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# BRIDGING THE GAP BETWEEN ACADEMIC RESPONSIBILITIES AND PRACTICAL APPLICATION IN LOGISTICS

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The paper presents a model inspired by the success of innovative logistics programs that have enhanced the relevance of academic programs by developing closer ties with logistics and transportation practitioners. Discussion focuses on examples that illustrate implementation of the model. The intent is to provide a blueprint for academics to enhance cooperation at locations that do not currently have such programs in place.

## INTRODUCTION

A continuing criticism of business education expresses concern that connections between traditional faculty responsibilities of research, teaching, and practice are breaking down (Foggin and Dicer 1992; Mowday 1997; Porter and McKibben 1988). Critics contend that the system is churning out irrelevant academic research and training students to be theoretical managers incapable of taking responsibility for the performance of others (Cheit 1985; La Force and Novelli 1985; Rudolph 1995; Van Auken, Cotton, and Chester 1996). Much of the criticism is directed toward faculty who are depicted as either unable or unwilling to integrate both research and practical teaching.

Changing economic forces have pressured business faculty to perform well in research,

teaching, and practice rather than excelling in just one area (Witt 1994). Many faculty, however, feel that they have either inadequate preparation or insufficient time and funding to contribute in all areas. Logistics faculty, with a history of close ties to industry as well as a fundamental understanding of cross-functional business activities, are uniquely positioned to lead the way in integrating activities on and off campus in a way that satisfies all constituents of higher business education at the lowest total cost.

This paper presents a model inspired by the success of logistics programs that have bridged the gap between academic responsibilities and practical application. It is intended to communicate to practitioners the benefits of interaction with the academic community as well as to present a guideline for academic

integration in other business disciplines. Discussion focuses on three case studies that illustrate the implementation of the model.

## BACKGROUND

A 1996 report completed by the American Assembly of Collegiate Schools of Business (AACSB) contends that the gap between practice and academic research and teaching has widened in recent years. Business schools, critics suggest, are emphasizing a model that is so quantitative and theoretical that it ignores topics important to practical businesspeople (La Force and Novelli 1985; Rudolph 1995). Further, critics argue that the reigning model produces students capable of fulfilling advisory and consulting roles but not that of the practical manager, lacking in leadership qualities and the ability to assume responsibility for the performance of others (Cheit 1985).

The criticism underscores a perceptual gap between many business academicians and practitioners regarding the purpose and scope of knowledge generation. While logistics academicians share a long history of successfully integrating research, teaching, and practice, academicians in many other business areas generate knowledge in a cumulative manner that is less concerned with immediate, focused applications but rather seeks to influence the long-term conduct of broadly defined business processes. Knowledge generation and dissemination are viewed in terms of theory development and testing, evaluated on the basis of content as well as the rigor of the scientific method used to reach conclusions (Mentzer and Kahn 1995). Practitioners, however, generate knowledge to find the answers to specific, applied problems. The results of applied research are usually seen only by those immediately involved with the problem and are evaluated based on the degree

to which they influence decision-making as well as on the success or failure of the resulting decision. Academics, therefore, usually produce work that is relatively abstract and not directly concerned with immediate application while practitioners produce research that provides actionable data at the least possible cost (Brinberg and Hirschman 1986; Kover 1976).

Business schools can be depicted as possessing varying degrees of these two primary orientations of knowledge generation. At research-oriented schools, business is regarded as a science and knowledge is pursued to enhance understanding and theory development. Faculty are rewarded for publishing academic research. Contact with the business community is not assigned high priority and, therefore, is only modestly pursued by most. Other schools emphasize a professional model characterized by field-driven approaches to business and business techniques. Faculty are expected to maintain close ties to the business community and emphasis is placed on participating in privately directed research and executive education (Cheit 1985; Van Auken, Cotton, and Chester 1996). At these institutions, faculty evaluations may be split equally among teaching, research, and service to practitioners.

Economic pressure derived from decreasing enrollments, limited state and federal funding, and escalating tuition costs, however, has fueled and intensified the criticism leveled at business education and increased the attention paid to the activities of business faculty by government, taxpayers, parents, and business practitioners (Mowday 1997). The constituents of business schools are no longer satisfied with excellence in one area of the research, teaching, and practice mix. Therefore, business faculty today are under increasing pressure to perform well in research, teaching, and practice rather than excelling in just one

area. Additionally, there is growing demand to ensure that these activities address topics of relevance to the practitioner community (AACSB 1996; Witt 1994).

Most business school administrators agree that the need for significant shifts in emphasis affects virtually every business program (AACSB 1996). Many programs have made attempts to integrate theory with practice, although, as Arjay Miller, former dean of Stanford Business School noted, getting faculty to change in any manner is "like trying to move a cemetery" (Witt 1994). A blueprint for successful change would be helpful to facilitate the process. In the following section, a model for integrating research, teaching, and practice based upon the experience and successes of logistics programs at top academic institutions will be introduced.

### INTEGRATING ACADEMIC RESPONSIBILITIES

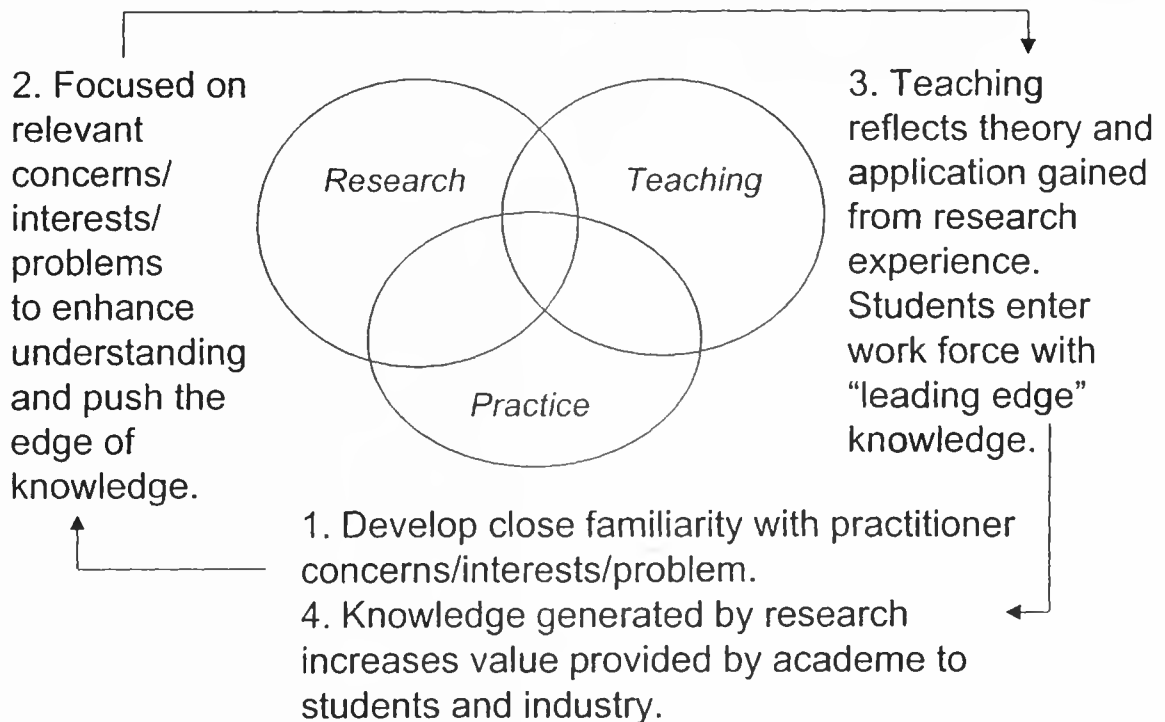
Logistics faculty enjoy a history of close ties to industry as well as a fundamental understanding of cross-functional business activities. Programs developed or under development at several academic institutions demonstrate logisticians' abilities to knock down barriers not only between departments on campus, but also between academics and practitioners. The top logistics programs emphasize research conducted jointly with industry. Many also have strong industry involvement in curriculum development and internship opportunities. Institutions such as Michigan State University, the University of North Florida, The Ohio State University, Pennsylvania State University, the University of Tennessee, The University of Nevada-Reno, and the University of Wisconsin-Madison have pioneered executive education in logistics and supply chain management to provide further links with industry (Aron 1997). While these

relationships offer benefits to faculty and practitioners directly involved in the executive programs, teaching at both the undergraduate and graduate levels is enhanced as a result of interactions between faculty and practitioners. Logistics academicians, therefore, are uniquely positioned to lead the way in integrating activities on and off campus in a way that satisfies all constituents of higher business education at the lowest total cost.

Logistics programs that have demonstrated the capability of business faculty to bridge the gap between sound academic research and practical application share a conceptual similarity. The success of these logistics programs forms the basis for a model that provides guidelines for business faculty behavior in an environment that requires sound performance across research, teaching, and practice. The model can serve as a blueprint for development of projects and curriculum aimed at bridging the gap between academic-oriented and practitioner-oriented activities. It is intended to counter the reluctance that faculty feel regarding involvement in activities that integrate the competing responsibilities of research, teaching, and practice by developing a synergy that optimizes one's time utilization and funding resources. Further, the model can help communicate to practitioners the benefits of interaction with the academic community.

The model presented in Figure 1 shows three primary faculty responsibilities – research, teaching, and practice. All business schools require a level of performance in each of the three overlapping areas. Success in all three areas, however, depends upon solid grounding of academic endeavors in practice. The model begins with faculty developing close familiarity with the concerns, interests, and problems confronted by managers practicing the discipline in an industrial setting. Familiarity

**FIGURE 1**  
**INTEGRATING ACADEMIC RESPONSIBILITIES**



may stem from consulting, executive education, faculty internships, membership in professional organizations, participation in practitioner-oriented conferences and meetings, prior industry experience, and research projects conducted jointly with practitioner groups (Mentzer and Flint 1997).

The expertise and insight gained from familiarity with practitioner concerns, interests, and problems should be used to guide future academic research. Grounding the research in practitioner experience assures the relevance of the research and may assist in generating funding. The academician utilizes training in theory development and the

scientific method to assure that results are reliable, valid, and generalizable (Mentzer and Flint 1997). Data collection can be structured such that results are relevant to—and publishable in—academic journals as well as practitioner-oriented outlets.

Sharing results of relevant research in the classroom provides faculty with an important means for transferring knowledge and experience. Relevant research results have direct application in the classroom, regardless of student level. Both undergraduates and graduate students benefit from direct examples of theoretical concepts applied to the "real world". Instructors that cite current, relevant

force possessing the "leading edge" of knowledge regarding logistics principles and concepts e.g., how leading firms are managing inventory and transportation, what accounting procedures they are using, what enabling technology is making it all possible. Hopefully, they become managers that are aware of the value of higher education and are committed to hiring others from the program. In addition, they leave school with an appreciation for university-industry relationships and become willing to participate in interactive activities such as academic research. This "spiral" effect provides long-term benefits to the all constituents of higher business education.

Over the last 30 years logistics management has grown into a multi-functional, process-oriented discipline that emphasizes innovative concepts that are regarded as critical elements of many academic and practical areas. Conceptual issues that are central to modern business thought such as inter-departmental and interfirm communications, integration, relationalism, responsiveness/agility, and total system cost management are considered key elements of world class logistics management today. Logistics faculty, familiar with these concepts from research and teaching, have taken the lead in pushing change at many top institutions.

## IMPLEMENTATION

Many prominent universities with strong logistics programs, including those listed previously, engage in activities designed to integrate faculty research, teaching, and service responsibilities to generate relevant knowledge. The following examples demonstrate how logistics programs at various institutions have integrated research, teaching, and service to directly benefit faculty, students, and business practitioners.

Michigan State University (MSU) logistics faculty have long demonstrated close relationships with industry colleagues to guide research efforts. The results of these efforts are used in the undergraduate, graduate, and executive education classrooms to enhance teaching. In the latest of these endeavors, the Global Logistics Research Team, consisting of MSU faculty and students as well as an advisory board of industry executives, investigated best logistics practices throughout the world. With substantial financial and administrative support from industry and professional organizations, faculty and doctoral students set out to identify leading edge logistics practices that lead to competitive advantage on a global scale (The Global Logistics Research Team at Michigan State University, 1995). The Global Logistics research built on the foundation established in an earlier study highlighting leading edge practices in North America (Bowersox, Daugherty, Dröge, Rogers, and Wardlow, 1989).

The research benefits practitioners who can use the findings to benchmark their own firms and develop logistics competencies. University students and executive education graduates derive a significant return from the faculty's involvement in the endeavor. Sharing the findings of the research and developing enthusiasm toward future investigations enhances classroom instruction. Students may, upon becoming industry managers, eagerly participate in future research efforts completed by faculty at MSU or elsewhere. In addition, fellow researchers in academia benefit from the contributions to conceptual and practical knowledge yielded from the findings of world class logistics research. Hence, the cycle illustrated in Figure 1 finds application in this setting. The research, however, was possible only through the financial support and guidance provided by industry colleagues as well as through the

participation of survey and interview respondents in the field.

Iowa State University (ISU) is a land-grant institution known for strong programs in agriculture, food engineering and food sciences that support knowledge generation in food systems. The College of Business contributes to that goal by fostering research and teaching in food business. An ISU research team consisting of faculty and students from the Department of Transportation and Logistics received a grant to extend knowledge in food logistics and supply chain management. The resulting efforts have been used to develop and enhance relationships with organizations involved in food distribution. These relationships have fostered food-related research activities, including investigations of other elements of food supply chains as well as internship opportunities for both students and faculty.

To strengthen relationships with industry and professional organizations and to establish a practical basis for research, ISU faculty developed a value chain management simulation based upon industry inputs. The industry involvement in the simulation's development ensures that the simulation adequately reflects the industry's concerns, interests, and constraints. Subsequent funding will be sought to support future investigations of logistics and supply chain management trends in the food industry. Additionally, curriculum changes centering on use of the value chain simulation in the classroom are being considered. The goal of these efforts is to produce better educated students with a sound understanding of the relationship between theory and practice. Anecdotal evidence suggests that these students are likely to contribute to future research and teaching as managers in industry with a desire to maintain ties to academia.

Logistics and transportation faculty at The University of Tennessee (UT) have led the way in applying the tools and philosophy of Total Quality Management to improve UT logistics and the MBA curriculum. Using the recommendations of industry representatives as guidelines for process improvements, UT faculty set up a task force to address student and industry concerns with the relevance of the undergraduate and graduate programs. Following a procedure involving close customer contact and process redesign, the Tennessee faculty were able to create an experimental MBA program that integrated functional business areas in the curriculum core within eight months of initial conception (Foggin and Dicer 1992). The focus of the new curriculum influences undergraduate and executive teaching as well as research efforts of logistics faculty. Similar innovative programs have been pursued by logistics faculty at several institutions including The University of Alabama, The University of Arkansas, Georgia Institute of Technology, the University of Maryland, Massachusetts Institute of Technology, Northwestern University, The Ohio State University, Old Dominion University, the University of Pennsylvania, Pennsylvania State University, and Western Michigan University, among others (Gentry, Keller, Ozment, and Waller 1997).

## CONCLUSIONS

The experience accumulated by the top logistics programs in successfully merging theory and practice form the basis for the model suggesting an academic program grounded in practice. In the model, the classroom is viewed as an outlet for leading edge findings to create the next generation of managers committed to partnering with academia. The various examples illustrate how programs without a history of a strong academic-practitioner interface can utilize their strengths and forge an

ongoing relationship that benefits all constituents of higher business education. For the faculty member, it provides the opportunity to share ideas with top business managers and gain access to ideas and data that lead to publishable research, furthering knowledge in the field. Students can participate in research that contributes to the knowledge in their major while gaining practical experience and networking opportunities with potential employers and colleagues. Administration, government, and the public benefit from partnerships that spread financial support and foster working relationships between educators and practitioners, bridging theory and practice. Additionally, administrators may use the model as a basis for faculty performance evaluation. The model provides a template for monitoring faculty progress toward an integrated program of research, teaching, and outreach; a program that contributes to leading edge knowledge generation and dissemination that is grounded in business practice.

From the practitioner's standpoint, the model affords business managers a chance to guide the direction of academic research. Participating practitioners also benefit from the generalizable research across company boundaries, gaining a valuable view from "above the clouds" of everyday operations. Such a view is not often available to researchers operating from within industry due to proprietary risks. Partnering with academia provides managers with access to leading edge knowledge culled from a cross-section of top firms. In addition, the research findings will influence successive classroom teachings that will educate current and future employees. It should also be noted that such research is often disseminated in trade publications, professional meetings, and executive education, further enhancing the image of participating firms. In the process, managers working on joint industry-academic research teams with faculty as well as students

gain insights that may influence future hiring decisions.

While the primary emphasis of the model has been focused on business faculty housed in public universities that emphasize academic research, applications are also relevant to faculty from institutions with other missions. Regional universities, schools where teaching is the primary priority, and private colleges and universities can also benefit from application of the model. The focus of the faculty-business relationship may readily be shifted toward curriculum development, consulting and funded projects, internships, or business laboratories in which faculty-guided student teams work to solve real-world problems for local, regional, national, or global businesses.

Importantly, the model provides a basis for removing the barriers between educators and business practitioners in a win-win environment. Rather than approaching industry looking for charitable handouts, which faculty may view as job enlargement and inherently distasteful, the relationship is based upon the provision of mutual value. As in any relationship, small initial positive experiences should grow into greater commitment and trust between the partners. With continued success, partnerships between academia and industry may become the expected work environment for new faculty, managers, and students rather than unique exceptions. Logistics educators and practitioners, followers of a discipline that espouses process management from conception to completion utilizing agile operations and collaborative approaches enabled by information sharing, must step forward and lead business schools to this new model. Along the way, the importance of logistics programs to the vast number of business schools, faculty, and administrators that are unaware of the potential offered by the discipline may be realized, as it is increasingly realized in industry.



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