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Distance Learning: Opportunity or Pitfall?

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INTRODUCTION

Distance learning is far from being a new phenomenon. In fact, distance learning dates back to the late 1800's when correspondence courses were first introduced. Current technology offers many options for delivering and receiving education over geographic distances, and teaching strategies based on computer applications are continuously emerging. Over the years, learning through distance education has become a preferred option for millions of individuals who study and learn at their own pace in a setting of their own choosing, and complete courses and earn degrees while maintaining family and professional responsibilities. Distance education programs currently are being offered by colleges and universities, major corporations, large and small businesses, educational and government agencies, branches of the armed services, trade associations, services industries, and charitable nonprofit organizations.

DISTANCE EDUCATION AS A STRATEGIC OPPORTUNITY

Colleges and universities established to offer traditional campusbound programs are recognizing the opportunities to offer their educational programs to distant students. Educational administrators should decide through analysis whether distance education is an appropriate strategy for their institutions to achieve growth and service objectives. Developing successful distance education programs in the current competitive landscape requires significant investment in highend information technology and exploitation of that technology and investment in developing technology application skills in the institution's human resources.

Evaluating Organizational Capability

Educational institutions, like organizations in other industries, are more successful when they apply strategic planning principles in developing operational goals and objectives.

The fundamental intent of strategic management is to position an organization within its market to exploit organizational competencies and strengths to gain competitive advantage. The basic framework for strategic management includes evaluating external and internal environments, formulating a strategy consistent with the organization's mission and vision, implementing the strategy, and evaluating and controlling the strategy. After decisions have been made regarding broad generalizations about growth, contraction, or stabilization strategies, strategists must focus on specific implementation approaches. Once the general "what" has been determine, the "how" can be considered.

Analyzing the external environment involves understanding how political, social, technological, economic, regulatory, and competitive forces influence the organization. Issues in these domains may present opportunities or threats facing the organization. Internal analysis should examine the strengths and weaknesses of the organization, including financial and human resources. Information gained from analysis of the external environment and assessment of organizational resources and competencies can be organized in a matrix that summarizes an organization's internal strengths and weaknesses and the external opportunities and threats. Quadrant 1, where the organization's strengths align well with external environmental opportunities, directs attention to potentially successful strategies. The organization should consider growth strategies, which would require changes to ex-

isting service lines and associated shifts of resources or new sources of capital.

In quadrant 2, organization capabilities and resources are inadequate to take advantage of identified opportunities consistent with the organization's mission and goals. If the opportunity is perceived as important, the organization must correct the internal deficiencies or allocate resources to build or purchase necessary capabilities if the strategy is to be successful.

The matrix format provides easy visualization to compare strengths with opportunities and threats, and weaknesses with opportunities and threats. Figure 1 shows a partially completed matrix that could assist educational administrators in making a decision to pursue a distance education strategy.

Figure 1: Partial matrix for higher education institution

	1 1 2		
L		Internal Strengths 1	Internal Weaknesses ²
		Existing technology foundation Technical support staff Faculty understand DL pedagogy Capital for technology investment	Faculty lack technology skills Lack of administrative support No technology strategy Inadequate start-up capital
	External Opportunities		
		Future Quadrant – Develop new	Internal Fix-it Quadrant – Enhance
	Available technology	services lines; re-allocate financial	existing services; develop skills and
	Additional job skills needed	resources to new lines	resources needed to pursue
	Most employers require BS	Danaman dation: Danalan	opportunities
	degree; Employer pays tuition	Recommendation: Develop distance learning options	Recommendation:
	Increase in adult students	distance learning options	Allocate resources to correct
	4. Increase in addit stadents		weaknesses before developing
			distance learning options
	External Threats	30	• •
	Stagnant enrollment	External Fix-it Quadrant	Survival Quadrant
	Low unemployment		
	Decreased funding	<i>y</i> =	
	Increased competition		
1	$\alpha(x_{i_1}, \dots, x_{i_m})$		

1 Required to implement distance-learning programs successfully

2 If present, must be corrected to implement distance learning programs successfully

REQUIRED ORGANIZATIONAL COMPETENCIES

Technology can be a powerful force to improve the efficiency and effectiveness of education, but often technology is adopted without a clear focus and without purposeful strategic planning. Administrators must make decisions about which type(s) of distance learning media should be pursued, and assess the organization's capability to set up the infrastructure required to develop, implement, and operate the type of program they choose.

Many institutions believe that distance learning will be a less expensive way of delivering courses and programs, especially with the information technology currently available. However, it must be noted that there may be high initial costs. The financial advantage comes from lower recurrent costs including reduced overhead.

Technology Infrastructure

Knowing how to apply technology in designing and delivering instructional programs for distance learning is critical. Maximum benefit can only be achieved with good planning based on good evaluation of available options. A strategic vision for the completed infrastructure should underlie guidelines and standards for program development by technical staff and professors, and guide purchase and implementation of server platforms, and other tools and technologies employed.

Many existing college and university information systems evolved in response to immediate needs and circumstances. As a result, tools and technologies are often uncoordinated and occasionally incompatible. Creating standards for development in the early stages will create a common infrastructure to maximize resources.

Despite the size of their technological infrastructure, many colleges and universities don't use their technology effectively. Individual departments and programs should design and deploy their own technology; a university-wide technology strategy should be developed. New technology can serve to improve higher education, but it should be used for re-design, not simply to marginally improve its current state.

From the campus side, the technology must be a robust system that can functionally serve thousands of users. Tools and technologies must be based on industry standards and function in a fully crossplatform environment. The system should be browser-neutral and allow access through Netscape or Microsoft Explorer, as well as other generic browsers. It is imperative to understand the technology's strengths and weakness. System administrators must plan for technical failures and ensure user access to technical support. Spending time and effort on planning the technology foundation will ensure a strong system that supports a strong learning environment.

Administrative Infrastructure

The distance-learning infrastructure must also include administrative structure. Planning and system development should include needs, work flow, and cost analyses; determination of necessary policies; user analysis; technical analysis to determine hardware and software requirements; establishing technical standards; resource analysis; course re-design to adapt content to the delivery medium; and planning for testing and debugging.

Faculty Skills

Educators must understand the role of technology, not as a replacement for content needed to teach the discipline's body of knowledge, but as useful tools that complement and aid in transmitting the content of a course. Certain questions should be asked. For example, do all faculty have equivalent knowledge and expertise? Faculty knowledge and expertise extend not only to course content, but also to the overall program mission and goals, and to instructional delivery skills in the required distance education format. Even when institutions commit to providing the technology, varying levels of faculty expertise continues to be an implementation challenge.

Quality should be placed at the center of distance learning programs, just as it should for traditional course offerings. At a minimum, administrators should regularly evaluate compliance with both accreditation requirements and institutional standards regarding curriculum, resources, faculty, student development, and the organization and governance of the program. In addition, student and faculty evaluations of technical performance, and other specific dimensions of the program and the institution as a whole are valid, valuable indicators of distance program quality.

SUMMARY

Despite the achievements that many colleges and universities have made in the higher education industry, the entry into distance learning presents one of the best opportunities and toughest challenges for future success. The March 17, 2000 issue of *The Chronicle of Higher Education* stated that U. S. colleges and universities are upgraded their academic hardware in a \$1.2 billion spending spree in the year 2000 alone, a 28% from 1999 spending as reported by Dun & Bradstreet Corporation. Seventy-two percent of the colleges polled, nearly half of the accredited institutions in the United States, indicated that they would offer a distance-education program beginning in 2001, an increase of almost 50% from 1999 data. Distance learning programs can provide a high quality education, and it is predicted that increased application of technology-based knowledge will generate

increased enrollments in higher education, and possibly even become the "norm" for the future.

With the growing demand for advanced education in the job market, distance education programs provide an attractive alternative to traditional classroom learning more suited to the needs of people's daily lives. With rapid advancements in technology and the everchanging economic environment, lifelong learning becomes essential for individuals and for society as a whole. College enrollment trends predict a steady increase nationally in overall enrollments between now and the year 2009, with the largest percentage of individuals seeking to further their education being employed adults between the ages of 25 and 54. This group requires – and demands – an educational approach sensitive to their specific needs, and distance education programs often can be their preferred alternative.

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