

Changes in Graduate Management Education and New Business School Strategies for the 21st Century

PAUL N. FRIGA
Indiana University

RICHARD A. BETTIS
The University of North Carolina

ROBERT S. SULLIVAN
University of California—San Diego

We examine strategic options for business schools, noting that within the next 10–20 years, major changes in the demand and supply of education are likely. Management educators need to develop careful strategies that consider the drivers of change such as globalization, disruptive technologies, demographic shifts, and deregulation. We compare industry transformations in healthcare, financial services, and the airlines with the developing situation in management education; suggest changes to strategic elements of management education industry, such as its primary markets, products, and partnerships; and discuss the implications of such changes.

"Thirty years from now the big university campuses will be relics. Universities won't survive."
—Peter Drucker (1997)

Given this dire prediction, Peter Drucker has set the stage for discussions on the future of institutions of higher education. Many share this view of universities' impending doom in the 21st century unless drastic changes to their strategies and structures are made to accommodate the needs of a changing world. Business schools, one of the areas of greatest growth in universities over the past 50 years, are not insulated from the pressures for change affecting universities in general. Given the relationship between management education and the business world, market forces such as globalization, technological change, and new workplace requirements may affect business education more than any other branch of academia. And the stakes are huge. Corporations and educa-

tion institutions spend a combined \$2.2 trillion on management education and training worldwide, with nearly \$885 billion invested in the United States alone (Merrill Lynch, 2000). In addition to the financial aspects, business education has tremendous societal impact through the efforts of professionally trained leaders, managers, and specialists.

We identify strategic options for 21st century business schools at the MBA level of analysis. The MBA is by no means the only focus we could have taken. Bachelor's degrees far outnumber MBAs—over two to one (Association to Advance Collegiate Schools of Business, 1999; Statistical Abstract for the United States, 2000). Bachelor's degree education, doctoral education, and executive education programs are all undergoing fundamental and closely related changes in business schools. Similarly, the broader activities of colleges and universities are changing rapidly. For example, undergraduate business degrees have increased from 14% of all undergraduate degrees in 1971 to 19% in 1997. At the MBA level the figures are 11% and 23%, respectively, of masters degrees during the same time period (Statistical Abstract for the

The authors thank Roy Lewicki and two anonymous reviewers for their helpful comments and suggestions on earlier drafts.

United States, 2000). Furthermore, higher education is increasingly expanding beyond the traditional university and college base. As it was necessary to start somewhere, the MBA seemed to be logical place for a first analysis of article length. To focus more broadly seemed daunting, more narrowly in risk of missing too much. MBA programs have attracted considerable societal interest over the last couple of decades and have become, right- or wrongly, the focus of numerous rating systems and huge investment. We hope this article provides a base to build on in understanding the changes taking place across higher education.

We begin by examining the history of management education and business school strategies. Next, we discuss the powerful forces for change that we (and others) believe will transform the way business education is produced and delivered. These same forces caused complete shifts in the value chains of industries with characteristics similar to management education. By analyzing the outcome of other industries' transformations and studying the underlying structure of management education, we hypothesize as to the potential changes in store for the business schools in the new millennium. The article concludes with a proactive strategy link: How could business schools adjust their strategies given the changes in the business school environment?

LOOKING BACK: MANAGEMENT EDUCATION OVER THE PAST 50 YEARS

Our discussion begins with a brief historical review of management education. Our inquiry of the graduate management education industry includes traditional masters of business administration (MBA) programs, as well as part-time MBA

programs, corporate programs, and continuing business education in general. We focus on the role of the business school in this process; the primary population of our study is U.S.-based schools. Although dominant now, over the next decade, U.S. business schools are likely to share the spotlight with strong international schools. In this section, we use the value chain to examine the past 50 years of management education.

Companies achieve competitive advantage through the effective coordination of diverse functional activities. The value chain analysis is a tool designed to evaluate that functional coordination (M. Porter, 1987). It has also proven to be a useful tool in analyzing industries and developing appropriate strategies. The tool is designed to take a macro view of an industry by identifying key processes and value-creating activities. For our purposes here, we use the value chain analysis to understand the dynamics of the overall industry and to derive specific business school strategies. We define the *value chain* for management education as the creation, assimilation, and dissemination of knowledge about business management. The *creation of knowledge* is the development and codification of new ideas related to business management. *Assimilation* is the act of gathering and storing such knowledge for future use. The final component, *distribution*, represents the transfer of knowledge to the practicing and academic worlds by educating individuals and publishing research.

Although the general value chain of business schools has remained relatively unchanged over the past 50 years, business schools have some unique characteristics in their value chains that have molded their strategies over time. Table 1 presents a macro view of the changes in manage-

TABLE 1
Overview of the Management Education Value Chain

	Knowledge		
	Corporate Based (Pre-1950s)	Faculty Based (1950-1999)	Student Based (2000 & Beyond)
Creation	<ul style="list-style-type: none"> • Business lessons • Professionals 	<ul style="list-style-type: none"> • Theoretical/empirical • PhD faculty 	<ul style="list-style-type: none"> • Modular units • Mixed faculty
Assimilation	<ul style="list-style-type: none"> • Limited physical libraries 	<ul style="list-style-type: none"> • Expanded mgmt. books/journals 	<ul style="list-style-type: none"> • Digital libraries
Geographic Distribution	<ul style="list-style-type: none"> • Local 	<ul style="list-style-type: none"> • Regional/national 	<ul style="list-style-type: none"> • Global
	Key Events		
	<ul style="list-style-type: none"> • Ford Foundation • Industrial Revolution 	<ul style="list-style-type: none"> • Media rankings • Electronic databases 	<ul style="list-style-type: none"> • Internet proliferation • Knowledge revolution

ment education's value chain over time, which we will discuss in more detail below.

We begin with a closer look at management education circa 1950. Higher education in business closely resembled undergraduate business training with its very functional and practical approach. This paradigm was fairly consistent since the first MBA program began in 1900 at Dartmouth College's Tuck School of Business. Most business professors were practicing or retired corporate managers who focused primarily on the sharing of lessons learned in the workplace. The United States had approximately 150 business schools at this time, and students generally attended business schools close to where they lived and worked (Schlossman, Sedlak, & Wechsler, 1998), thus making local distribution an important issue. Because the corporations and their current and retired employees contributed so much to setting the MBA agenda, we refer to this period as the "Corporate-Based Era."

A massive reform effort, sponsored largely by the Ford Foundation, took place in 1954. This campaign aimed to make business schools more academic, research based, and analytical—in essence, more like other academic programs at universities (Schmutter, 1998). The Ford Foundation dedicated \$35 million (approximately \$232 million in 2001 dollars¹) to this industrial transformation effort. The strategic program set out specific goals, identified leaders (deans and key faculty), and developed incentive programs to ensure successful implementation. By 1958, the reform effort was well underway and business schools began to shift their strategies to be more research focused and less vocational (Schlossman et al., 1998).

The next round of changes came during the 1970s, under the auspices of the Carnegie Commission. Studies reported a significant need for changes in higher education and signalled a "crisis" situation (Rowley, Lujan, & Dolence, 1998; Wheeler, 1998). The commission's specific concerns included a lack of relevance in the topics under research, overly quantitative course content, and a lack of preparation for entrepreneurial careers (Schlossman et al., 1998). As a result, business schools began modifying their class offerings to include more organizational behavior and teamwork topics, and new entrepreneurial tracks arose. Overall, however, business schools maintained a generally faculty-driven perspective with a focus

on knowledge creation and assimilation. There was little change in distribution methods, and the overall structure of the programs did not change significantly.

After the media first introduced ranking systems for business schools in 1988 (Schmutter, 1998; Segev, Raveh, & Farjoun, 1999), business schools appeared more proactive in making changes, although they focused primarily on product tinkering, packaging, and marketing. The popularity of MBAs rose in the 1980s. Although academic programs were fairly similar, the ranking system pushed business schools to invest much more in tailored marketing programs and to pursue new target markets—especially abroad. The orientation during this period, however, continued to be on the faculty with an emphasis on basic management research. Accordingly, we refer to this era as the "Faculty-Based Era."

Also in 1988, a significant report on the status of management education came out. This report identified a lack of significant changes and business school complacency regarding strategy shifts in the future (Porter & McKibbin, 1988). This large-scale study was based on primary and secondary data gathered from over 60 academic institutions and 50 companies. Although the quality of the MBA students coming out of business schools was found to be acceptable overall, concerns surfaced related to the cooperation of businesses and business schools, integrated curricula, the relevance of research, and soft-skill development. The study was commissioned to examine the future issues for management education, but it did not identify specific recommendations for change. Issues identified as requiring strategic attention included the planning process itself, coordination with businesses, and lifelong learning (Porter & McKibbin, 1988).

In sum, although the strategies and structures of business schools today are fairly similar to those set out in the 1950s, there have been some changes—particularly related to strategic emphasis, marketing objectives, and curriculum. In Table 1, we summarize the key strategic elements of each era, along with some points related to the future. Note that the importance of the underlying components of the value chain may shift over time. Enablers, such as technology, can result in new ways of doing business. Although the creation of knowledge will always be an important mission for business schools, other organizations are developing more formal knowledge management programs and "creating knowledge"; this may cause a shift in strategy as schools become more focused on gathering and sharing, rather than on creating

¹ Calculated using the Federal Reserve Bank of Minneapolis CPI Index Calculator on the Internet: Base year is chained; 1982–1984 = 100; <http://woodrow.mpls.frb.fed.us/economy/calculator/cpihome.html>.

knowledge. Perhaps we will even see an increase in the once popular corporate-based/university-hosted research centers designed to gather and disseminate data on current business trends. It is important to recognize that knowledge creation takes place not only in ivory towers, but also in corporate boardrooms. The key for improvement in the educational value chain is to identify the different options for increasing overall knowledge "production," such as more clearly recognizing respective roles of all parties involved and more effectively coordinating knowledge transfers or "conversations" (Huff, 2000).

We can learn valuable lessons from the historical context and previous change efforts in management education. For example, rather than abandoning progress made in business school processes over the past 50 years and returning completely to the "Corporate-Based Era," we suggest moving to the "Student-Based Era." Business school strategies under this model would be focused on delivering the most important content in the most efficient manner and at the lowest cost. The value chain analysis surfaced some interesting questions. For example, is there an increasing importance of strategies for the distribution of knowledge given the widespread progress made in knowledge assimilation with the aid of electronic databases? Will corporations and other organizations play a larger role in knowledge creation? Will modular education replace traditional MBA programs? Before moving to a discussion on details of new business school strategies, we examine the current environment and the underlying assumptions that may lead to change in the management education landscape.

Perhaps our most disturbing finding was the general absence of concern for, or even expressions of, looming changes in the environment in which business schools will be operating in the next 10–20 years (Porter & McKibbin, 1988: 311).

SIZING UP THE PRESENT: POWERFUL FORCES PUSHING FOR CHANGE

Business schools and their primary product, full-time MBAs, have become extremely popular over the past 50 years; they now constitute over 23% of all graduate degrees granted (Statistical Abstract for the United States, 2000). Consider the growth trajectory of the MBA degree in the United States alone: 5,000 in 1961, 61,000 in 1981, 75,000 in 1992, and over 100,000 in 2000 (Figure 1; AACSB International, 1999; Linden, 1992; Mason, 2000). The MBA

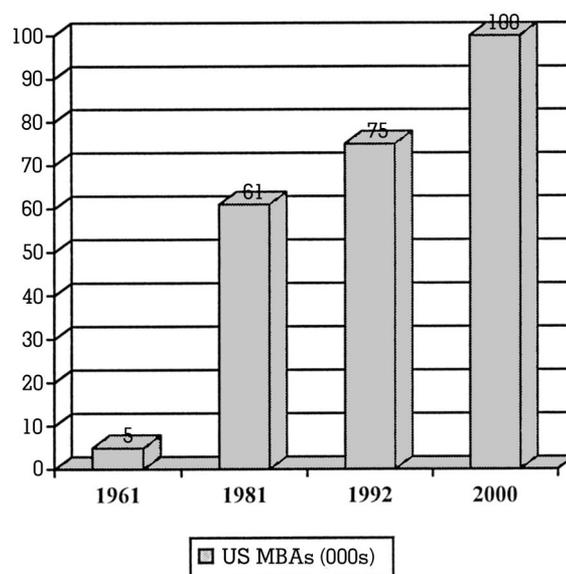


FIGURE 1
Growth in MBA Degrees Awarded in the United States (AACSB International; Linden, 1992; Mason, 2000)

has become the stamp of approval for hundreds of thousands of managers in the United States and abroad and is big business for universities—with over 660 U.S. academic institutions and 183 non-U.S. academic institutions recognized by the Association to Advance Collegiate Schools of Business International (AACSB International, 1999). Of the U.S. academic institutions, 399 are accredited schools, passing extensive reviews by AACSB International, and another 99 are currently under accreditation review (AACSB International Website as of March 2003). These schools offer an important revenue and profit stream for most of their institutions, often operating at a 10–20% positive operating margin (O'Reilly, 1994). In fact, with such positive financial contributions, MBA programs and business schools in general are often cash cows for universities, especially public institutions. Note, however, that there is often a lack of direct benefit to public business schools as they sometimes share their positive cash flow with other, less-funded programs.

As described above, the essence of the full-time MBA program has remained the same for a long time, although there have been certain changes in curriculum (e.g., more behavioral based), process (e.g., team learning), and marketing (e.g., flashy brochures and Websites). Most programs follow the same structure as in the past—especially relating to academic calendars, business function orientation, seat-time, semester courses, and grade point average evaluation (Leavitt, 2000). This

is not to say that our business school education system is without critics who are demanding change. In fact, many of the ailments of higher education in business have been documented in the literature, especially during times of economic downturn. Studies identified many problems; consistent themes include cost (Dulek & Fielden, 1992); research relevance (Mowday, 1997; Wheeler, 1998); and faculty development (Schlossman et al., 1998).

The overall consensus is that change is going to come slowly, if at all, given the massive infrastructure and current incentive programs in place (Oviatt & Miller, 1989). Institutional inertia theory suggests that organizations will be slow to change given internal politics and past success (Hannan & Freeman, 1977). Some deans stress the staying power of academic institutions, witnessed by the fact that of the 26 institutions still surviving since the 15th century, 22 of them are universities (Ives & Jarvenpaa, 1996). Contrary views, however, suggest that this debate is far from over.

The comfortable (in a relative sense) period for higher education and business schools since the end of World War II is likely over. Almost none of the casual practices, procedures, and assumptions about what we should be doing and how we should be providing education are likely to survive in the next couple of decades (Lyman Porter, 2000: 29).

Let's turn to the underlying forces influencing change in the education and other industries. The eighties and nineties in the United States saw overall economic growth and massive changes within and between industries. But what happens in times of economic turmoil and increased pressure for change? The education industry may be one of the only industries not yet subjected to complete value chain overhaul. Even today, news of continued sweeping changes in industries once structured similarly to education in terms of government intervention, scale economies, and public impact dominate the media. Specific industries that have experienced massive change over the past 20 years include healthcare, financial services, and airlines. There are obvious differences between these industries and management education—such as for-profit orientation and the number of competitors; however, there are important similarities between the underlying industrial structure of these industries and management education. For example, each industry just as the academic industry, has benefited from previously monopolistic conditions and advantages due to geography and regulation or certification (Duder-

stadt, 1997–1998). Other common dimensions include service of a common good, redundant cost systems with opportunity for scale economics performance improvement, and previous “cottage” industry orientation with geographic segmentation of the market and local operations. And all of the industries have been through, or are susceptible to, massive transformation.

What is causing such significant changes in once stable and predictable industrial environments? There are four primary forces behind these industrial transformations that will have a similar effect on management education.

1. Globalization. The world is becoming smaller every day. Globalization requires the recognition that today's economy is truly worldwide and that national borders are less important than has historically been the case. Airlines implemented a clear global expansion strategy over the past 2 decades by seeking new international routes and partners. The globalization strategies of business schools have focused on developing high-tech links with non-U.S. business schools, overseas study tours, foreign language requirements, faculty and student exchange programs, and international course material (Mangan, 1997). Other progress includes recruiting higher percentages of foreign students, with most programs hovering around 20–30%. Some niche players have dramatically increased their non-U.S. student populations, such as Thunderbird (the American Graduate School of International Management in Arizona) which has a non-U.S. student population of over 77% (Hankins, 2001). As a whole business schools are in the early stages of *aggressive* international strategies. In sharp contrast to the corporate world where such global expansion strategies have been in place for over 20 years, U.S. business schools, led by the more elite and well-funded programs, have only recently begun experimenting on a large scale with establishing overseas operations. We anticipate much more widespread adoption of global strategies in the future, the details of which will be discussed below.

2. Disruptive technologies. Conventional wisdom holds that economies of scale often lead to dominance in industries by entrenched major players. Clayton Christensen (1997) championed the term *disruptive technology*, which describes a new technology application that leads to a disruption in an industrial value chain. The proposition states that smaller, lower margin companies can go higher end with next-generation technology and better serve existing demand while even creating new market space. Examples of industries experiencing value chain shifting with the disruptive technologies in

parentheses, include steel (minimills), computers (PC), sailing ships (steamships), telegram (telephone), and retail (discounters; Christensen, 1997). Additional examples may include airlines (computerized reservations and e-ticketing), financial services/banking (ATM), healthcare (patient medical cards), and recorded music (CDs). Education is a prime target for disruption given advances in computer technology, communications platforms, and the Internet, which are not currently in widespread use for baseline programs, but are becoming more common by existing universities.

These technologies are core elements of new, often for-profit, educational institutions. The specific technology applications are particularly hard to track and easy to ignore given their intangible nature (Ives & Jarvenpaa, 1996). Duderstadt (1999) raises an interesting observation in his comment on the role of technological change in educational reform: What about the similar impact that was hypothesized with the advent of television and VCRs? As television and VCR technology developed, many believed that widespread adoption would completely alter the traditional models of education delivery. The current situation (Internet and computer-based technology) is even more likely to cause change given advancements made in general connectivity through the Internet, increased transaction speed, and enhanced interactivity. As interactive communication software and other applications continue to develop, basic assumptions regarding education's value chain, specifically the distribution of knowledge, will require reassessment.

3. Demographic shifts. Four key demographic shifts will affect the future of business school education. The first is population growth. The United States and the world continue to grow, and when combined with economic growth and expansion of business, the number of business leadership positions as well as those in need of basic business education will continue to grow as well. We look to the healthcare industry as a source of insight in how it continues to adapt to increased demand based on population growth. For example, rather than just expand the size of hospitals, the goal of much health care reform is more efficient operations and the elimination of poor performance and redundancy.

The second demographic shift is diversity, especially of those individuals requiring business education. The typical student of tomorrow will be quite different from today's student—particularly with regard to age (e.g., older); gender (e.g., more females); race and nationalities (e.g., more diversity; Merrill Lynch, 1999).

Women continue to increase their presence in the business world, but the percentage of women in MBA programs remains only 30% over the past 10 years (Reingold, 2000). The percentage of women studying business as a percentage of all master's programs has risen dramatically over the past 25 years, from 3.9% in 1971 to 38.9% in 1997 (Statistical Abstract of the United States, 2000). Meanwhile, law and medical schools manage a much more balanced student portfolio, with approximately 50% women (Reingold, 2000). Demographers predict that by 2010, the current Caucasian majority in the United States will become a minority (Rowley et al., 1998), yet many schools have not shifted recruiting efforts accordingly.

The third change is a new workplace. Changing business landscapes have resulted in a major shift in job type from manufacturing to service, and technology has begun to automate many previous positions of blue-collar workers. The need for education, especially in business, will continue to grow (Finegold, 1994). The pay gap between those possessing a college degree versus those who do not has risen from 50% in 1980 to over 111% today (Merrill Lynch, 1999). It is estimated that by 2010, 30–40% of all U.S. jobs will require a college level education (Rowley et al., 1998). Corporations have recognized this need and have already begun to make sizable investments in workforce training. In fact, as of 1999, corporations spend more on business education than do all business schools (Huff, 2000).

Finally, there will be an overall shift in the comfort and familiarity with technology in the learning process. The net effect of these changes will be increased demand for service- and knowledge-trained workers, and business schools will play a role in that movement.

4. Deregulation. Although the management education industry is not fully regulated, the government plays a role in oversight through the restrictions it places on publicly generated funds. Public institutions and federally funded research programs face the most government intervention. Privately funded entrants in this industry and pressure from the public may lead to a decrease in government funding and control. Deregulation had dramatic effects in the financial services, airlines, and telecommunications industries. We have included it as a driving force because of the increasing pressure on the government to at least consider this as an option. We are beginning to see experimentation in K–12 education with charter schools and voucher programs and expect the trend for a decrease in public funding for higher education in

many school systems to continue (Duderstadt, 1999).

Accreditation issues become even more important as the rules of the game and its players are changing; the quality of offerings is critical for comparison. AACSB International and the Graduate Management Admission Council (GMAC) have been working diligently to redefine their roles in this ever-changing environment (Finegold, 1994). For example, AACSB's accreditation standards of the mid-to-late part of this century greatly influenced the curriculum development and functional orientation so prevalent in today's business schools. Today, they are adopting more flexible standards and moving away from rigid program specifications—in their own words, "providing global leadership in advancing management education through accreditation and by fostering international interchanges, key business linkages, sharing of best practices, professional development, and other member services" (AACSB Website). The accreditation process allows flexibility in schools' missions, but requires strict adherence to quality planning—a necessity in the increasingly crowded educational landscape.

Now that we have discussed the past and present of management education and identified certain relevant forces that are pushing for change, we apply the lessons learned to the future of management education. Specifically, our goal is to identify ways in which other industries have changed and consider how such changes could play out in graduate management education in the future.

LOOKING FORWARD: MANAGEMENT EDUCATION IN THE 21ST CENTURY

We now discuss the consistent changes in supply and demand of transformed industries and describe their potential application to business schools with illustrative examples where available. This section concludes with our list of critical success factors for business schools in the 21st century.

Changes in Supply

1. Entry of new players. Our starting point in discussing supply issues in management education begins with a common catalyst to industry change: the entry of new players. Industry transformation, especially those transformations complemented with the advent of disruptive technologies, often bring new players into the competitive landscape. For airlines, it was the low-cost regional carriers,

such as Southwest, Midwest Express, and JetBlue, which are growing into national players. Twenty five years ago, Dell and Microsoft were certainly not household names in the computer industry.

New entrants come in search of profits, and with companies paying over an average of \$126,000 for graduates from the top-30 business schools (Merritt, 2000b), the demand is there. A number of new entrants have surfaced in the business of management education, although they are still not seriously considered competitors by some traditional universities, despite their rapid growth, deep pockets, and ambitious goals. Some believe that these new entrants will be the leaders of the transformation, because the current industry leaders will not push for massive change (Davis & Botkin, 1994; Ives & Jarvenpää, 1996). We see five groups of new entrants playing a critical role in the reshaping of business school education: private education firms, technology firms, other major corporations, consulting firms, and non-U.S. business schools.

The number of private education firms has exploded over the past 5–10 years; it is estimated that they now account for \$3.5 billion in training services a year (Blustain, Goldstein, & Lozier, 1999). Several of the private education firms, such as the University of Phoenix and Knowledge Universe, are focusing significant resources on graduate business education (Padilla, 1999; Selingo, 1998). Technology firms, including software, media, computer, and publishing houses are making a play for this market. New companies, such as UNext, can be seen in the *Wall Street Journal* and other periodicals on a regular basis. UNext is a private education firm that provides advanced business education, including MBAs, through a variety of mediums, primarily online. Their strategy involves partnerships with top business schools for content (Columbia, Stanford, Chicago, Carnegie Mellon, and the London School of Economics) and advanced distribution technology-based tools (UNext Website). UNext distributes its content through two electronic companies, Thompson Publishing and Knowledge Universe (Mangan, 2002). Thompson and Knowledge Universe also each own 20% of UNext; the participating business schools own another 20% (Bradshaw, 2001). Consulting firms, such as A.D. Little and McKinsey and Company, have been in the knowledge business for years and are venturing into increasingly more internal and external management training (Moore, 1997). For example, McKinsey has teamed up with Northwestern's Kellogg School of Management and Pennsylvania's Wharton School of Business to create a new business school in India, with an ambitious goal of becoming a top-10 player within 5

years (Dolven, 2000). Corporations have greatly expanded their internal training facilities: Over 1,600 possess formal "corporate universities" that train not only their own employees, but also those from other corporations (Stuart, 1999), which compares with 1,200 U.S. educational institutions (Van de Ven, 2001). Finally, non-U.S. business schools have made dramatic strides in management education and continue to grow at a phenomenal pace. Powerful European business schools, such as INSEAD, IMD, and the London Business School, are establishing global names in management education. Nine of the top-50 business schools in the world ranked by the *Wall Street Journal* were outside the United States (Richter, 2001). European recruiters rank European business schools ahead of United States schools overall, citing cultural, lingual, and immediate impact advantages (Richter, 1999). Another survey ranked 11 non-U.S. schools in the top-30 executive education programs in the world (*Industryweek.com*, 2000). One of the strongest of the 100 or so European schools offering MBA degrees is INSEAD, which recently announced growth in its endowment from \$2.5 million to over \$36.6 million over the past 5 years (Schneider, 2002). In Russia and Eastern Europe, over 1,000 new business schools have sprung up over the past 7 years (Bollag, 1997). In China, there are 21 MBA degree programs run jointly with U.S. partners and 40 run by Chinese universities alone (Roberts, 2002). The Hong Kong University of Science and Technology has surfaced as a major new MBA program provider. These players may have additional power for industrial change as political constraints, legacy systems, and organizational inertia (Davis & Botkin, 1994; Ives & Jarvenpaa, 1996) become less cumbersome.

2. Exit of old players. When supported industries lose their status as monopolies or quasimonopolies, organizational fallout is inevitable, especially if the old system subsidized excess costs (Katz, 1999). This fallout was certainly the case in airlines as TWA, Eastern, and Pan Am all folded after deregulation. Events took a similar turn in the financial services with thrift institutions. The same transformation could happen to educational institutions, but this is, perhaps, one of the hardest propositions to accept, especially given the public service role of universities. There are clearly significant barriers to exit, but once they fall, look for major changes in the landscape of providers. Economic principles plainly dictate that capitalist systems reward efficiency, and competition increases in the presence of profit. It is easy to imagine the excess costs built into our business schools and universities, currently subsidized by government

funding and philanthropy. Three particular areas where costs could be driven down include redundant course development (if basic courses were standardized and offered through the Internet), excess faculty costs (if universities shared resources through distance learning), and unproductive research efforts (if faculty roles were reassigned based on performance to include shifts toward applied research or teaching). Note that the impact of these efforts may result in a decrease in the number of faculty needed, as efficiency increases and student-to-faculty ratios increase. Such changes may be met with resistance by certain faculty members, especially given the power of their unions, the tenure system, and groups such as the American Association of University Professors (AAUP).

The question then becomes "Which institutions will exit?" The answer will likely depend upon a combination of lowest barriers to exit, amount of unique content offering, and adoptability of distance technologies. Most vulnerable will be lesser known schools with outdated technology platforms, although this certainly does not preclude the exit of major research universities that refuse to adapt new strategies. Public subsidizers, who up until now have had few options from which to choose, may largely determine the pace and direction of change. Changes in provider options could result in more pressure for the stepped up exit of old players.

3. Industry consolidation. The recent financial services and healthcare transformations and massive consolidations led to some of the biggest mergers of all time. Consolidation is again a result of the end of certain monopolistic conditions and offers a viable strategy for firms needing additional resources or management capabilities.

Although difficult to imagine, it may be logical for certain business schools to merge, especially if they are particularly synergistic due to market positioning or accumulated resources. An example from another discipline would be the merger between the medical schools of Stanford and the University of California (Rowley et al., 1998). Although the merger was dissolved 2 years later (Jaklevic, 2001), it was perhaps a sign that such experimentation is coming. Stanford has also announced a partnership with Harvard in the delivery of executive education programs that indicates some momentum in this direction. Many alumni, trustees, and students may resist consolidation proposals given loyalty to a particular school, thereby creating a brand-based barrier. Mergers certainly took place in our comparison industries

of airlines, healthcare, and financial institutions and may become an option in education, as well.

4. Interfirm alliances. A more likely shift in strategies is movement toward interbusiness school alliances—especially those of a global nature. Airlines represent the best example of global alliances in that almost every U.S. airline is in alliance with another U.S. airline or a global partner. Alliances have increasingly become a strategic alternative to mergers, because they are more flexible and typically less risky.

Administrators of business schools are spending more time understanding their environment and adopting more interdependent approaches versus the traditional independent philosophy. Many business schools in close proximity allow students to transfer credits and jointly attend classes and events (e.g., MIT and Harvard; the University of North Carolina and Duke). Another example of an interfirm alliance is the Oregon Executive MBA Program, jointly sponsored by the University of Oregon, Oregon State University, and Portland State University. We anticipate that these alliances will dramatically grow in magnitude and formality, a topic we discuss more extensively below.

5. Geographic expansion. In financial institutions, expansion has resulted in the availability of additional branches and ATM locations. Airlines measure expansion by numbers of additional hubs and landing routes. Business schools are likely to follow suit as such geographic expansion offers enhanced brand identification, more revenue, and an opportunity to learn more about foreign markets (Leonhardt, 2000). One mechanism for such expansion will be satellite campuses throughout the world. Harvard Business School established executive education and research centers in Hong Kong, Tokyo, and Singapore (Teo, 1997). Other examples include the opening of satellite campuses by Duke in Frankfurt, the University of Chicago in Spain, and INSEAD in Singapore. On a national level, the University of Southern California established a satellite campus in Orange County, and the University of Pennsylvania created a "Wharton West" in San Francisco. This geographic expansion will allow universities to better compete in the global environment and offer an outstanding application of new technologies through distance learning that will increase productivity of existing faculty by increasing student-to-faculty ratios tremendously.

Changes in Demand

1. Increase in existing markets. Baby Boom II (the children of the near-retirement Baby Boomers) is

likely to continue to produce large numbers of business-minded, twenty-something, ambitious students for traditional business schools. The number of college-age students will rise by an expected 30% over the next 20 years (Duderstadt, 1999). Likely as well is continued growth in numbers of non-U.S. students, who currently constitute up to 20% of many MBA programs, as other countries' demand for U.S.-based business school education increases, and costs of air travel continue to decline. Some business school strategies seem aligned with this anticipated need, given recent investments in new facilities. GMAT testing, often an indicator of future MBA program demand, continues to rise; in the third quarter of 2001, there were 19% more U.S. takers than the previous year and 26% more non-U.S. takers (Alsop, 2001).

The demand for full-time MBA programs seems to follow a countereconomic cycle pattern, as applications to the top-20 business schools were down 7% when other job options were more plentiful in 2000 (Di Meglio & Conlin, 2000). Placement, however, becomes more challenging in tough economic times as evidenced by dramatic drops in recruiting efforts by companies in 2001–2002. The delicate balance and strategic options will be discussed in more detail below.

2. Increase in new markets. This demand shift will cause major changes in strategies for many business schools. Three major opportunities that may eventually outpace demand for the traditional MBA program exist: corporate training, international programs, and modular learning by the general public. A brief description of these programs follows.

Corporate training is estimated to be a \$60 billion market in the United States, \$98 billion if one includes government training (Merrill Lynch, 1999) and has already become a critical part of most major business schools' target markets because it offers lucrative financial rewards, fills excess faculty capacity, and improves relations with the corporate world. These programs, often referred to as executive education, have grown substantially over time and have even assumed separate autonomous standing in some schools.

International opportunities include corporate training, new U.S.-run facilities, and alliances with home universities. Each offers unique challenges, and the primary thrust thus far by U.S. business schools seems to be in corporate training and international alliances.

Modular learning represents a departure from traditional business education. It is primarily conducted online through the Internet or on CD-ROM, and allows students to pick and choose specific

topics and learn at their own pace. Conceivably, packages of these modules could eventually constitute a degree. Modular learning could be viewed as a technological refinement of correspondence courses of the past. Universities have a golden opportunity to provide the content for such programs, and many will partner with technology and marketing firms for assistance in distribution. The demand is estimated to grow dramatically. For example, the number of Internet users in the United States is expected to be more than 206 million in the United States and 765 million worldwide by 2005 (Mason, 2000). By 2002, over 2 million students are expected to enroll in online courses, which is up from 710,000 in 1998, a compound annual growth rate (CAGR) of 33% (Merrill Lynch, 2000). We see continued growth in new markets moving forward.

3. **Specialization.** Industry transformation often leads to increased specialization and segmentation (Collis, 1999). Airlines offer an example of industrial specialization with the split between full-service and no-frills segments; in healthcare the specialization occurred as general hospitals shared markets with specialized clinics and physician groups.

Currently in business education most business schools are "full-service" providers (more general educational offerings and not as specialized). With the potential unbundling of the industry, certain schools may become increasingly specialized, perhaps in academic disciplines or functional areas, and faculty could conceivably form faculty groups that serve multiple universities. Some faculty groups could even specialize further into researchers, content providers, or teachers. Overall, this could lead to a massive segmentation of the management education industry into multiple industries, each with unique requirements and players. The segmentation could occur by function, discipline, company, quality, funding (private vs. public), and end product (such as degree vs. non-degree). One proposition is that schools choose a dominant orientation and pursue appropriate strategies, such as basic research or applied research agendas (L. Porter, 2000). Another approach would be to pursue knowledge exploration through research or knowledge exploitation through instruction, as it is difficult to excel at both simultaneously (Trieschmann, Dennis, Northcraft, & Niemi, 2000). Some examples of specialization include Babson College, a specialty stand-alone business school with a world-renowned reputation in entrepreneurship, and schools offering specialty masters programs in finance (London Business School); electronic commerce (Carnegie Mellon

University); human resources (Rotterdam School of Management); and system design and management (MIT-Sloan; Schneider, 2002).

4. **Price pressure.** In airlines, healthcare, and financial institutions, prices decreased dramatically after the industry transformation. New models of doing business often resulted in increased competitiveness and reallocations of costs.

Given the earlier discussion of the excess costs currently in the educational system, it is reasonable to expect that prices will come down as competition increases, especially if supply increases in line with or faster than demand.² Note that with increased specialization, there will likely be various price points, with some increases in the more exclusive, brand-important sectors.

There is one interesting phenomenon that, while beyond the scope of a thorough analysis here, is worthy of mention. Support for public colleges and universities is declining, while faculty salaries in business schools have been increasing at a substantial rate in recent years. This price-cost squeeze may have significant implications for business schools within public institutions if it continues.

New Critical Success Factors

Based upon the previously described potential changes in supply and demand, corresponding changes in critical success factors should be considered by business school leaders in setting their strategies for the future. We anticipate the following factors to be particularly important in 21st century business school education: *capacity, convenience, geographic reach, and brand.*

The traditional business school strategy amounted to controlling *capacity*, in the belief that exclusivity aids in developing reputation. New economic models could lead to a preference for high volume-low margin versus low volume-high margin strategies, which is more in line with traditional state school strategies. In fact, given the estimated increases in demand on a global basis and the technology advancements to better serve them, business schools will need to rethink their teacher-to-student ratios, which could increase dramatically. This could lead to higher volume capabilities without increases in the faculty cost structure. Public school funding, which traditionally relies

² Anticipated decreases in public funding for education may actually prove to provide pressure against price decreases. Education support peaked in the 1980s and has flattened or declined since (Duderstadt, 1999).

on the student count for allocations, could be greatly affected.

Convenience refers to the increased need for timely business education at a reasonable cost. This implies a shift from "just-in-case" to "just-in-time" and "just-for-me" (Duderstadt, 1999: 4) and can alter distribution methods and student-university relationships, which will become more lifelong rather than periodic. *Geographic reach* relates to the need to serve clients all around the world without necessarily requiring students to travel to the home campus.

Brand will continue to be important, perhaps even more so, as competition increases, product offerings become more like commodities, and business schools seek differentiation and avoid quality erosion. Brand power has increased in the modern age of resources and media communications. It can be established much more quickly and can have significant impact on customer selection—especially in new technological arenas. A prime example of rapid brand development is Amazon.com, which has become one of the most recognized brand names in the world in only 6 years. There is certainly a current level of brand identity in the management education industry, primarily viewed as a "top-20 provider" versus all others (and all others may be split into accredited and nonaccredited although that is not always the case). This brand positioning may change as evidenced by the entrance of a new top-20 provider of management education in a recent *BusinessWeek* survey of corporations, The Center for Creative Leadership, notably not even a university (Reingold, 1999). Brand identity is important, and it can be leveraged or lost depending upon key decisions by institutional leaders as described below.

Putting It All Together: How Do We Get "There" From Here?

After reviewing the history of management education and identifying possible changes in the competitive landscape, we move to the strategy phase. How do business school leaders formulate viable strategies for success in the next century? The first element of the strategy is developing a vision of the end result—setting specific goals for a particular institution. What will the educational providers of the future look like? As you might imagine, there is a void in the literature on this topic; researchers and deans have thoroughly investigated the situation, but many have not formulated or *communicated* their specific goals (much less the detailed strategic plans that will enable them to achieve those goals). This may be partially due to

the uncertain nature of the outcomes of future events and the question as to which of the aforementioned changes may actually come to fruition. We assume that the education industry is not insulated against change and that certain driving forces may eventually push for transformations similar to those experienced in our comparison industries.

What follows below are the three most important elements of business school strategy that will require new thinking for the future: *primary markets*, *products*, and *partnerships*. Included as well are a few of the leading-edge examples of business schools shifting their strategies accordingly.

Primary Markets

The issue of whom business schools actually serve will become increasingly important in the 21st century. Between 1950 and 1980, the traditional market consisted of students for the 2-year MBA program, although the profile of that student changed somewhat over time to include older people, more women, and more international representatives. Over the past 20 years, business schools have greatly increased their desire to serve corporate markets through executive education and specialized part-time programs.

In the future, business schools need to consider where the demand will be, especially in light of the widespread use of new technologies. In addition to new markets including global corporations, other universities, and the general public, business schools need to rethink the repurchase intentions of such buyers, as there is a gradual paradigm shift toward lifelong learning. In addition to serving alumni, business schools should consider offering more products to nonbusiness school students and graduates from other programs in their universities.

Two major developments on the international front offer consideration for business schools, both now and in the future: the collapse of communism and the opening of Asian markets. Both markets are large, together representing close to half the world's population and are in significant need of assistance in developing managerial capabilities. It is estimated that the collapse of communism has resulted in 2.5 billion people being thrust into the modern capitalistic era armed with little knowledge of markets and management (Schmotter, 1998). Currently, only 3% of the 18–21-year-olds in China have access to higher education, and this figure is expected to grow to 20% by 2020, resulting in a demand of 240 million in need of education (Merrill Lynch, 2000). The Asian market for MBA

education will prove critically important, as certain leading business schools have already realized.

Products

We anticipate a fundamental shift in business school product offerings away from traditional MBA programs to more part-time programs and education within corporations and in people's homes. The disruptive technologies of computers and telecommunications (video conferencing and voice-over-Internet) will enable this transition. As diagrammed in Figure 2, four particular programs will gain importance in the business school product portfolio, allowing for varying levels of focus depending upon the respective schools' brand positioning: *executive education*, *corporate degrees*, *the part-time MBA*, and *modular units*. Each has unique requirements; therefore, business schools should weigh estimated returns versus the cost, both financially and as a potential resource distraction. We anticipate a dramatic growth in programs requiring little or no time on campus.

Executive education is defined as program specific, nonaccredited educational sessions and seminars that are often customized to incorporate a particular organization's issues. *Corporate degrees* are advanced, often specialized, programs that are held completely within the confines of an organizing corporation. Typically the program is run in conjunction with a major business school, although examples of programs that are completely run in-house exist, such as A. D. Little,

which has been offering formal accredited educational programs since 1989 (Moore, 1997).

Part-time MBAs are typically weekend or evening programs that extend over 2–4 years during which participants continue in their full-time employment. These programs have grown rapidly; in 2001, *BusinessWeek* ranked the programs for the first time and estimated that such programs bring in more than \$150 million at the top-25 business schools alone (Merritt, 2001a, 2001b). AACSB estimates that over 15,000 students studied in such programs at 160 different U.S. schools in 2000 (Alsop, 2001a). Some schools, such as Harvard and Stanford, resisted entry to this market over concerns of quality, given less-focused contact hours (Alsop, 2001a). Over 5 years ago the Fuqua School of Business at Duke University launched the first global executive MBA program, combining distance and on-site learning over a 19-month period (Celestino, 1999a). However, executive MBA programs do not come without concerns, especially those related to quality of programs, cost, and placement (Dash, 2000). They typically take longer to complete, and cost up to 20% more than full-time programs. Additionally, corporations may cut funding in tough economic times. Nevertheless, executive MBA programs represent a viable and profitable product extension for business schools.

Modular units represent the biggest departure from traditional programs in that they require no time on campus and are typically nonaccredited. They may, however, represent the greatest growth opportunity. These learning modules, which will become increasingly sophisticated with new, interactive, simulation-ready software may eventually lead to accreditation if certain proposals to switch from "seat-time" to "capability" accrediting take hold. This may become the domain of virtual universities, of which over 50 organizations have formally launched offerings or are in the process of so doing (Rowley et al., 1998). Over 48 schools currently offer online MBAs, 28 of which are accredited by AACSB International, which greatly increases the attractiveness of this option (USNews.com). These programs may become the future of MBA education. Enrollment in virtual MBA programs is anticipated to jump to 50,000 by 2002, up from 5,000 in 2000 (Dash, 2000). Intellectual property issues will become increasingly important, and new rules will be established as more programs go virtual.

Just as service centers have become critical links to continued relationships with automobile purchasers, so might the university become important for longer relationships with students. Degrees are the dominant model now, but certification pro-

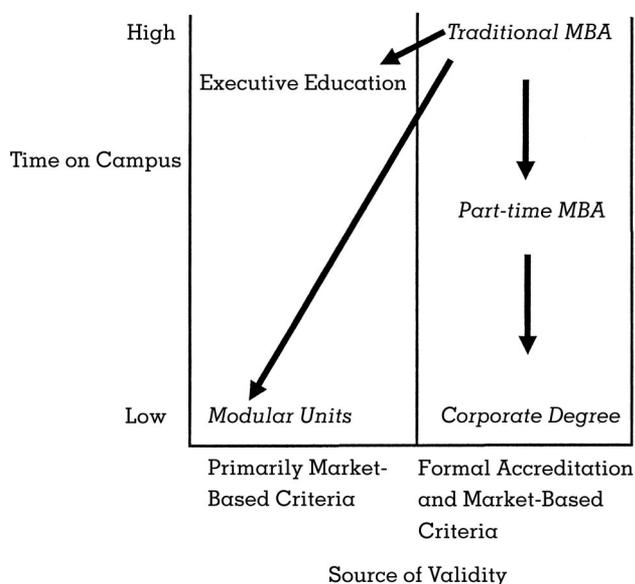


FIGURE 2

Anticipated Shift in Primary Product Offerings by Business Schools

grams may become more important in the future, especially if certain competency-based programs continue to gain momentum. The lifelong education proposition offers opportunities for business schools to establish long-term value propositions with students. A life-cycle-based approach may become more common. One proposed model calls for three separate product offerings: basic management education to students in their late 20s (1 year), leadership and value-oriented developmental education in the late 30s; and meaning-of-life and retirement planning in the late 40s (Boyatzis & Kram, 1999). Such programs could be degree based or certificate driven.

Massive change in infrastructure is difficult, especially in public institutions, and certification programs offer an easier option for change than modifying degree offerings. This experimentation around the traditional core change approach has been used successfully at the University of Michigan, especially with its Millennium Project (Duderstadt, 1999).

Distance learning is becoming much more widespread in business education, so much so that AACSB International recently issued a special report focused on the design and quality issues of such programs (AACSB, 1999). The overall conclusion is that such programs with little or no time on campus are becoming extremely popular, but that they should be handled with care. This is a concern of the largest provider of online MBA and executive education, Henley Management College, which serves over 6,000 students in 100 different countries. Henley works continuously to ensure high-quality delivery through a franchise strategy using standardized procedures and carefully selected content from top faculty throughout the world (Wood, 2001). And, according to Gabriel Hawawini, dean of INSEAD, "The business school of the future will no longer be a place" (Glater, 2001: 3).

Partnerships

Business schools have operated fairly independently since their inception, essentially as a cottage industry focused on geographic physical site-specific offerings. Granted, working relationships with vendors, other universities, and external constituent groups of varying locations have existed, but the core operations have traditionally been left to the schools themselves. We foresee a change on the horizon.

Deans and faculty leaders need to think carefully about formalizing relationships with various value-adding players in this industry. Niche

strategies, whereby an organization identifies its competitive advantage and strategically builds around it through partnerships may become a more common strategy for business schools (Katz, 1999). There are four critical organizational groups with whom universities must establish strong partnerships: technology firms, other universities, major corporations, and community colleges.

Technology firms provide a critical link to the need to develop advanced distance-learning applications. These firms often combine technical expertise in computer networking, software development, and interactive learning with the flash of marketing and packaging and a focus on the distribution component of the value chain. Key examples of technology firm business school alliances include UNext (Columbia, Chicago, Carnegie Mellon, and Stanford) and Caliber (Wharton and Johns Hopkins; Schneider, 1999). Note that large technology firms are also considered corporations but are analyzed separately herein.

Alliances and potential mergers with other universities are a departure from traditional strategy but will be increasingly common in the future for several reasons. First is the critical success factor of geographic reach. Alliances with international business schools allow U.S. schools the opportunity to expand their reach without the significant investment required for new facility construction. Second is the need to understand and play in global markets. And finally, with increased competition and declining resources, certain schools will be forced to squeeze out redundancy from their cost structures and focus on core competencies. This corresponds with the potential industry shift toward increased specialization, as all business schools do not need to offer all programs, especially with the advance of distance learning. These business school partnerships are not limited to dual university domains, and there are additional advantages to multibusiness school arrangements, such as the development of International MBAs.

Table 2 depicts a summary of some examples of the interesting new primary market, product, and partnership strategies under development at this writing. We expect to see much more activity relating to these critical elements of business school strategies.

The final two potential partners remain relatively untapped, but offer logical extensions for business school growth. This could be in the form of backward integration (*corporations* buying business schools); horizontal integration (universities buying other universities or *community colleges*); or just formal alliances. Community colleges offer

TABLE 2
Examples of New Business School Strategies in Action

New Primary Markets
<p>International Expansion</p> <ul style="list-style-type: none"> • University of Chicago establishes new campus locations in Singapore and Barcelona (Celestino, 1999b) • Harvard Business School creates research facilities in Hong Kong and Buenos Aires with plans for Europe (Celestino, 1999) • Northwestern's Kellogg School teams with Wharton in creation of new Indian School of Business in Hyderabad (Karp, 2000) • Carlson School of Management launches a joint EMBA Program with Lingnan College of Zhongshan University in China (Anderson, 2001) <p>Domestic Expansion</p> <ul style="list-style-type: none"> • Wharton offers MBA program for executives in San Francisco, known as "Wharton West" (Glater, 2000) • Harvard Business School opens California Research Center in San Jose (Glater, 2000)
New Products
<p>International MBA</p> <ul style="list-style-type: none"> • OneMBA Program—The University of North Carolina at Chapel Hill teams with four leading business schools across the world to offer a unique executive MBA program on four continents (www.onemba.org) • Duke MBA Global Executive and Cross-Continent Programs—pioneer—(www.fuqua.duke.edu/admin/gemba) • Henley Management College MBA—delivered in over 100 countries (www.henleymc.ac.uk) <p>Custom MBA</p> <ul style="list-style-type: none"> • Indiana University offers custom MBA within General Motors (Weidlich, 2001) • University of Texas offers custom MBA to Texas Instruments (Weidlich, 2001) • Arizona State University offers custom MBA program and other courses to Deere (Weidlich, 2001) <p>Online MBA</p> <ul style="list-style-type: none"> • Top research schools with online MBAs include: Indiana University (www.mbaonline.indiana.edu), University of Florida (www.floridamba.ufl.edu), and Rensselaer Polytechnic Institute (www.rsvp.rpi.edu) • Private education firms with online MBAs include Capella University (www.capellauniversity.edu); Jones International University (http://jiu-web-a.jonesinternational.edu/eprise/main/JIU/home.html); and the University of Phoenix (http://onl.uophx.edu) • See a list of over 48 schools offering online MBA programs (28 accredited by the AACSB) at www.usnews.com/usnews/edu/elearning/directory/gradonline_mba.htm (as of November 2001)
New Partnerships
<p>Business School–Business School</p> <ul style="list-style-type: none"> • Harvard and Stanford merge executive education programs (Merritt, 2001b) • Columbia University and London Business School—joint MBA and non-degree programs (Leonhardt, 2000) • Columbia University and University of California, Berkeley—bicoastal executive MBA program (Alsop, 2001a) • NYU, HEC School of Management and London School of Economics—joint executive education program (Alsop, 2001a) • Wharton and INSEAD—allow students in France and Singapore to study at either school (Glater, 2001) <p>Private Firm–Business School</p> <ul style="list-style-type: none"> • UNext—working with University of Chicago, Columbia, Stanford, Carnegie-Mellon and London School of Economics (McGeehan, 1999) • FT Knowledge (Pearson/Financial Times)—working with Wharton in content creation (Bradshaw, 2001)

Note that this material is presented as of the time of the writing (late 2001/early 2002) and given the dynamic changing environment some of these programs and/or url information may change.

high access to students in need and are already geared toward lifelong learning (Rowley et al., 1998).

There are indeed hurdles that make the implementation of partnerships difficult. Examples include faculty acceptance, governance structures, and the definition of individual partner benefits. Other issues related to equity that must be resolved include profit sharing and overall partnership arrangements.

Business school strategies have multiple options related to partnerships with firms that can add value to the distribution role in the industry, but

they must be strategic about their selection and timing. First mover advantages may affect the selection process, especially if certain players become exclusive.

CONCLUSION

Our primary goal was to present strategic options for business schools going into the 21st century, taking into consideration driving forces pushing for change and the existing structures of business schools. In reviewing the value chain of the graduate management education industry, we identi-

fied the increased importance of distribution strategies over assimilation as we move forward. MIT's recent decision to offer all of its course material to the public accentuates this point, and we continue to have access to top content by way of databases and the Internet (Goldberg, 2001). We identified the forces based upon a review of similar industry transformations (primarily healthcare, financial services, and airlines) and estimated the impact those forces may have on the industry of management education. The key forces were globalization, disruptive technologies, demographic shifts, and deregulation. Shifts in supply and demand were discussed both within our comparison industries and management education. In this regard it is worthwhile to note that the huge growth in demand for MBAs has created opportunities, but may also generate dysfunctional resistance to change. Next we discussed strategy development. We identified and discussed three very important issues that will prove critical in future business school strategies: primary markets, products, and partnerships. Once business schools decide where they want to play, with whom, and what they want to offer, they can begin to design the structure necessary for success in the new millennium. The implementation effort will be heavily influenced by the amount of organizational inertia in the business school. Note also that strategic options vary by segment within the industry. High margin, location-oriented degree schools may adopt different strategies than high volume certification programs, but the future may also include crossovers and unique combinations. In general, we expect greater market segmentation going forward and more specialized offerings.

In assessing strategic options for the future, business school leaders must take into account their institutions' existing structure and ability to change. Some educational leaders and faculty lack full awareness or concern for the potential changes. For example, in a survey of 934 faculty members in 1997, the impact of distance technology on business education was rated as the third-lowest factor of concern out of 26 items (Pearce, 1999). Additionally, the impact of information technology was not listed as one of the key issues in a national conference on the future of higher education (Duderstadt, 1999). Successful organizations often build in structures to discourage change (Hannan & Freeman, 1977) this rigidity, as Rowley et al. (1998: 28) tell us, is not necessarily bad unless it limits creativity. Without some change, however, especially in the critical areas of new markets, products and partnerships, some business schools may face trouble in the years ahead. Exit of play-

ers and consolidation of the market are conditions that have surfaced during similar industrial transformation and may occur here. The timing of the changes is a critical part of this situation—major developments are underway as you read this article.

Overall, massive change forces are in place, and without proper adjustments to strategy and structure, many business schools may fall victim to the more macro dire prediction of universities made by Peter Drucker.

REFERENCES

- AACSB 1999. The International Association for Management Education (now AACSB International—The Association to Advance Collegiate Schools of Business). *Quality Issues in Distance Learning*. (July): Author.
- Alsop, R. 2001a. Your career matters: Business schools expand M.B.A.s for executives. *Wall Street Journal*, (September 11): B1.
- Alsop, R. 2001b. Your career matters: M.B.A. applicants expected to rise. *Wall Street Journal*, (October 16): B1.
- Anderson, L. 2001. News from campus: Five schools in international link. FT.Com—*Financial Times*, (October 29).
- Blustein, H., Goldstein, P., & Lozier, G. 1999. Assessing the competitive landscape. In R. N. Katz and Associates, (Eds.), *Dancing with the devil—Information technology and the new competition in higher education*: 51–72. San Francisco, CA: Jossey-Bass.
- Bollag, B. 1997. Business schools flourish in post-communist eastern Europe. *The Chronicle of Higher Education*, (January 17): A47–A48.
- Boyatzis, R. E., & Kram, K. E. 1999. Reconstructing management education as lifelong learning. *Selections*, 16(1): 17–27.
- Bradshaw, D. 2001. UNext looks for a better blend. *The Financial Times*, (December 24): 10.
- Celestino, M. L. 1999a. Executive education: Business education follows business around the world. *World Trade*, 12(7): 84–85.
- Celestino, M. L. 1999b. Graduate education programs with international vision: How graduate schools are transcending borders. *World Trade*, 12(7): 86–91.
- Christensen, C. M. 1997. *The innovator's dilemma—When new technologies cause great firms to fail*. Boston, MA: Harvard Business School Press.
- Collis, D. 1999. When industries change: Scenarios for higher education. *Forum Futures*: 14–17.
- Dash, E. 2000. The virtual MBA: A work in progress. *BusinessWeek*, (October 2): 96.
- Davis, S., & Botkin, J. 1994. *The monster under the bed*. New York: Touchstone.
- Di Meglio, F., & Conlin, M. 2000. It's not just about MBAs anymore. *BusinessWeek*, (October 2): 92.
- Dolven, B. 2000. Business class. *Far Eastern Economic Review*, 163(6): 48–49.
- Drucker, P. F. 1997. Seeing things as they really are. *Forbes*, 159(5): 122–128.

- Duderstadt, J. J. 1999. Can colleges and universities survive the information age? In R. N. Katz and Associates, (Eds.), *Dancing with the devil—Information technology and the new competition in higher education*: 1–26. San Francisco, CA: Jossey-Bass.
- Duderstadt, J. J. 1997–1998. Transforming the university to serve the digital age. *Cause/Effect*, (Winter): 21.
- Dulek, R. E., & Fielden, J. S. 1992. Why fight the system? The non-choice facing beleaguered business faculties. *Business Horizons*, (September/October): 13–19.
- Finegold, D. L. 1994. International models of management development. *Selections*, 11(1): 16–27.
- Glater, J. D. 2000. Wharton school to start program in San Francisco. *New York Times*, (December 13): 10.
- Glater, J. D. 2001. Wharton forms a European alliance. *New York Times*, (March 29): 4.
- Goldberg, C. 2001. Auditing classes at M.I.T., on the web and free. *New York Times*, (April 4): A1.
- Hankins, M. 2001. Top business schools (a special report)—broken dreams: Foreign students are pouring into U.S. business schools but many recruiters won't even talk to them. *Wall Street Journal*, (April 30): 13.
- Hannan, M. T., & Freeman, J. 1977. The population ecology of organizations. *American Journal of Sociology*, 82(5): 929–964.
- Huff, A. S. 2000. Changes in organizational knowledge production—1999 presidential address. *Academy of Management Review*, 25(2): 288–293.
- Industryweek.com 2000. Knowledge Base, (January 24).
- Ives, B., & Jarvenpaa, S. L. 1996. Will the Internet revolutionize business education and research? *Sloan Management Review*, 37(3): 33–41.
- Karp, J. 2000. McKinsey executive's plan displays rising clout of nation's emigrants. *Wall Street Journal*, (March 23): A19.
- Katz, R. N. 1999. Competitive strategies for higher education in the information age. In R. N. Katz and Associates, (Eds.), *Dancing with the devil—Information technology and the new competition in higher education*: 22–57. San Francisco, CA: Jossey-Bass.
- Leavitt, H. J. 2000. The old business school and the new world: Real trouble ahead? *Selections*, 16(2): 33–34.
- Leonhardt, D. 2000. Top business schools have no borders. *New York Times*, (September 20): C1.
- Linden, D. W. 1992. Another boom ends. *Forbes*, 149(2): 76–85.
- Mangan, K. S. 1997. Business schools promote international focus, but critics see more hype than substance. *The Chronicle of Higher Education*, (September 12): A14.
- Mangan, K. S. 2002. UNext Signs 2 Marketing Deals, *The Chronicle of Higher Education*, (January 25): A32.
- Mason, R. 2000. Sixteen years of selections. *Selections*, 16(2): 26.
- McGeehan, P. 1999. UNext.com, 4 more schools agree to deals. *Wall Street Journal*, (June 23): 1.
- Merrill Lynch & Co. 1999. *The book of knowledge—Investing in the growing education and training industry*. Global Securities Research & Economics Group, Global Fundamental Equity Research Department, April 9.
- Merrill Lynch & Co. 2000. *The knowledge web*. Global Securities Research & Economics Group, Global Fundamental Equity Research Department, May 23.
- Merritt, J. 2000a. Keeping tabs on b-school brainpower. *BusinessWeek*, (October 2): 89.
- Merritt, J. 2000b. The best b-schools. *BusinessWeek*, (October 2): 76–86.
- Merritt, J. 2001a. MBAs for executives—The top 25 schools, *BusinessWeek*, (October 15): 102–106.
- Merritt, J. 2001b. When Harvard met Stanford. *BusinessWeek*, (April 30): 46.
- Moore, T. E. 1997. The corporate university: Transforming management education. *Accounting Horizons*, 11(1): 77–85.
- Mowday, R. T. 1997. Reaffirming our scholarly values. *Academy of Management Review*, 22(2): 335–345.
- O'Reilly, B. 1994. What's killing the business school deans of America? *Fortune*, 130(3): 64–68.
- Oviatt, B. M., & Miller, W. D. 1989. Irrelevance, intransigence, and business professors. *Academy of Management Executive*, 3(4): 304–312.
- Padilla, A. 1999. The University of Phoenix, Inc. *On the Horizon: On-line*, 7(4).
- Pearce, J. A. II. 1999. Faculty survey on business education reform. *Academy of Management Executive*, 13(2): 105–109.
- Porter, L. 2000. Observations on business education. *Selections*, 16(2): 29–30.
- Porter, L. & McKibbin, L. E. 1988. *Management education and development: Drift or thrust in the 21st century?* New York: McGraw-Hill.
- Porter, M. 1987. Competitive advantage. *Harvard Business Review*.
- Reingold, J. 1999. Learning to lead. *BusinessWeek*, (October 18): 76.
- Reingold, J. 2000. It's still a guy thing. *BusinessWeek*, (May 22): 58.
- Richter, K. 1999. European degrees outdo U.S. M.B.A.s in German survey. *Wall Street Journal*, (November 24): B15.
- Richter, K. 2001. Top business schools (a special report)—We are not alone: Among the 50 top-rated business schools, nine are from outside the U.S., *Wall Street Journal*, (April 30): R11.
- Roberts, D., & Li Yan. 2002. To get an MBA is glorious. *BusinessWeek*, (April 22): 14.
- Rowley, D. J., Lujan, H. D., & Dolence, M. G. 1998. *Strategy choices for the Academy—How demand for lifelong learning will re-create higher education*. San Francisco, CA: Jossey-Bass.
- Schlossman, S., Sedlak, M., & Wechsler, H. 1998. The "new look": The Ford Foundation and the revolution in business education. *Selections*, 14(3): 8–27.
- Schmotter, J. W. 1998. An interview with Dean B. Joseph White, *Selections*, 14(2): 22–26.
- Schmotter, J. W. 2000. An assignment for the new century. *Selections*, 16(2): 36–39.
- Schneider, M. 1999. Turning b-school into e-school. *BusinessWeek*, (October 18): 94.
- Schneider, M. 2002. Who needs a whole MBA? *BusinessWeek*, (March 25): 102.
- Segev, E., Raveh, A., & Farjoun, M. 1999. Conceptual maps of the leading MBA Programs in the United States: Core courses,

- concentration areas, and the ranking of the school. *Strategic Management Journal*, 20(6): 549–565.
- Selinger, J. 1998. U. of Phoenix picks New Jersey for its first foray in Eastern U.S. *The Chronicle of Higher Education*, (October 23): 428–430.
- Statistical Abstract of the United States. 2000. U.S. Census Bureau.
- Stuart, A. 1999. Continuing ed. *CIO*, 12(22): 31–38.
- Teo, A. 1997. Developing tomorrow's leaders. *Asian Business*, 33(4): 44–45.
- Trieschmann, J. S., Dennis, A. R., Northcraft, G. B., & Niemi, A. W., Jr. 2000. Serving multiple constituencies in business schools: M.B.A. program versus research performance. *Academy of Management Journal*, 43(6): 1130–1141.
- Van de Ven, A. H. 2002. Strategic directions for the Academy of Management: This academy's for you, 2001 Academy of Management Presidential Address, August 7. *Academy of Management Review*, 27(2): 171–184.
- Weidlich, T. 2001. M.B.A. programs that look a lot like work. *New York Times*, (April 4): C9.
- Wheeler, B. C. 1998. The state of business education: Preparation for the past? *Selections*, 14(2): 19–21.
- Wood, L. 2001. A flexible but solitary option: Distance learning. *Financial Times*, (October 22): 9.

Paul N. Friga completed his PhD and MBA at the Kenan-Flagler Business School at the University of North Carolina, Chapel Hill. Dr. Friga is an assistant professor at the Kelley School of Business, Indiana University in Bloomington, Indiana. He researches knowledge acquisition and transfer at multiple levels of analysis.

Richard A. Bettis holds a PhD from the University of Michigan. Dr. Bettis is currently the Luther H. Hodges Distinguished Professor at the Kenan-Flagler Business School of the University of North Carolina, Chapel Hill. His research interests involve various areas within strategic management.

Robert S. Sullivan, formerly the dean of the Kenan-Flagler Business School at the University of North Carolina, Chapel Hill and the Graduate School of Industrial Administration at Carnegie Mellon University, is currently dean of the new graduate management school at the University of California, San Diego. Dr. Sullivan received his PhD from Pennsylvania State University.

