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Want to Launch a Successful Academic Career? Then Build a Multi-Disciplinary Foundation

by Rohit Verma, University of Utah

Recent articles in the doctoral students' column provide ample guidelines on getting an academic job (Prahinski, 2002) and getting the dissertation completed in an effective manner (Grover & Malhotra, 2003; Aronson, 2001; Davis, 2000). In addition, we have seen write-ups on frequently asked questions (FAQ's) and common mistakes made by doctoral students (Robey, 2001; Grover, 2001). These articles provide extensive and valuable suggestions for successfully managing one's doctoral program.

The purpose of this article is to highlight (or reinforce) several points mentioned in earlier columns and to also provide some other insights that I believe have helped (and continues to help) me and my colleagues in our respective academic careers. In writing this article, I have incorporated the viewpoints of several of my colleagues, but the obvious bias for a broad multidisciplinary approach is primarily mine. Hence, the ideas presented in this paper represent only one possible strategy for launching a successful academic career.

The Real World Is Multidisciplinary

Let's face it—most real-life business problems are not defined by functional boundaries. Those topics that do fall within various academic functional areas of business management are almost always multidisciplinary. For example, is product/service development a marketing problem or an operational problem? Is customer relationship management an IT issue or a marketing issue? How about supply chain management? As a POM academic, I would like to claim it within our domain 100 percent; however, by ignoring the IT, marketing, financial, and human resources issues within the supply chain theory, we would probably only be able to see a very narrow pic-

ture of what actually happens in real businesses.

While the importance of maintaining one's focus in research is undisputed, I believe that it is equally important to understand and consider the broader issues that are typically outside the domain of most of the narrowly defined functional or topic boundaries. Top-tier journals (e.g., *Decision Sciences*, *Management Science*) and grant-making organizations (e.g., National Science Foundation) are increasingly emphasizing the "balanced" approach between depth and breadth in research projects. MBA curriculum in many universities are also taking a more integrative and multidisciplinary form; in fact, several universities have even stopped offering traditional majors within the MBA program. Therefore, I believe that it is essential for a successful business-school teacher or a researcher to develop the ability to approach real-life problems with rigor, depth, and thoroughness. For doctoral students then, as future members of the academic community, it is important to develop a multidisciplinary foundation early in their educational program. But how does one go about doing so, while also trying to get an in-depth understanding of the functional discipline (e.g. Operations, IT) or a sub-area (e.g. Service Design, Customer Relationship Management)?

Building Multidisciplinary Foundation: Some Ideas

Take courses outside your core area as part of doctoral coursework. In my doctoral program a few years ago (1991–1995), I took courses in international economy, marketing, educational psychology, and strategic management in addition to classes within my chosen major of operations management. Given the time constraints that we all work with, it is not feasible to



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take these classes for grade-credit (unless some such courses can be counted towards Ph.D. credit); therefore, I simply audited courses by receiving special permission from the instructors. Also, with limited intellectual capability, it was not possible for me to receive the highest (or even a half-decent) grade in each course—but that didn't matter at all. What did matter was that I was introduced to many different ways of thinking about research in social sciences. In fact, some of the very best projects I've been able to complete to date (although others might have a different assessment of their quality!) were only possible because of interactions with non-POM individuals.

For example, during 1993, as part of a course in educational psychology, Professor John Kircher strongly emphasized the importance of statistical power in empirical research. He argued that although many sophisticated statistical methods are used to test hypotheses, social sciences researchers often ignore the inter-relationships between sample size, effect size of the phenomenon of interest, and statistical significance, leading to unreliable results. He cited examples from medical/psychological lab experiments in classes. Experienced POM researchers may recall that this was a time when empirical research was considered to be a "new frontier" within POM and many articles were written about theoretical and methodical aspects of survey-based projects (e.g., Flynn et al., 1990; Meredith et al., 1889; Swamidass, 1991). Within this context, Professor Kircher's class made me think about the reliability and validity of survey-based empirical research. Because of his course and subsequent discussions with fellow Ph.D. student John Goodale, we were able to get our first paper accepted in *Journal of Operations Management* (Verma & Goodale, 1995) prior to going out into a very tough job market in the fall of 1995.

Audit multidisciplinary courses after completing comprehensive examination. Yet another strategy is to continue taking/auditing non-major classes after the completion of the comprehensive examination. This is the time when doctoral students must come up with their research proposals and start working on their dissertations. In my opinion, this situation is ideal for exploring other functional fields. In addition to "getting a break" from the

literature in the major area, students might develop a new perspective for looking at the research problems they intend to pursue. I believe that that at this stage in the Ph.D. program, insights from other fields could provide invaluable help in formulating a good dissertation proposal.

Here is another personal example in this context. When starting to work on my dissertation, I was struggling to come up with research methods for linking market preferences with operational constraints/capabilities within the service industry. Being an engineer-turned POM major, I was exploring both mathematical programming and simulation modeling approaches, while at the same time thinking about giving my dissertation an empirical focus. It was a struggle—the theoretical model was ready but the "action plan" was far from complete. About this time, I happened to meet Professor Jordan Louviere in a marketing brown bag seminar who suggested that I might benefit from auditing his Ph.D. seminar on something called "Choice Modeling"! That course was a defining moment in my doctoral project and has become a cornerstone of my subsequent research stream. I sometimes wonder what would have happened to my career and research if I had not attended this marketing seminar and had not met Jordan!

Read journals outside the core area. That doctoral students have to familiarize themselves with the current and classic literature in their chosen field goes without saying. At the same time, as Thomas Kuhn notes, few major developments in science come from work done by people trained in narrow sub-areas of particular fields (see, for example, <http://webpages.shepherd.edu/maustin/kuhn/kuhn.htm> for background information about Professor Kuhn and Philosophy of Science). Kuhn suggests that instead, most major breakthroughs and insights come from cross-disciplinary training or teams that provide new insights or new ways of looking at problems. I, for one, strongly believe in Kuhn's ideas, and therefore would like to emphasize further that all Ph.D. students should routinely read articles published in journals outside their primary field of interest to the extent that it is feasible and reasonable given the time constraints. Of course, one definitely has to pick and choose, since it is most definitely not possible to read every journal in every scientific field out there.

Perhaps the toughest part of a Ph.D. program is to develop the skill for generating research ideas. How does one go about thinking of research questions? And how does one handle nagging questions such as "What if someone else has already looked at the same research problem and solved it?" "What if my idea is no good?" Unfortunately, there are no easy answers to many of these questions, but a multidisciplinary perspective to many of these issues can help address them in a more complete manner. As I mentioned earlier, important management topics such as product development, supply chain management, and CRM are being studied by researchers in many different fields. So there is one other way of finding out if you have a truly new research idea without keeping track of publications from journals in various fields!

Attend multidisciplinary conferences. In many ways, attending conferences are even more important than reading journals. Because of the lead times associated with the peer-review process, journals document "hot-topics" of the recent past and may be lagging in new and emerging research themes. So I suggest that Ph.D. students should start attending conferences early in their program. Furthermore, I recommend that they try to attend at least a couple of multi-disciplinary conferences (e.g., DSI and INFORMS) to get a feel for how researchers in different fields are addressing problems that cut across functional boundaries.

Being Multidisciplinary Is Important But ...

A word of caution: Many researchers might argue (and I agree) that too much emphasis on multidisciplinary issues might lead to lack of focus in one's research. Like everything else, a balance is needed. Therefore I do not recommend that doctoral students spend most of their time enhancing their multidisciplinary knowledge at the cost of weakening their major's functional foundation—it is important to both balance and prioritize. I don't believe, however, that one can ever develop a general equation to calculate "how much" multidisciplinary focus is "too much."

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To meet our challenge means that we must do several important things: (1) Develop the material further so that more varied problems can be solved. (2) Find more situations to which existing theory can be applied. (3) Increase the number of people who know the basics of the theory and apply it to problems they encounter or suggest applications to problems they encounter. (4) Collect more data on situations which can improve the base of the theory.

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NAMES IN THE NEWS

**CAROL LATTA, Executive Director,
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The Carnegie Bosch Institute is pleased to announce the publication of *Business Aspects of Closed-Loop Supply Chains*, edited by **Daniel R. Guide, Jr.**

(see photo) of the Smeal College of Business Administration, The Pennsylvania State University, and **Luk N. Van Wassenhove** of INSEAD. The book is based on the idea that the best way to address the extended producer responsibilities requirements imposed on businesses is to approach the problem from a business perspective. The book explores the idea that economic incentives (increased profits) provide the strongest argument in favor of firms developing closed-loop systems. The book takes a multidisciplinary approach. Each of the 13 chapters includes a more detailed discussion of the research needs for each of the areas addressed in the book.

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