Doctoral Programs in Business-to-Business Marketing: Status and Prospects

Erwin Danneels
Gary L. Lilien

ABSTRACT. PhD programs in Business-to-Business Marketing are under increasing pressure to bring both more rigor and relevance to their training processes. We report on an empirical investigation on the practices and needed developments in Marketing PhD programs, focusing specifically on Business Marketing. Based on a sample of 41 programs worldwide, we find widespread agreement that the rigor/relevance challenge is even greater for Business Marketing scholars than for their colleagues who concentrate on the consumer market. Business Marketing PhDs deal with products with hard to understand uses and benefits, often exchanged in non-public markets with relatively few customers. These challenges lead us to recommend, among other things, that we must recruit PhDs from non-traditional sources and encourage them to partner with scholars from methodological and scientific disciplines to increase both rigor and relevance in their work.
[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworthpressinc.com]

KEYWORDS. Business-to-Business Marketing Education, Doctoral Studies

---

Erwin Danneels is a PhD Candidate, Department of Marketing, and Gary L. Lilien is Distinguished Research Professor of Management Science, Penn State, Institute for the Study of Business Markets, 402 BAB, University Park, PA 16802 (E-Mail: edd111@psu.edu and g51@psu.edu).

The authors thank Anant Balakrishnan, David Lichtenthal, Ken Lusht, and Arvind Rangaswamy for their suggestions, and Annmarie Garganes for assistance with data input.

INTRODUCTION

Marketing is the study of exchange relationships. PhD programs in Marketing are primarily designed to train academics to create knowledge about exchange relationships through research and to disseminate that knowledge to practitioners through teaching.

The financial value of business-to-business transactions in the U.S. in 1995 was over six trillion dollars, over twice that of consumer transactions (Slater 1996), yet the focus of the bulk of research and teaching in marketing focuses on the consumer marketplace. Penn State's Institute for the Study of Business Markets (ISBM) was founded in 1983 to help direct more academic attention to the problems and research opportunities available in the business marketplace. Since its founding, the ISBM has dedicated programs and resources to stimulate the development of the careers of Marketing scholars interested in the business marketplace, including considerable resources devoted to encourage and support PhDs. We undertook this investigation to better understand the status and prospects for PhD education in business markets.

The paper proceeds as follows. In the next section, we present a historical perspective, providing background for an empirical study. Next we describe the survey and provide some descriptive statistics. In the following section we analyze the survey data which suggest some clear weaknesses both in the input (applicants) to the programs and the training that the programs provide. We discuss the implications of these findings for improvements both in the recruiting for PhD programs as well as program contents. Finally, we sum up and suggest the need for ongoing study in this area. We will use the terms Business Marketing and Business-to-Business (B-to-B) Marketing synonymously in this paper.

PHD IN BUSINESS: A LOOK BACK

A book edited by Byrt (1989) describes the historical development of business schools from a global perspective. In most countries outside the U.S., there appears to have been little research or academic development in business prior to the WW II period. Definitions are fuzzy here; business or commerce often began to grow within faculties of economics or law, which had much earlier beginnings. However, with the possible exception of France and its Grands Ecoles, started with the foundation of the Ecole des Hautes Etudes Commerciales (HEC) in 1881, it appears that the oldest and deepest roots of academic business education were in the United States. We will take a U.S.-centric perspective here, noting that our data will have some global implications.

The earliest business schools in the U.S. were founded around the turn of the century: The Wharton School (1881), The University of Chicago (1898), New York University (1900) and The Harvard Business School (1908). These early developments were followed by the rapid addition of business school programs in public universities during the period shortly after the first world war. That proliferation lead Leon Marshall (1928) from the University of Chicago to critique the quality of the programs that were developing. He was concerned that rapid growth was not accompanied by academic rigor.

The economic boom following the second world war lead to an accompanying increase in the demand for business education. That demand created a second surge in the supply of such programs, exacerbating the situation that Marshall noted. Both the academic and business communities became concerned about the problem with several results.

First the AACSB (American Association of Collegiate Schools of Business), although founded in 1926, truly began to exercise influence in the 1950s through its accreditation process. By 1958, 85 schools had joined and a number of others were actively seeking the membership and approval that AACSB accreditation afforded.

The AACSB sponsored several studies (Kozelka 1954; Arden House Report 1956), designed to guide the standards for accreditation. These studies highlighted the need for further study and signaled the need for rigorous research within the framework of business schools, paving the way for the foundation reports.

The publication of the foundation reports (Pierson 1959, sponsored by the Carnegie Foundation; Gordon and Howell 1959, sponsored by the Ford Foundation) had perhaps the greatest impact on the development of U.S. business schools of any events in this century. They outlined the evolution of business education in the U.S. and the changes that would be needed to insert academic rigor into those programs. The Gordon and Howell report in particular stresses the need to link business research and education to three underlying disciplines: economics, behavioral science, and applied mathematics. The reports make numerous recommendations about research rigor and the need for such rigor in business school programs if they are to achieve scientific acceptance. They highlight the need for release time for faculty research and stress that fundamental, rigorous research be part of the PhD educational process. To sum up, Gordon and Howell recommend:

> There is a critical need to develop in the business schools a more stimulating intellectual atmosphere and to generate within their faculties more probing questions and to engage in more significant research (p. 377) . . . Most thoughtful observers are agreed that the research performance of the business schools has so far been unsatisfactory. (p. 389)

Pierson echoed these sentiments and the two reports changed the hiring practices, the reward systems and the instructional programs around the country. Scholars with PhDs in disciplines other than Business (Economics, Psychology, Operations Research, Engineering, Statistics, Mathematics and the like) were hired by business schools and encouraged to keep ‘‘rigorous’’ research links with their underlying disciplines. Universities answered the call for action that the foundation reports sent, but not all were happy with the results.

In 1988, the AACSB released the Porter-McKibben report, which documented the impact, both positive and negative, of the foundation reports. On the positive side, Porter and McKibben note, business school faculty were clearly producing large quantities of research that is valued by their academic colleagues, both in business and in underlying core disciplines. On the negative side, they cite concerns that too much basic (abstract? irrelevant?) research was being produced and more applied research was needed. It is interesting to note that this need for more applied research is echoed by faculty, deans and provosts at the reports’ most research oriented (category I) schools, who state by a factor of more than two to one that business school research should become more applied (p. 172). They also cite overemphasis on research quantity versus quality and too much focus on the academic audience as the target for the research. The report points out that at that time, the overriding concern of business school deans was to improve their research output, while the business community was concerned about the relevance and practical nature of the education that business schools were providing. The report also notes a concern about the lack of supply of high quality job applicants (new PhDs?), a point that we will return to later.

Since the Porter-McKibben report, the discussion has continued. The Dallas Conference (1992) provided a lively forum for debate on critical issues of doctoral education. Several of the key concerns raised at the conference were:

> Doctoral education lacks relevance to business concerns. (p. 17)
>
> Today's training of doctoral students is one-dimensional; its exclusive attention to research produces graduates unprepared for teaching, the activity in which they will spend most of their careers. (p. 18)
>
> Business schools continue to be at a competitive disadvantage with other academic departments in vying for faculty appointments, doctoral students and research recognition. (p. 21)

Much of the recent discussion has surrounded the need to become more customer-oriented, viewing students as the primary customers. Leavitt (1993) and West (1991, 1992) criticized business schools for a lack of preparation for teaching.

Dulek and Fielden (1992) blame the "better business schools" who have created an escalation game by putting narrow research output (relevant or not) at the top of their priority list, above teaching and responsiveness to students' needs. They admit that their call will not be heard as it will be seen as a request to return to the low status days of the pre-foundation report era. Alutto (1993) criticizes business schools for not employing an interdisciplinary approach to business problems.

May (1994) points out some other shortcomings of existing programs: that while folks have been paying lip service to the need for internationalization, there is little happening in PhD programs to make this come to pass. He sees no likelihood of a major change in program structure in the next 15-20 years without major intervention. Madansky (1994), in an interesting twist, argues that the role of the PhD program is to ensure that candidates have mastered a body of knowledge and are trained to add to that body of knowledge. He argues that the hiring institution has the onus of ensuring that future research will be relevant and that the newly hired PhD gets training in imparting the material he or she has learned.

So it appears that the pendulum has swung to the other side. The background for our study is an environment that before the 1960s was seen as low in scientific merit, producing little research of consequence. The production of such research, as a necessary ingredient for status with Universities, got much of the focus of developments during the 1960s, 1970s and 1980s. The 1990s has seen pressure in the opposite direction, calling for high quality PhDs who can produce good and practical research and who understand and can relate to key constituencies (students and the business community). Much of the discussion of doctoral programs has been conducted without solid data about the current status of doctoral education (Graduate Management Admission Council 1992). This paper takes stock of the current situation of doctoral programs in Marketing, focusing especially on the nature of doctoral education in Business-to-Business Marketing.

DATA COLLECTION

We developed and administered a two-part mail survey to generate the data for this research. The first part of the survey asked for data about Marketing PhD programs and the second asked for input into research priorities of the ISBM. We only report on the analysis of the first part of the survey here. That survey asked about program characteristics, coursework, perceived deficiencies in current training methods, mechanisms for addressing those deficiencies, placements of recent PhDs and satisfaction with those placements. We included a cover letter with the survey, explaining the purpose of the study and a reply envelope (postage paid for U.S. respondents). Respondents also had the option to fax their responses.

The population we were interested in consists of all doctoral programs in Marketing. We derived our sampling frame from two sources: we used the academic data base from the ISBM and selected those universities that we believed had PhD programs. We integrated that list with the information we found in the Wiley Guide for Marketing Faculty (Hasselback 1995). Whenever we had any doubt about whether a university had a PhD program, we included that university in our sample. We also included as many PhD programs outside North America as we could locate; although (as we will see) those programs are structured quite differently from U.S. programs, the increasing focus on internationalization of PhD programs makes their inclusion quite appropriate (May 1994).

We executed two waves of mailings. The first wave, sent late November 1996, went to 107 U.S. and 72 non-U.S. institutions, for a total of 179. It yielded only 16 useable responses by mid December; some surveys were returned, notifying us of the absence of such a program, but with reaction to the ISBM priorities. We sent another wave to non-respondents in mid December, with a more personal, urgent request for response. The second wave went to 88 U.S. and 50 non-U.S. institutions. After three months, we received useable data on 41 doctoral programs from all over the world, for an overall response rate of 23% (Appendix 1 gives a list of the responding institutions). This response rate is biased downward since we may have included institutions without a doctoral program in our sampling frame. The diversity of the schools suggests that the population is extremely heterogeneous; nonetheless a comparison of the responses from the first wave with those from the second wave revealed no apparent response biases.

Table 1 describes our sample. We achieved a spread of countries, and we believe that these schools are a representative sample of the major producers of doctoral degrees in Marketing. We directed the survey either to a faculty member that we knew had some Business Marketing interest or to the faculty chair if we could not identify such a faculty member. Our respondents are spread over the various faculty ranks and include 37% department chairs. Nearly two thirds (63%) of the respondents indicated interest in Business Marketing.

In consultation with several faculty colleagues, we attempted to classify the respondent schools and the schools of placement into four categories: top tier research school, research intensive school, teaching school with some research, and predominantly teaching school. After several rounds of independent classification and reconciliation, we found that we only had four schools in the fourth category for responding schools. Therefore, we collapsed the third and fourth categories into a single category, "teaching intensive schools," for classifying responding institutions. For classifying schools of placement we maintained our original four groups.

We content analyzed answers to the open-ended questions as follows. First we transcribed all of the answers to the open-ended ques-

TABLE 1. Description of the Respondents (n = 41)

	Absolute Number	Percentage
School Type		
Top Tier Research Schools	6	14.6
Research Intensive Schools	13	31.7
Teaching Intensive Schools	22	53.7
Country		
USA/Canada	26	63.4
Europe	10	24.4
Asia	2	4.9
Australia/New Zealand	3	7.3
Respondent Position		
Instructor	1	2.4
Assistant Professor	6	14.6
Associate Professor	8	19.5
Full Professor	26	63.4
Doctoral Program Advisor	3	7.3
Department Chair	15	36.6
B-to-B Involvement		
Indicated at least some involvement in B-to-B area	25	62.5

tions. Then we developed a coding scheme and coded each of the answers. We then included these codes with the response data.

ANALYSIS

Table 2 describes some key characteristics of the programs. Note that the average number of faculty indicating interest in Business Marketing in the responding institutions is 2.1. This number is likely to overstate the universe average, given that our sample was selected at least partially to favor such interest. We calculated a proportional interest in B-to-B among faculty by dividing the number of faculty specializing in B-to-B by the total number of faculty (both expressed as FTE, or Full Time Equivalents). We find that, on average, 19% of the faculty have a particular interest in B-to-B. We also find that programs on average have two students with a particular interest in this area, or proportionally 23% of the students (calculated similarly).

TABLE 2. Description of Responding Programs (n = 41)*

	Mean	Standard Deviation	Minimum	Maximum
Number of Marketing Faculty (FTEs)	11.6	6.2	2	32
Number of Faculty Specializing in B-to-B (FTEs)	2.1	1.9	0	9
Number of Ph.D. Students Taken in per Year	2.6	0.9	0.5	4
Number of Ph.D. Students (all years)	8.9	4.2	0	20
Number of Ph.D. Students with Interest in B-to-B	2	1.5	0	6
Years to Complete Ph.D. (on average)	4.2	0.7	3	6
Doctoral Student to Faculty Ratio	0.95	0	5	0.77
Proportional Faculty Emphasis on B-to-B	19%	15%	0%	59%
Proportional Student Emphasis on B-to-B	23%	17%	0%	75%
Breadth in Training in Methods	3.8	1.3	2	7
Breadth in Training in Substantive Areas	3.7	1	1	5
Relative Emphasis on Teaching	2.3	1	1	5

*If a respondent indicated a range in response to any of the questions, we used the midpoint of that range.

Both faculty and student interest in B-to-B show a wide range across the various programs as the minimum and the maximum columns in Table 2 indicate.

We are interested in how training philosophies vary across doctoral programs. Casual observation suggests that some doctoral programs focus much more on breadth of training, while others concentrate on depth. We asked the respondents to assess the relative breadth versus depth of training in their doctoral program both for substantive areas and methodology on a scale from 1 (depth dominates) to 7 (breadth dominates). On average, programs rate themselves in the middle on both methodological and substantive dimensions of training, although there is substantial diversity across programs. We also asked respondents to indicate the relative emphasis on teaching versus research in their doctoral training on a seven-point scale ranging from 1 (research dominates) to 7 (teaching dominates). Most programs emphasize research, but again, there is considerable diversity.

Program Characteristic Differences

Table 3 shows some striking differences in program characteristics by geography and by type of school. Programs outside North America

TABLE 3. Program Differences by Region and School Type (n = 41)*

Program Characteristics	North America	Outside North America	Top Tier Research Schools	Research Intensive Schools	Teaching Intensive Schools
Number of Marketing Faculty (FTEs)	12.5	10.2	13.5	12.2	10.8
Number of Faculty Specializing in B-to-B (FTEs)	2	2.3	1	2.1	2.5
Number of Ph.D. Students Taken in per Year	2.8	2.2	2.7	2.6	2.5
Number of Ph.D. Students (all years)	10.5	6.1	9.8	9.6	8.3
Number of Ph.D. Students with Interest in B-to-B	2	2.1	0.8	2.1	2.3
Doctoral Student to Faculty Ratio	0.9	1.1	0.7	0.9	1.1
Years to Complete Ph.D. (on average)	4.4	4	4.3	4.2	4.1
Proportional Faculty Emphasis on B-to-B	16%	24%	7%	19%	22%
Proportional Student Emphasis on B-to-B	19%	32%	6%	23%	29%
Relative Emphasis on Teaching	2	2.7	1	2.2	2.7

*If a respondent indicated a range in response to any of the questions, we used the midpoint of that range.

place a higher emphasis on teaching in their doctoral training and also report a higher involvement in the B-to-B area among students as well as faculty.

The self-rating of the respondents provides some validation for our classification of schools. The top tier research schools identify themselves unanimously with the extreme of the scale (research dominates), whereas the research intensive and teaching intensive schools place themselves more toward the teaching end of the continuum.

Although the top tier research schools on average employ more faculty in total than any of the other categories, they report only one faculty member specializing in the Business-to-Business area, less than half reported in the other categories. They also report much less student interest in this area. The same finding is evident from the proportional faculty and student interest in B-to-B.

Admission Criteria

We asked for the general prerequisites for Marketing PhD program applicants (Table 4). About half of the programs consider prior work

TABLE 4. Prerequisites for Marketing PhD Applicants by Region and School Type (n = 41)*

Prerequisites	Overall %	North America	Outside North America	Top Tier Research Schools	Research Intensive Schools	Teaching Intensive Schools
MBA (or equivalent)						
Required	53.7	38.5	80	0	38.5	77.3
Prior Work Experience						
Required	2.4	3.8	0	0	7.7	0
Desirable	51.2	65.4	26.7	50	53.8	50
Not critical	46.3	30.8	73.3	50	38.5	50
Prior Marketing Courses						
Required	39	19.2	73.3	0	23.1	59.1
Other Admission Criteria (Mentioned in open question – multiple responses possible)						
GMAT	46.3	69.2	6.7	–	–	–
GPA/Grades	26.8	19.2	40	–	–	–
Research Area/Interests	24.4	19.2	33.3	–	–	–
Recommendations	7.3	–	–	–	–	–
Master's Degree	7.3	–	–	–	–	–
Are Prerequisites Different for Applicants with Interest in B-to-B?						
Not different	89.7					
Business experience	7.7					
Feel for technicality	2.6					

*Comparisons omitted if some cells have four or less observations.

experience desirable while the other did not consider it critical, and only one program required prior experience. Just over half of the programs require an MBA or equivalent degree. Sixty-one percent of the programs don't require any prior marketing coursework. In an open-ended question we asked respondents to indicate other prerequisites. Respondents indicated up to three items. Almost half of the respondents said that the applicant's GMAT score was important. Another 27% suggested that the results of previous study were important and 24% mentioned the research interests of the faculty, especially in regard to fit with faculty areas of interest:

> We have no faculty who do experimental work or focus strictly on consumer behavior issues. We seldom admit anyone who mentions a strong interest in these areas, since there are no faculty to support them.

A number of respondents indicated that their evaluation of each candidate is "holistic," judged on a case by case basis, and that no one criterion is applied rigidly.

In answer to the question if any of their prerequisites were different for applicants with a specific interest in the B-to-B area, the answer was generally "no," with only one respondent answering in the affirmative:

> I think it is inappropriate for people who have no experience to start their research activities in Business to Business.

However, a few respondents indicated that while the same prerequisites were applied to all, B-to-B Marketing had a special nature:

> Motivation is most important and a "feel" for technicality.
>
> Perhaps experience should be emphasized more for Business to Business.
>
> It would be amazing if anyone had an interest in this area, but no relevant experience.

Table 4 displays some striking differences in prerequisites by region and school type. (We only report comparisons where there are at least five observations per cell.) In particular, none of the top tier research schools require an MBA (or equivalent) while 77% of the teaching intensive schools do and 80% of the schools outside North America do. Top tier research schools require no prior Marketing courses, while 59% of the teaching intensive schools do, and 73% of the schools outside North America do.

Only 27% of the schools outside North America report that work experience is desirable, compared with 65% of the North American schools. The schools outside North America rarely use GMAT scores and rely more heavily on grades and research area interests.

Courses and Tracks

We asked respondents which courses they required of all students in their program. We provided a list of courses, and allowed the respondent to add to the list. Table 5 gives the results (with the added courses indicated). More than half the programs require Statistics, Marketing Models, and Consumer Behavior, only about 10% of all programs require a course in B-to-B marketing, and 17% of the schools (mostly non-North American) require no coursework at all. The programs without required courses operate in an apprenticeship format, with the doctoral program designed by the advisor and student around their joint interests:

> We have no required courses. We design course programs on an individual basis.
>
> We don't have courses. Ph.D. is by thesis. Students read in relevant areas.
>
> None, however, we have a "mentoring" model where faculty members work closely with students in designing a customized curriculum.

We classified courses into three areas of doctoral study: methods, substance, and foundation disciplines. For methods, we included: Marketing Models, Statistics, Econometrics, Research Methods, Measurement, Game Theory/Choice Models; for substance: Marketing Channels, Marketing Management, Marketing Theory, Consumer Behavior, Business-to-Business Marketing, Microeconomics; for courses in the foundation disciplines: Psychology, Sociology, Philosophy of Science, Organization Theory, and Microeconomics.

We summed the number of required courses in each of these areas and calculated the relative coursework emphasis in each program, by dividing the number of methods, substance, and foundation courses respectively by the total number of required courses. The results are displayed in Table 5. On average, programs require five courses, half of which are in methods. All of the schools that do not require any coursework are in the teaching intensive category. We report comparisons for individual courses only if ten or more programs offer the course. Programs outside North America require only half the number of courses (about three) that North American schools do (six); 40% of non-North American schools require no coursework at all. The top tier schools place more emphasis on methods, and less on substantive courses, whereas the other two types of schools emphasize these areas equally. We also noted a positive, significant correlation (0.32) be-

TABLE 5. Required Courses and Tracks by Region and School Type (n= 41)*

Required Courses**	Overall %	North America	Outside North America	Top Tier Research Schools	Research Intensive Schools	Teaching Intensive Schools
Marketing Models (M)	51.2	65.4	26.7	66.7	76.9	31.8
Marketing Channels (S)	14.6	–	–	–	–	–
Marketing Management (S)	46.3	53.8	33.3	16.7	76.9	36.4
Statistics (any graduate course) (M)	70.7	88.5	40	83.3	92.3	54.5
Econometrics (M)	26.8	30.8	20	50	30.8	18.2
Consumer Behavior (S)	65.9	80.8	40	66.7	84.6	54.5
Business-to-Business Marketing (S)	9.8	–	–	–	–	–
Research Methods (in Marketing) (M)	78	88.5	60	83.3	100	63.6
Psychology (any graduate course) (F)	17.1	–	–	–	–	–
Sociology (any graduate course) (F)	7.3	–	–	–	–	–
Philosophy of Science (F)	36.6	34.6	40	0	53.8	36.4
Preparation for Teaching	17.1	–	–	–	–	–
Organization Theory (F)	9.8	–	–	–	–	–
Microeconomics (F)	31.7	38.5	20	66.7	46.2	13.6
Proseminar/Colloquium (added)	12.2	–	–	–	–	–
Marketing Theory (added) (S)	22	–	–	–	–	–
Game Theory/Choice Models (added) (M)	7.3	–	–	–	–	–
Measurement (added) (M)	4.9	–	–	–	–	–
No courses required	17.1	3.8	40	0	0	31.8
Relative Coursework Emphasis						
Number of Methods Courses	2.4	2.9	1.5	3.2	3	1.8
Number of Substantive Courses	1.6	2	0.9	1	2.6	1.4
Number of Foundational Courses	1	1.2	0.8	1	1.3	0.9
Number of Required Courses	5	6	3.2	5.2	6.5	4.1
Relative Emphasis on Methods	51%	51%	51%	62%	48%	49%
Relative Emphasis on Substance	30%	32%	26%	19%	33%	32%
Relative Emphasis on Foundation	19%	17%	23%	19%	18%	19%

TABLE 5 (continued)

Required Courses**	Overall %	North America	Outside North America	Top Tier Research Schools	Research Intensive Schools	Teaching Intensive Schools
Tracks in the Program						
Programs with Tracks	19.5	-	-	-	-	-
Programs with a B-to-B Track	2.4	-	-	-	-	-

*Comparisons omitted if course is required in less than ten programs.
**(M) Methods course, (S) Substance course, (F) Foundation course

tween the number of required courses and the number of years reported that it takes to graduate from the program!

We asked respondents which courses they recommended for students with an interest in the B-to-B area. Respondents suggested up to three courses (Table 6), with organization theory, relationships/alliances, and negotiation/sales the most frequently mentioned.

Only about 20% of respondents report distinct tracks within their program:

> The program is completely individualized to the student's interests.
>
> Tracking is informal only.
>
> We allow for individual design of course programs. Worked out together with supervisor.

Only one out of the 41 programs in our sample reports a formal track for B-to-B Marketing (University of Nebraska). Even though some programs have a significant number of doctoral students interested in B-to-B, they do not appear to develop specific programs for those students with such an interest:

> Our program does not have the scale to consistently offer Ph.D. level Business-to-Business courses. We are reasonably comfortable with the customized approach, even though it is particularly labor-intensive.
>
> As presently structured, the program can serve the needs of a student with Business Marketing interests. The student can pur-

sue this specialty in research projects tied to the required marketing seminars as well as through a research assistantship. Corporate access and funding are available for dissertation research and students have the opportunity to teach electives, like Business Marketing, if they wish.

Relevance and Preparation for Teaching

We asked respondents if and how their programs try to bring relevance to their students' research, and what preparation for teaching their programs provide.

Respondents mentioned four ways of bringing relevance to student research (Table 7), the most popular of which was the use of industry sponsors who provide research funding and access to their data. One quarter of our respondents reported no efforts to encourage relevance. The following are typical comments:

TABLE 6. Recommended Courses for Business-to-Business Students (n = 18)

Recommended Courses for Business-to-Business Students (multiple responses possible)	Percentage
Strategy	11.1
Organizational Theory	33.3
I/O Economics	16.6
Relationships/Alliances	33.3
Channels	16.6
Game Theory	5.5
Technology/Innovations	5.5
Qualitative Research Methods	11.1
Negotiation/Sales	27.7
Microeconomics	11.1

TABLE 7. Ways of Bringing Relevance to Doctoral Student Research (n = 32)

Approach Taken	Percentage
Nothing/not much done	25
Field methods	12.5
Industry sponsors/data access	31.3
Practitioner teaching/speakers	12.5
Research problem relevance	18.8

> A major criterion for dissertation research is potential managerial relevance. [Our] positioning is very much at the theory/application interface.
>
> Nothing explicit. Most of our students come with practical experience. Rigor is a bigger problem than irrelevance.
>
> Often get funding through a corporate funded research center that values practical research. Many students do interviews with practitioners in the early part of their data collection.

Respondents reported three ways to help prepare PhD students to be teachers (Table 8): working as a teaching assistant (grading, class design), having PhD students participate in teaching workshops, and actually teaching a class. Almost half the programs give PhD students opportunities to actually teach classes. The following are typical comments:

> We insist everyone teach on their own, and we attempt to monitor performance.
>
> Seminar in teaching methods. Each student teaches several undergraduate courses before they graduate.
>
> Our students all teach, we have a teaching effectiveness program, which includes workshops several times a year.

In some cases, students are prohibited from teaching.

> The University of California prohibits Ph.D. students from teaching.
>
> Ph.D. students are not allowed to give seminars or classes on their own in Germany!

TABLE 8. Preparation for Teaching (n = 37)

Approach Taken (multiple responses possible)	Percentage
None/very little	17.1
TA (grading, class design)	26.8
Workshops	31.7
Teach Class	46.3

Character of Programs with Emphasis in Business-to-Business

It is not surprising that students and faculty with interests in Business Marketing find themselves in the same programs: the correlation between the proportion of B-to-B students and the proportion of B-to-B faculty is 0.7. We defined programs with an emphasis in B-to-B as programs that have both a minimum of 25% of the faculty and 25% of their doctoral students interested in B-to-B. Eleven schools in our sample (26.8%) classify as such. We indicated these schools with an asterisk in our list of respondents (Appendix 1).

Table 9 compares schools with a high emphasis on B-to-B with their counterparts with a low emphasis on this area. Programs with emphasis on B-to-B have, on average, smaller faculties and a higher student-to-faculty ratio. Business-to-Business intensive programs place greater emphasis on substance and foundation courses, and somewhat less on methods courses. We only listed individual courses if they were required by ten or more of the original 41 schools in our sample (with the exception of the course in B-to-B Marketing). The only noticeable difference between these programs in terms of individual courses required is that B-to-B intensive programs more often require Econometrics and Microeconomics than the other programs.

None of the programs with emphasis on B-to-B are located in the top tier of schools. About one third of them are at research intensive schools, but two thirds are at teaching intensive schools. They are also more prevalent outside North America. Both types of programs are as likely to require an MBA as a prerequisite, and B-to-B intensive programs place less emphasis on prior work experience than programs low in B-to-B faculty and students. This pattern holds even when controlling for region (North America vs. Non-North America). On the other hand, programs with a B-to-B emphasis more often require prior marketing courses.

We expected that B-to-B intensive programs might do more to encourage relevance in research than other programs. Because the frequency counts for each separate way of encouraging relevance in doctoral student research (see Table 7: field methods, industry sponsors/data access, practitioner teaching/speakers, research problem relevance) were too small, we took any of these answers as an indication of some effort to bring relevance to doctoral research. We found that 90% of all respondents from programs with an emphasis on B-

TABLE 9. Character of Programs with Emphasis in Business-to-Business (N = 41)

	Low Emphasis on B-to-B	High Emphasis on B-to-B
Program Characteristics		
Number of Marketing Faculty (FTEs)	12.4	9.7
Number of Faculty Specializing in B-to-B (FTEs)	1.6	3.7
Number of Ph.D. Students Taken in per Year	2.5	2.7
Number of Ph.D. Students (all years)	9.1	8.4
Number of Ph.D. Students with Interest in B-to-B	1.5	3.4
Doctoral Student to Faculty Ratio	0.84	1.26
Years to Complete Ph.D. (on average)	4.2	4.3
Proportional Student Emphasis on B-to-B	17%	40%
Proportional Faculty Emphasis on B-to-B	12%	38%
Region		
North America	73%	36%
Outside North America	27%	64%
School Type		
Top Tier Research Schools	20%	0%
Research Intensive Schools	30%	36%
Teaching Intensive Schools	50%	64%
MBA		
Required	54%	55%
Prior Work Experience		
Required	0%	9% (n = 1)
Desirable	63%	18%
Not critical	37%	73%
Prior Marketing Courses		
Required	30%	64%
Required Courses		
Marketing Models	53%	46%
Marketing Management	43%	55%
Statistics (any graduate course)	70%	73%
Econometrics	23%	36%
Consumer Behavior	67%	64%
B-to-B Marketing	3% (n = 1)	27% (n = 3)
Research Methods	80%	73%
Philosophy of Science	37%	36%
Microeconomics	27%	43%
Relative Coursework Emphasis		
Number of Methods Courses	2.4	2.4
Number of Substantive Courses	1.5	1.9
Number of Foundational Courses	0.9	1.4
Number of Required Courses	4.8	5.6
Relative Emphasis on Methods	53%	43%
Relative Emphasis on Substance	30%	29%
Relative Emphasis on Foundation	18%	22%
Bring Relevance to Student Research	68%	90%

to-B indicated some effort to encourage relevance, compared to 68% for those without B-to-B emphasis.

Deficiencies in Faculty Applicants in Business-to-Business

We asked respondents what deficiencies they have noted in faculty job applicants in the B-to-B area. Since we specifically referred to applicants in the B-to-B area, many respondents did not respond to this question, except to note that they haven't hired in this area. The fourteen respondents noted three main deficiencies: poor methodological skills, poor conceptual/analytical skills, and lack of a practitioner perspective (Table 10). The following quotes represent these concerns:

> Unaware of profitability and other operational business constraints.
>
> Those whom we interviewed seem to lack methodological foundation. They are not terribly strong in data analysis, experimental design, etc.
>
> Lack of ability to conceptualize marketing problems at an abstract, theoretical level.

Placements

We asked respondents to report the placements of their three most recent graduates. Table 11 relates placements to the type of school of origin. The school where the faculty candidate graduates has a strong relationship to placement, with graduates more likely to stay at the same tier or descend than to ascend. The likelihood of placement in industry is inversely related to the research emphasis of the school.

About half (48.6%) of the respondents report that they were not

TABLE 10. Deficiencies in Job Applicants in Business-to-Business Area (n = 14)

Deficiencies (multiple responses possible)	Percentage
Methodological/Conceptual skills	50
Analytical skills	28.6
Lack of practitioner perspective	35.7

TABLE 11. Placements by School of Origin

	Placement (n = 38)	Top Tier Research Schools	Research Intensive Schools	Teaching Schools w. Some Research	Teaching Schools	Industry	Proportion Satisfied with Placements (n = 35)
School of Origin	Number of Placements						
Top Tier Research Schools	15	40%	26.7%	20%	13.3%	0%	66.7%
Research Intensive Schools	36	5.6%	33.3%	33.3%	19.4%	8.3%	54.5%
Teaching Intensive Schools	48	2.1%	6.3%	29.2%	43.8%	18.7%	44.4%

satisfied with their placements. The satisfaction rate increases with increasing research emphasis of the school, as shown in Table 11. Based on the respondents' comments, it seems that most programs would like to place their students at more research intensive schools, or at least achieve parity between their own school and the school of placement, as exemplified by these statements:

> More top ranked academic placements.
>
> Would like to do better, e.g., other Big Ten Schools.

We noted a difference between the North American and non-North American schools in the tendency of the latter to retain their graduates and to place more of their students in industry:

> Most of our doctoral students do not choose an academic career, but I would prefer them doing so.

Many non-North American schools also seem to place graduates within the same country:

> It would be nice to have more international appointments. The lack is more due to personal commitments than lack of quality.

DISCUSSION

In the Porter-McKibben report, in the Dallas conference (and later commentary), as well as in our survey results, some issues critical to (Business) Marketing doctoral education emerge.

It is clear that PhD programs in Marketing and in Business in general are feeling the same pressure that enterprises all over the world are feeling. They are being asked to be all things to all constituencies. Faculty who emerge from these programs are being asked to do high quality research that is both rigorous and relevant, to be excellent teachers, as well as to carry a substantial service load at their institutions.

While it is healthy and important to stress the need to improve on all these fronts, junior scholars are limited in terms of time and skills. The ideal Business Marketing researcher would be sophisticated methodologically, have a multidisciplary background, and draw on extensive industry experience. However, in practice, both faculty members and the schools that train them must make some compromises when reaching for this ideal.

It appears that top tier research schools, not surprisingly, place the highest weight on research quality. But they struggle with the rigor-relevance debate and seem to be unsure how to face it. The overall dissatisfaction with the relevance of most of academic research in marketing is putting increasing pressure on business school faculties worldwide. It is clear that relevance will play a more important role in coming years; the mechanisms for facilitating that relevance have not been finely tuned at this point.

The foundation reports recommended hiring from outside the discipline. With their lack of MBA or similar program prerequisites, many top tier institutions embrace this idea in PhD admissions. The schools who are dissatisfied with their placements (output) should perhaps look at the quality of their input. We will return to this later, but it is not evident that a strong background in business (through an MBA, for example) necessarily provides the best background to make research contributions in the area.

While these issues are critical to marketing in general, Business Marketing presents particular challenges. We have argued that the Business Marketing area is highly relevant and important, and yet we find that it is underrepresented in academia, both in terms of faculty and PhD students, particularly at the top tier schools. We speculate about some reasons for this. The operations of business markets are not overt, often taking place out of sight of casual observers. Without some job experience, it is difficult for a researcher to have a sufficient understanding of the operation of those markets to conceptualize problems appropriately. In addition, academics may have an insufficient understanding of technology to appreciate how value is created in market transactions. Hence, Business Marketing academic researchers often do research that is deemed irrelevant by those who actually work in the field. In fact, technically-oriented practitioners may not even talk to naive academics who cannot communicate in their language.

The survey revealed that job applicants in Business Marketing have a reputation for poor conceptual and methodological skills. If true, it may be because strong quantitative methodologists are drawn to areas where greater quantities of data can easily be collected. There are fewer (although larger economic-value) transactions in the business marketplace and many of those transactions do not take place through public channels like supermarkets where bar code scanners readily collect such data. Hence, many good quantitative methodologists may be drawn away from doing research in Business Marketing, while few highly skilled qualitative researchers to date have exploited the research opportunities that this area provides.

What are schools doing about the situation? Generally they opt to self clone. Top tier institutions focus primarily on research and stress methodology. Individuals from those institutions rarely go into Business Marketing for the reasons that we have noted. Teaching intensive schools stress substantive issues over fundamental research training in their PhD programs. Individuals graduating from those institutions may therefore lack the conceptual and methodological skills to become top quality researchers.

So what can individuals and schools do to improve the situation; to increase the proportion of Marketing PhDs focusing on Business Marketing and be sure that such individuals are close to the Pareto frontier of quality in substantive knowledge, conceptual skills, and methodological training? We make a few suggestions below in order to provoke further discussion, and hopefully some action.

For Business Schools

School Recommendation 1: Recruit Actively and Non-Traditionally

The lack of "quality" PhD student prospects will not cure itself. The individuals who can become good Business Marketing scholars may not be inclined toward the field. Therefore active recruitment is important. Sociologists and anthropologists are ideal candidates to do qualitative work in Business Marketing. Engineers and those specializing in the hard sciences can bring technical and methodological skills to the table. Many of these people will need to be courted to get them to consider entering a Marketing PhD program. And joint PhD programs with technical departments (much like MD/PhDs for medical researchers) might be an exciting and viable option for some.

School Recommendation 2: Internships, Sabbaticals, and Post-Docs

Internships, sabbaticals, and Post-Docs may help (aspiring) scholars to become knowledgeable in Business Marketing. We feel that industry internships during PhD programs as well as post-doctoral appointments and sabbatical leaves in industry should be actively considered and encouraged as part of legitimate doctoral training. A number of the ISBM sponsoring institutions have expressed interest in such programs and are awaiting nominations from academia.

School Recommendation 3: Rethink Reward Systems

Too many schools count publications as surrogates for research quality. Schools must signal to junior scholars that they will reward small sample studies with the longer lead time that primary data collection demands. Business researchers must navigate the relevance-rigor frontier and need metrics for relevance that are appropriate for Business Marketing. Some academic departments have enacted practitioner advisory boards. Getting such boards involved in the faculty review process, even in an advisory capacity, could provide a more balanced reward system. A changed reward system should evaluate research on its merit and not on its volume.

For Prospective PhDs (and recent graduates)

Candidate Recommendation 1: Partner Early and Often

Because the mixture of conceptual, methodological and substantive skills are difficult to find in one individual, Business Marketing scholars should be encouraged to form research partnerships early in their careers. For example, industry internships should be used to generate research sites. Broaden the structure of your coursework and your PhD committee: consider having members from science and engineering as well as statistics and economics on those committees. Consider doing collaborative research during the PhD program with folks in other business functions (operations and logistics in particular) as well as in the sciences and technology areas.

Candidate Recommendation 2: Focus on Real Problems

Both the academic and practitioner communities in Business Marketing are intolerant of research on toy problems. Convenience samples of purchasing agents and laboratory studies with undergraduates or MBAs as surrogate organizational buyers have little credibility. Ask a good research question and do the research the right way, which may not be the easy way. The reward will be in the long run.

Candidate Recommendation 3: Consider Industry Employment

PhDs in Marketing have traditionally focused on academic appointments as the focus of their educational programs. In the engineering disciplines, however, it is common for the bulk of graduates to get their first jobs in industry. Increasing industry appointments for Business Marketing PhDs may force more relevance into doctoral training and close the relevance-rigor gap.

CONCLUSIONS

In this paper we have attempted to understand where PhD programs in Business Marketing are today and how they can be improved. We looked at those programs within the historical context of PhD education in Business in general and Marketing programs in particular.

Not surprisingly, we have identified many deficiencies and challenges for Marketing PhD programs in general and for Business Marketing PhDs in particular. For the latter, the need for relevance and substantive understanding of problem areas combines with the often inaccessible nature of the marketplaces to provide substantial research challenges.

PhD education in business is based on the premise that active, high quality research in a discipline is a necessary ingredient for high quality teaching at a university level. We strongly concur and most of our recommendations focus around mechanisms for enhancing such research.

There is no single solution here. Schools have been making and must continue to make critical tradeoffs, although schools should make their positions clear:

> Unless doctoral programs can identify the specific types of business schools that would provide the most supportive environments (niches) for their graduates, they are destined to contribute to frictions between producers and users of the products of doctoral education (Alutto 1993, p. 40) . . . We can no longer act as though all schools of business have identical missions and operational values, nor can we continue to assume that all doctoral programs are, or should be, very similar. (Alutto, p. 42)

On a positive note, many of the criticisms leveled at business schools about their lack of concern with relevance appear to be misguided. Business schools are deeply concerned about their constituencies and the needs of the business community in particular. And they are modifying their programs in response. Those modifications are taking place slower than some might want, but academia has both the luxury and responsibility to take a more careful, longer term perspective. We hope that some schools and prospective Business Marketing scholars decide to make some of the changes we have suggested, and do what is important to do and not just what is expedient.

REFERENCES

Alutto, Joseph A. (1993), "Whither Doctoral Business Education? An Exploration of Program Models," *Selections* 9 (3), 37-43.

Arden House Report (1956), *Faculty Requirements and Standards in Collegiate Schools of Business*. Minneapolis: American Association of Collegiate Schools of Business.

Byrt, William (Ed) (1989), *Management Education: An International Survey.* New York: Routledge.

Dulek, Ronald E. and John S. Fielden (1992), "Why Fight the System: The Non-Choice Facing Beleaguered Business Faculties," *Business Horizons* 35 (5), 13-19.

Gordon, Robert A. and James E. Howell (1959), *Higher Education for Business*. New York: Columbia University Press.

Graduate Management Admission Council (1992), "Current Issues in Business Doctoral Education: A Report on the Dallas Invitational Conference," *Selections* 9 (1), 10-26.

Hasselback, James R. (1995), *The Wiley Guide to Marketing Faculty.* New York, NY: Wiley.

Kozelka, R. (1954), *Professional Education for Business*. Minneapolis: American Association of Collegiate Schools of Business.

Leavitt, Harold (1993), "The Business School and the Doctorate," *Selections* 9 (2), 12-21.

Madansky, Albert (1994), "Fine Tuning the Business School Doctorate: Who Should Do It?," *Selections* 11 (1), 4-7.

Marshall, Leon C. (Ed) (1928), *The Collegiate School of Business*. Chicago: University of Chicago Press.

May, Robert G. (1994), "Internationalizing Business Doctoral Education: Bringing Down the Barriers," *Selections*, 11 (1), 1-3.

Pierson, F.C. (1959), *The Education of American Businessmen*. New York: McGraw-Hill.

Porter, Lyman W. and Lawrence E. McKibben (1988), *Management Education and Development: Drift or Thrust Into the 21st Century.* New York: McGraw Hill.

Slater, Courtenay M. (1996), *Business Statistics of the United States*. Lanham, MD: Bernan Press.

West, Richard (1991), "A Response to Harold Leavitt's Article: Good Diagnosis, Bad Prescription," *Selections* 8 (1), 17-22.

West, Richard W. (1992), "Doctoral Education in Business: Improving the Teacher of Our Teachers," *Selections* 9 (1), 27-31.

APPENDIX 1: List of Responding Schools

Aarhus School of Business (Denmark)
University of Arizona
Arizona State University
Australian Graduate School of Management*
University of California, Irvine
Catholic University of Leuven (Belgium)*
Chung Nam National University (South Korea)*
University of Cincinnati
Columbia
Copenhagen Business School (Denmark)*
Erasmus University (Holland)
University of Florida
Florida State University
Georgia State University*
University of Illinois, Champaign
University of Innsbruck (Austria)
University of Liege (Belgium)
University of Linz (Austria)*
London Business School*
Louisiana State University
Massachusetts Institute of Technology
University of Muenster (Germany)*
Nanyang Business School (Singapore)
University of Nebraska
New Mexico State University
University of North Carolina, Chapel Hill
University of North Texas
Northwestern University
Norwegian School of Economics and Business Administration
University of Oregon
University of Otago (New Zealand)
Penn State University
University of Pennsylvania
Purdue University*
University of South Carolina
University of Southern California
University of Texas, Austin*
University of Western Ontario*
University of Wisconsin, Madison
University of Wollongong (Australia)
Yale University

*We classified this school as having an emphasis on Business-to-Business Marketing (25% or more of faculty and students are involved in this field).