Guest Editorial
The History of Marketing Science: Beginnings

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Introduction
The field of marketing science has a rich history of modeling marketing phenomena using the disciplines of economics, statistics, operations research, and other related fields. Since it is roughly 50 years from its origins, it is timely to review the accomplishments of marketing scientists in a number of research areas.

This history has not gone previously unnoticed. A number of fascinating retrospective articles about the origins of the field of marketing science authored by some of its pioneers appeared in a special section of the Fall 2001 issue of Marketing Science. An article by Steckel and Brody highlighted the importance of understanding the history of any field. They noted three reasons: (1) understanding our history is just simply interesting as would be finding our genealogical roots, (2) history helps us to better understand how a field evolves and why it is where it is now, and (3) history also aids our predictions of where a field is headed.

An excellent example of the first reason is to wonder at the evolution of the kind of data that have become available to researchers. If you were modeling consumer choice behavior in the 1960s and 1970s, you were pretty much limited to a few diary panel data sets. This evolved to the now famous IRI scanner panel coffee data in the 1980s and 1990s. In the 21st century, we have almost unlimited data from comScore on e-commerce choice behavior. Similarly, advertising effects research has moved from a few publicly-available data sets on cigarettes and the Lydia Pinkham Company’s “vegetable compound” to multi-channel advertising data including online and mobile advertising exposure.

The Origins of Marketing Science
The earliest contributions to what we call today marketing science came from outside the field, usually from faculty trained in operations research / management science and residing in engineering departments, not business schools. Some of the papers were published in marketing journals such as the Journal of Marketing. An example is “Application of Operations Research to Marketing and Related Management Problems” (Magee, 1954), but most were published in journals like Operations Research or Management Science (see, for example, Anshen, 1956; Brown, Hulswitt, and Kettelle, 1956; Vidale and Wolfe, 1957).

There is general agreement that a Ford Foundation report written in 1959 by UC Berkeley economist Robert Gordon and Stanford professor James Howell sharply critical of American business education provided the catalyst for bringing a more rigorous
approach to research in marketing conducted by faculty in business schools. This report, *Higher Education for Business*, coincided with a Ford Foundation-supported entity called the Institute of Basic Mathematics for Application to Business that was jointly run by the Harvard Business School and MIT’s then-named School of Industrial Management. Ford provided fellowships for interested business school faculty to take one-year sabbaticals to improve their skills in quantitative analysis and the social sciences. The goal of these programs was to “raise teachers’ and students’ receptivity for quantitative methods to such a point that these methods will be incorporated, wherever appropriate, into the teaching of production, marketing, accounting, finance, and other recognized areas of business” (Carroll, 1958).

Fortunately for the field of marketing, five of the attendees who took advantage of the Institute were Frank Bass (Purdue), Edgar Pessemier (Purdue), Robert Buzzell (Harvard), Ronald Frank (Chicago), and Philip Kotler (Northwestern). These founding “fathers” were complemented by a number of other prominent early marketing scientists including John Little (MIT), Paul Green (Wharton), Alfred Kuehn (CMU), William Massy (CMU, Stanford), Al Silk (Northwestern, Chicago), Glen Urban (MIT), David Montgomery (MIT, Stanford), Don Morrison (Columbia), and John Farley (Chicago, CMU). While this group produced many seminal contributions to the field, important contributions were also made by marketing science textbooks that were influential in doctoral programs. These included Bass et al. *Mathematical Models and Methods in Marketing* (1961), Buzzell *Mathematical Models and Marketing Management* (1964), Frank et al. *Quantitative Techniques in Marketing Analysis* (1962), Day and Parsons (1970) *Marketing Models: Quantitative Applications*, Urban and Montgomery *Management Science in Marketing* (1969), Massy, Montgomery, and Morrison *Stochastic Models of Buyer Behavior* (1970), and Kotler *Marketing Decision Making* (1971). Fortunately, most of these highly-influential scholars are still alive today and providing valuable counsel to their younger colleagues.

**The Marketing Science Institute**

Soon after the release of the Ford Foundation report, in 1962, the Marketing Science Institute (MSI) was founded in Philadelphia by Thomas McCabe Sr., the former President of Scott Paper Company, with the assistance of Professors Wroe Alderson (Wharton), John Howard (Columbia), and Albert Wesley Frey (Pittsburgh). The original goals of MSI were stated by McCabe (Wind, 2011):

> Our progress in the science of marketing in my opinion has not kept pace with our evolution in the physical sciences...we lack the knowledge necessary to meet the sales challenges that face us...the time has never been more appropriate, the need never greater for the establishment of an independent institute to accelerate the rate at which scientific techniques are being applied to marketing activities.

Twenty-nine companies signed up for 5-year charter memberships. Although not stated explicitly, from the beginning, MSI’s objective was to bridge the gap between academia and practice while maintaining rigor and relevance in research.

In 1968, MSI moved from Philadelphia to Cambridge and established a formal relationship with Harvard Business School. Its publication emphasis shifted from monographs to working papers and the funding of projects in areas that needed new research perspectives. Examples of these projects included
work on market segmentation (James Taylor), product life cycles (Victor Cook), new product development (Pessemier), market definition (George Day and Allan Shocker), and the well-known PIMS (Profit Impact of Marketing Strategy) project (Buzzell).

A major shift in its approach to supporting academic research was initiated in the mid-1970s when MSI instituted a bi-annual research priorities program to focus its support for academic research towards marketing problems that trustees from its member companies indicated were of current importance. The first 5 priorities developed by the then Executive Director, Stephen Greyser, were Marketing Management (e.g., market structure), Marketing and Economics (e.g., study of advertising/promotion elasticities), Marketing Models and Methods (e.g., new methods for measuring effectiveness of TV commercials), Communications and Consumer Behavior (e.g., prediction of consumer purchase behavior), and Distribution (e.g., current developments in electronic point of sale terminals and retail inventory controls).

MSI has had an enormous impact on both the marketing science and consumer behavior communities (Low, 2011). Areas that MSI has been particularly successful in supporting have been services, channels, strategy, and pricing. In addition, a time-series analysis of the impact of the research priorities shows a significant lagged impact of the priorities on MSI working papers and, importantly, publications based on those working papers.

**TIMS Marketing College / ISMS**

The TIMS Marketing College was founded in 1967 as the professional organization for academics and practitioners interested in the “application of scientific methods to marketing problems” (Montgomery, 1967). The founding of the “TIMS College” was the confluence of three forces: (1) Growth in the number of marketing articles appearing in *Management Science*, which was published by The Institute for Management Science (TIMS), (2) Growth in the intellectual capital of the field, represented not only by articles but significant books such as those mentioned earlier. (3) The budding link between academia and industry in the development of scientific methods for marketing.

The link between academia and industry was fundamental and pervasive. For example, Buzzell’s book documents the application of linear programming to media selection, the measurement of advertising effects, and cases representing industry practice. As noted above, MSI had been founded to bridge industry and practice. The senior academics entering the field had a distinct managerial orientation; implementation was high priority. It was no wonder that the 1968 census of the TIMS College membership identified 71 members from industry among the total of 148 members.

While the ingredients for a professional organization of academics and practitioners were present, it took human effort to mix the ingredients together. David Montgomery, then a junior faculty member at MIT, was a key contributor, encouraged by John Little. Paul Green, George Haines, James Heskett, John Little, William Massy, Al Silk, Martin Starr, Leonard Simon, as
well as Dave Montgomery comprised the Planning Board for launching the TIMS College. Numerous others provided encouragement, time, and effort. The culture of “stepping up”, which to this day characterizes the ISMS membership, was firmly rooted in this formative period.

The TIMS College undertook several initial activities, perhaps the most important of which was the organization of the marketing track of sessions at the TIMS meetings. The TIMS College also published a newsletter to keep its members informed.

As the years progressed, so did the field. For the period 1966-1972, the number of marketing articles in Management Science increased from 5 and 10 in the previous seven-year periods to 37. Included among these papers were the now classic “A New Product Growth Model of Consumer Durables” (Bass, 1969), and “Models and Managers: the Concept of a Decision Calculus” (Little, 1970). These and other articles published in this era clearly were scientific and simultaneously linked to practice. The culmination of this was the 1971 Special Issue of Management Science which included nine marketing papers, several of which focused on sales force management.

The stage was now set for the two seminal contributions of the TIMS Marketing College: the annual Marketing Science conference, and the founding of the journal Marketing Science.

The first Marketing Science conference was held in the spring of 1979 at Stanford, with Dave Montgomery and Dick Wittink serving as chairs. The conference was titled, “Marketing Measurement and Analysis” (there was perhaps hesitation that some might perceive “Marketing Science” as an oxymoron).¹ The conference drew 120 attendees, with 11 of the 40 papers authored by practitioners, and several practitioner panels. The conference was a huge success in the quality of the work presented and in the “buzz” it created. Hosts quickly lined up for follow-ups, and included UT Austin, NYU, Wharton, USC, and Chicago. The conference was formally titled “The Marketing Science Conference” in 1983 when it was hosted at USC. Attendance soon increased to the 300s-400s.

As the field grew, it became apparent to the TIMS college leaders that the supply of good work was exceeding capacity of Management Science as well as Operations Research and JMR, which also published marketing science papers. Frank Bass and John Little asked Donald G. Morrison to chair a committee for investigating the feasibility of a new journal. Working during 1979, the committee concluded a new journal was warranted, to be entitled Marketing Science. Donald Morrison was appointed Editor, with Seenu Srinivasan, Subrata Sen, and Jerry Wind as area editors. In Morrison’s words, “we wish to publish high quality quantitatively oriented papers in the areas of marketing models, measurement, theory, and applications.”² Submissions started arriving in late 1980, and the first issue was published in 1982. The lead article was “NEWS: A Decision Oriented Model for Product Analysis and Forecasting”, by Lew Pringle, Dale Wilson, and Ed Brody. The next two articles were “A Marketing Decision Support System for Retailers,” by Len Lodish, and “Maximum Likelihood Estimation for an Innovation Diffusion Model of New Product Acceptance,” by Dave Schmittlein and Vijay Mahajan.

¹ See Wittink’s article in the Fall 2001 issue of Marketing Science.
The marriage of science and practice was clearly evident in these articles.

An important institutional development along the way was the merger of TIMS and ORSA (Operations Research Society of America). While the TIMS College was obviously a part of TIMS, ORSA also sponsored a quantitative journal – Operations Research – that had a long history of publishing marketing articles and overlapped with TIMS in other subject areas as well. During the 1970s-1990s, the two organizations began to sponsor joint meetings (the ORSA/TIMS conference) as well as joint journals (Marketing Science was in fact co-published by TIMS and ORSA). Eventually, two governing bodies became burdensome and redundant. ORSA and TIMS merged in 1995; the new organization was called “The Institute for Operations Research and Management Science”: INFORMS. The TIMS Marketing College was now the INFORMS College on Marketing.

ISMS built upon its predecessor and expanded its activities. The major ones include:

- **Marketing Science Conference:** ISMS continues to sponsor the conference, which topped 900 in attendance at the 2012 conference hosted by Boston University. The 2013 conference in Istanbul topped 600.
- **Doctoral Consortium:** ISMS continues to sponsor this gathering of 90-100 Ph.D. students, held the day before the beginning of the Marketing Science Conference.

- **Doctoral Dissertation Proposal Competition:** ISMS recognizes up to five dissertation proposals annually as the best dissertation proposals on important marketing issues. Each award carries with it $5000 in support. One of the awards is funded by the Vithala R. and Saroj V. Rao Endowment. Another has recently been supported by the Sheth Foundation.
- **Practice Prize Competition:** ISMS sponsors a competition to recognize “outstanding implementation of marketing science concepts and methods.”
- **Journal Support:** Originally the TIMS College, and subsequently ISMS, provided financial support for the journal Marketing Science. Once Marketing Science became self-sustaining, this support was no longer needed. However, ISMS occasionally supports special efforts such as the Management Science special issue, “Marketing within the Enterprise and Beyond” (2011), and provided funding for Journal of Marketing Research to temporarily expand its capacity to expedite the publication of accepted papers.

- **Dissertation Proposal Award** to the winners of the Dissertation Proposal Competition.
- **Buck Weaver Award** for lifetime contribution to theory and practice in the development of rigor and relevance in marketing science.

As can be seen, marketing science has rich history and, hopefully, an exciting future.

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References

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