuel continued channeling of funds to this growing sector of the economy.

¹⁷ Bygrave, pp. 182-187.

¹⁸ Agenti, pp. 189-190.

¹⁹ M. Mills, "An Interactive Dream Unfulfilled," *Washington Post National Weekly Edition* (July 10-16, 1995):20.

²⁰ Both the FCC and AT&T, forecasting in 1983, estimated that cellular communications technology would never penetrate more than 1% of the consumer market, and would be considered a "luxury market." Also see J. K. Shaw, "Wireless Communications and Technology Substitution: What S-Curves Reveal About Pending Cellular Competition," *New Telecom Quarterly*, Vol. 4, No. 3 (August 1996), for a discussion of underestimation of consumer demand in the wireless arena.

²¹ "SMR and Wireless Cable Scams," Federal Trade Commission Documents (May 1995).

²² *Ibid.*

²³ H. S. Dent, *The Great Boom Ahead* (Westport, CT: Hyperion, 1993), pp. 220-245.