

National Taiwan University
Graduate Institute of International Business
Seminar on Marketing Management 2
Marketing Models

Autumn 2008

Instructor: Lichung Jen
☎ : (02) 3366-4983 FAX : (02) 2363-8439
E-mail: lichung@management.ntu.edu.tw
Office Hours: 2~5pm. Monday

COURSE DESCRIPTION

Marketing Decision Models is a study of recent model-based research in the marketing literature. The perspective developed in Marketing Management, Marketing Research, and Econometrics, provides a useful base for the investigation of research literature. The objectives of this course are the following:

1. Develop an awareness of the current level of understanding and state of research in several areas of marketing study. It is hoped that pursuit of this goal will provide the student with a greater understanding of marketing itself, as new questions are posed from the modeling perspective.
2. Develop the ability to read and understand the current research literature. Pursuit of this goal will provide a familiarity with research procedure as it is applied to marketing. This background should be very useful as the student begins to design and execute research program.
3. Generate a framework of evaluation of research. This framework will enable the student to make best use of future developments in the marketing literature.

READING ASSIGNMENTS

Text:

1. Leeflang, Peter S.H., Dick R. Wittink, Michel Wedel, and Philippe A. Naert (2000), *Building Models for Marketing Decisions*, Lower Academic Publishers, Norwell, MA.
2. Gary L Lilien, Philip Kotler, and K Sridhar Moorthy (1992), *Marketing Models*, Prentice Hall, NY.
3. Robert C. Blattberg and Scott A. Neslin (1990), *Sales Promotion: Concepts, Methods, and Strategies*, Prentice Hall, NY.

Articles from:

Journal of Marketing Research
Marketing Science
Management Science
Other journals

STUDENT ASSIGNMENTS

In addition to preparation of the reading assignment, each student will prepare a written evaluation of one article each week. This weekly assignment should be in typed form, have a maximum length of three pages, and is due at the beginning of the class session. (Late papers will not be accepted.) The written evaluation should be prepared for a

reader who has read the original article. Therefore, this evaluation should not be seen as a summary or review piece. Primary dimensions on which these papers will be graded are depth of the evaluation, completeness, strength of the logic supporting the arguments, and clarity of presentation. In reality, these papers are similar to a response you would give if you were reviewing a manuscript for an academic journal OR for a research firm's proposal competition.

CLASS SESSIONS

The sessions will be discussion oriented with each student exploring ideas and questions proposed by others and exposing his/her own ideas and questions for investigation by others. Each session will focus on one marketing topic area. Discussion will center on the reading assignments. Each student is expected to have thought seriously about both the modeling and the marketing issues relevant to each piece. Each student is expected to participate in the discussion of all materials, and not just relate ideas presented in the assigned written review of one paper. (This is not a "show and tell" for the article you reviewed.)

TERM PAPER

Each student will be required to turn in a typed formal research proposal designed to advance a major theoretical or methodological issue considered in this course. It is to be a proposal for research that can actually be carried out by you while you are in the MBA or Ph.D. program. This proposal will be expected to include an up-to-date literature review and hypotheses (e.g. a better research framework or model) which follow directly from that literature review. In addition, a research design should be specified which provides a test of the implications of these hypotheses. A section on limitations may be advisable to treat weaknesses in the design as well as to incorporate changes or additions which would strengthen the design. A discussion section could be used to spell out the implications of the student's proposed research for understanding marketing models and to suggest implications for further research. The paper will be due, with enough copies for distribution to the other members of the class, at the beginning of class on the thirteenth week (December 27). An oral defense of the proposal will be presented in class at the last session (January 3).

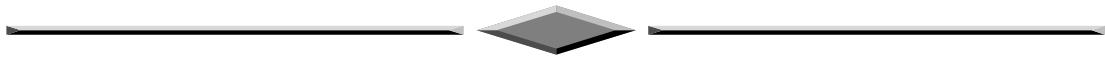
STUDENT EVALUATION

The evaluation of each student's performance in the course will be based on the quality of the written assignments, quality of the contribution to class discussion, performance on the final examination, and the term paper. Details of the comprehensive final exam will be provided in class. Approximate weights of the evaluation components are:

- 40% Oral Presentations and Written Reviews
- 10% Contribution to Class Discussion
- 15% Midterm Exam (in class on November 14, close books and notes)
- 20% Term Paper (due on January 9)
- 15% Final Exam (in class on January 16, close books and notes)

CLASS SCHEDULE

日期	主 題	日期	主 題
09/19	Overview	11/21	Lichung Jen's Week
09/26	Introduction to Marketing Models	11/28	Carryover Effects
10/03	Demand Analysis	12/05	Sales Promotion Models
10/10	National Holiday	12/12	Greg Allenby's Week
10/17	Models of Competition	12/19	Allocation Among Territories & Products
10/24	Market Segmentation	12/26	Pricing Models
10/31	New Products Development	01/02	Database Marketing
11/07	Advertising Models	01/09	Student Research Proposal Presentation
11/14	Midterm Exam	01/16	Final Exam

READING ASSIGNMENTS

- (Week 1 – September 19) Overview -
Lilien, Kotler, and Moorthy, Chapter 1, Appendices A and B.
Written and oral assignments.
- (Week 2 – September 26) Introduction to Marketing Models

READINGS	Written	Oral
0. Lilien, Kotler, and Moorthy, Chapter 2		
1. Little, "Models and Managers: Concept of a Decision Calculus," <i>Management Science</i> , Vol. 16, No. 8 (April 1979), pp. 466-485.		
2. Myers, Greyser, and Massey, "The Effectiveness of Marketing's 'R&D' for Marketing Management: An Assessment," <i>Journal of Marketing</i> , Vol. 43, No.1 (January 1979), pp. 17-29.		
3. Guadagni and Little, "A Logit Model of Brand Choice Calibrated on Scanner Data," <i>Marketing Science</i> , Vol. 2, No. 3 (Summer 1983), pp. 203-38.		
4. Little, "Decision Support Systems for Marketing Managers," <i>Journal of Marketing</i> , Vol. 43, No.3 (Summer 1979), pp. 9-27.		

3. (Week 3 – October 3) Demand Analysis

READINGS	Written	Oral
0. Lilien, Kotler, and Moorthy, Appendices C and D.		
1. Shoemaker, Staelin, Kadane, and Shoaf, "Relation of Brand Choice to Purchase Frequency," <i>Journal of Marketing Research</i> , Vol. 4, No. 4 (November 1977), pp. 458-468.		
2. Blattberg and Hoch, "Database Models and Managerial Intuition: 50% Model + 50% Manager," <i>Management Science</i> , Vol. 36, No.8 (August 1990), pp. 887-899.		
3. Vilcassim and Jain, "Modeling Purchase-Timing and Brand-Switching Behavior Incorporating Explanatory Variables and Unobserved Heterogeneity," <i>Journal of Marketing Research</i> , Vol. 28, No. 1 (February 1991), pp. 29-41.		
4. Allenby, "A Unified Approach to Identifying, Estimating and Testing Demand Structures with Aggregate Scanner Data," <i>Marketing Science</i> , Vol. 8, No.3 (Summer 1989), pp. 265-280.		
5. Allenby, Jen, and Leone, "Economic Trends and Being Trendy: The Influence of Consumer Confidence on Retail Fashion Sales," <i>Journal of Business & Economic Statistics</i> , Vol. 14, No. 1 (January 1966), pp. 103-111.		

4. (Week 4 – October 10) National Holiday

5. (Week 5 – October 17) Models of Competition

READINGS	Written	Oral
0. Lilien, Kotler, and Moorthy, Chapter 5.		
1. Wildt, "Multifirm Analysis of Competitive Decision Variables," <i>Journal of Marketing Research</i> , Vol. 11, No. 1 (February 1974), pp. 50-62.		
2. Bass, Cattin, and Wittink, "Firm Effects and Industry Effects in the Analysis of Market Structure and Profitability," <i>Journal of Marketing Research</i> , Vol. 15, No.1 (February 1978), pp. 3-10.		
3. Horsky, "Market Share Response to Advertising: An Example of Theory Testing," <i>Journal of Marketing Research</i> , Vol. 14, No.1 (February 1977), pp. 10-21.		
4. Gatignon, Anderson, and Helsen, "Competitive Reactions to Market Entry: Explaining Interfirm Differences," <i>Journal of Marketing Research</i> , Vol. 26, No.1 (February 1989), pp. 44-55.		
5. Houston and Weiss, "An Analysis of Competitive Market Behavior," <i>Journal of Marketing Research</i> , Vol. 11, No.2 (May 1974), pp. 151-155.		

6. (Week 6 – October 24) Market Segmentation

READINGS	Written	Oral
1. McCann, "Market Segment Response to the Marketing Decision Variables," <i>Journal of Marketing Research</i> , Vol. 11, No. 4 (November 1974), pp. 399-412.		
2. Wildt and McCann, "A Regression Model for Market Segmentation Studies," <i>Journal of Marketing Research</i> , Vol. 17, No. 3 (August 1980), pp. 335-340.		
3. Calantone and Sawyer, "The Stability of Benefit Segments," <i>Journal of Marketing Research</i> , Vol. 15, No. 3 (August 1978), pp. 395-403.		
4. Grover and Srinivasan, "An Approach to Tracking Within-Segment Shifts in Market Shares," <i>Journal of Marketing Research</i> , Vol. 26, No. 2 (May 1989), pp. 230-236.		
5. Jain, Bass, and Chen, "Estimation of Latent Class Models with Heterogeneous Choice Probabilities: An Application to Market Structuring," <i>Journal of Marketing Research</i> , Vol. 27, No. 1 (February 1990), pp. 94-101.		
6. Allenby and Ginter, "Using Extremes to Design Products and Segment Markets," <i>Journal of Marketing Research</i> , Vol. 32, No. ? (? 1995), pp. .		

7. (Week 7 – October 31) New Products Development

READINGS	Written	Oral
0. Lilien, Kotler, and Moorthy, Chapter 10.		
1. Bass, "A New Product Growth Model for Consumer Durables," <i>Management Science</i> , Vol. 15, No. 5 (January 1969), pp. 215-227.		
2. Rao and Yamada, "Forecasting with Repeat Purchase Diffusion Model," <i>Management Science</i> , Vol. 34, No. 6 (June 1988), pp. 734-752.		
3. Sultan, Farley, and Lehmann, "A Meta-Analysis of Applications of Diffusion Models," <i>Journal of Marketing Research</i> , Vol. 27, No. 1 (February 1990), pp. 70-77.		
4. Parker, "Choosing Among Diffusion Models: Some Empirical Evidence," <i>Marketing Letters</i> , Vol. 4, No. 1 (January 1993), pp. 81-93.		
5. Takada and Jain, "Cross-National Analysis of Diffusion of Consumer Durable Goods in Pacific Rim Countries," <i>Journal of Marketing</i> , Vol. 55, (April 1991), 48-54.		
6. Green and Srinivasan, "Conjoint Analysis in Marketing: New Developments with Implications for Research and Practice," <i>Journal of Marketing</i> , Vol. 54, (1990), 3-19.		

8. (Week 8 – November 7) Advertising Models

READINGS	Written	Oral
0. Lilien, Kotler, and Moorthy, Chapter 6.		
1. Assmus, Farley, and Lehmann, "How Advertising Affects Sales: Meta-Analysis of Econometric Results," <i>Journal of Marketing Research</i> , Vol. 11, No.1 (February 1984), pp. 65-74.		
2. Krishnamurthi and Raj, "The Effect of Advertising on Consumer Price Sensitivity," <i>Journal of Marketing Research</i> , Vol. 12, No.2 (May 1985), pp. 119-129.		
3. Tull, Wood, Duhan, Gillpatrick, Robertson, and Helgeson, "'Leveraged' Decision Making in Advertising: The Flat Maximum Principle and Its Implications," <i>Journal of Marketing Research</i> , Vol. 23, No. 1 (February 1986), pp. 25-32.		
4. Eastlack and Rao, "APPLICATIONS: Advertising Experiments in the Campbell Soup Company," <i>Marketing Science</i> , Vol. 8, No. 1 (Winter 1989), pp. 57-71. Dodson and McNiven, "Commentaries," <i>Marketing Science</i> , Vol. 8, No. 1 (Winter 1989), pp. 72-75. Eastlack and Rao, "Reply," <i>Marketing Science</i> , Vol. 8, No. 1 (Winter 1989), pp. 76-77.		
5. Leszczyc and Rao, "An Empirical Analysis of National and Local Advertising Effect on Price Elasticity," <i>Marketing Letters</i> , Vol. 1, No. 2 (June 1990), pp. 149-160.		
6. Moorthy, "Theoretical Modeling in Marketing," <i>Journal of Marketing</i> , Vol. 57, No. 2 (April 1993), pp. 92-106.		

9. (Week 9 – November 14) Midterm Exam

10. (Week 10 – November 21) Lichung Jen's Week

READINGS	Written	Oral
1. Jen, Lichung, Ting-Ling Lin, Ching-I Chen, and Jey-Jen Lee (2005), <u>The Optimal Resources Allocation between Product Value Creation and Marketing Value Appropriation Activities in High-Tech Industry</u> , <i>Sun Yat-sen Management Review</i> , forthcoming.		
2. Jen, Lichung, Ching-I Chen, and Chen-Yeh Chen (2005), <u>Constructing Competitive Map by Using Mixture Cluster Multi-Nominal Logistic Regression Model</u> , <i>Taiwan Academy of Management Journal</i> , forthcoming.		
3. Jen, Lichung, Ching-I Chen, and Chih-Ping Wang (2005), <u>Individualized New Product Recommendation System: A Comparison and Integration of Behavior-Based and Recognition-Based Approaches</u> , <i>Taiwan Journal of Marketing Science</i> , forthcoming.		
4. Jen, Lichung, Chien-Heng Chou, and Greg M. Allenby (2003), <u>A Bayesian Approach to Modeling Purchase Frequency</u> , <i>Marketing Letters</i> , Vol. 14, No. 1, p. 5~20.		
5. Jen, Lichung, Shih-Ju Wang, and Jau-Rung Wu (2002), <u>Export Performance and Global Competitive Positioning: The Influence of Host-Country Consumer Confidence and Purchasing Power</u> , <i>Taiwan Academy of Management Journal</i> , Vol. 2, No. 1, p. 53~68.		
6. Jen, Lichung and Chueh-Ann Hsieh (2002), <u>An Integrated Framework of Combining Market Structure and Behavior Dimensions for Selecting Representative Test Market</u> , <i>Sun Yat-sen Management Review</i> , Vol. 10, No. 2, p. 355~377.		
7. Jen, Lichung and Shih-Ju Wang (1998), <u>Incorporating Heterogeneity in Customer Valuation: An Empirical Study of Health Care Direct Marketing in Taiwan</u> , <i>International Journal of Operations and Quantitative Management</i> , Vol. 4, No. 3, pp. 217~228.		

11. (Week 11 – November 28) Carryover Effects

READINGS	Written	Oral
1. Clarke, "Econometric Measurement of the Duration of Advertising Effect on Sales," <i>Journal of Marketing Research</i> , Vol. 13, No. 4 (November 1976), pp. 345-357.		
2. Magat, McCann, and Morey, "When Does Lag structure Really Matter in Optimizing Advertising Expenditures?," <i>Management Science</i> , Vol. 32, No.2 (February 1986), pp. 182-193. Bultez and Naeert, "When Does Lag Structure Really Matter ... Indeed?," <i>Management Science</i> , Vol. 32, No.2 (February 1986), pp. 909-916. Magat, McCann, and Morey, "Reply," <i>Management Science</i> , Vol. 34, No.7 (July 1988), pp. 917-918.		
3. Weiss and Windal, "Testing Cumulative advertising Effects: A Comment on Methodology," <i>Journal of Marketing Research</i> , Vol. 17, No. 3 (August 1980), pp. 371-378.		
4. Gatignon, "Competition as a Moderator of the Effect of Advertising on Sales," <i>Journal of Marketing Research</i> , Vol. 21, No. 4 (November 1984), pp. 387-398.		
5. Givon and Horsky, "Untangling the Effects of Purchase Reinforcement and Advertising Carryover," <i>Marketing Science</i> , Vol. 9, No. 2 (Spring 1990), pp. 171-187.		
6. Mesak, "An Aggregate Advertising Pulsing Model with Wearout Effects," <i>Marketing Science</i> , Vol. 11, No. 3 (Summer 1992), pp. 310-326.		

12. (Week 12 – December 5) Sales Promotion Models

READINGS	Written	Oral
0. Lilien, Kotler, and Moorthy, Chapter 7.		
1. Blattberg, Eppen, and Lieberman, "A Theoretical and Empirical Evaluation of Price Deals for Consumer Nondurables," <i>Journal of Marketing</i> , Vol. 45, No. 4 (Winter 1981), pp. 116-129.		
2. Bemmaor and Mouchoux, "Measuring the Short-Term Effect of In-Store Promotion and Retail Advertising on Brand Sales: A Factorial Experiment," <i>Journal of Marketing Research</i> , Vol. 28, No. 2 (May 1991), pp. 202-214.		
3. Kinberg, Rao, and Shakun, "A Mathematical Model for Price Promotions," <i>Management Science</i> , Vol. 20, No. 6 (February 1974), pp. 948-959.		
4. Krishna, Currim, and Shoemaker, "Consumer Perceptions of Promotional Activity," <i>Journal of Marketing</i> , Vol. 55, (April 1991), pp. 4-16.		
5. Walters, "Assessing the Impact of Retail Price Promotions on Product Substitution, Complementary Purchase, and Interstore Sales Displacement," <i>Journal of Marketing</i> , Vol. 55, (April 1991), pp. 17-28.		

13. (Week 13 – December 12) Greg M. Allenby's Week

READINGS	Written	Oral
1. Allenby, Greg M., Neeraj Arora, and James L. Ginter (1995), <u>Incorporating Prior Knowledge into Analysis of Conjoint Studies</u> , <i>Journal of Marketing Research</i> , 32, 152-162.		
2. Allenby, Greg M., Robert P. Leone, and Lichung Jen (1999), <u>A Dynamic Model of Purchase Timing with Application to Direct Marketing</u> , <i>Journal of American Statistics Association</i> , Vol. 93, No. 446, pp.365~374.		
3. Arora, Neeraj and Greg M. Allenby (1999), <u>Measuring the Influence of Individual Preference Structures in Group Decision Making</u> , <i>Journal of Marketing Research</i> , 36, 476-487.		
4. Yang, Sha and Greg M. Allenby (2000), <u>A Model for Observation, Structural and Household Heterogeneity in Panel Data</u> , <i>Marketing Letters</i> , 11(2), 137-149.		
5. Rossi, Peter E. and Greg M. Allenby (2003), <u>Bayesian Statistics and Marketing</u> , <i>Marketing Science</i> , Vol. 22, p.304-328.		
6. Gilbride, Timothy J. and Greg M. Allenby (2004) <u>A Choice Model with Conjunctive, Disjunctive, and Compensatory Screening Rules</u> , <i>Marketing Science</i> , 23(3), 391-406.		

14. (Week 14 – December 19) Allocation Among Territories and Products

READINGS	Written	Oral
0. Lilien, Kotler, and Moorthy, Chapter 8.		
1. Cravens, Woodruff, and Stamper, "An Analytical Approach for Evaluating Sales Territory Performance," <i>Journal of Marketing</i> , Vol. 36, No. 1 (January 1972), pp. 31-37.		
2. Wittink, "Exploring Territorial Differences in the Relationship Between Marketing Variables," <i>Journal of Marketing Research</i> , Vol. 14, No. 2 (May 1977), pp. 145-155.		
3. Ryans and Weinberg, "Territory Sales Response," <i>Journal of Marketing Research</i> , Vol. 16, No. 4 (November 1979), pp. 453-465.		
4. Doyle and Saunders, "Multiproduct Advertising Budgeting," <i>Marketing Science</i> , Vol. 9, No. 2 (Spring 1990), pp. 97-113.		
5. Rangaswamy, Sinha, and Zoltners, "An Integrated Model-Base Approach for Sales Force Structuring," <i>Marketing Science</i> , Vol. 9, No. 4 (Fall 1990), pp. 279-298.		
6. Mantrala, Sinha, and Zoltners, "Impact of Resource Allocation Rules on Marketing Investment-Level Decision and Profitability," <i>Journal of Marketing Research</i> , Vol. 29, No. 2 (May 1992), pp. 162-175.		

15. (Week 15 – December 26) Pricing Models

READINGS	Written	Oral
0. Lilien, Kotler, and Moorthy, Chapter 4.		
1. Tellis, "The Price Elasticity of Selective Demand: A Meta-Analysis of Econometric Models of Sale," <i>Journal of Marketing Research</i> , Vol. 25, No. 4 (November 1988), pp. 331-341.		
2. Blattberg and Wisniewski, "Price-Induced Patterns of Competition," <i>Marketing Science</i> , Vol. 8, No. 4 (Fall 1989), pp. 291-309.		
3. Paker, "Price Elasticity Dynamics Over the Adoption Life Cycle," <i>Journal of Marketing Research</i> , Vol. 29, No. 3 (August 1992), pp. 358-367.		
4. Paker, "Pricing Strategies in Markets with Dynamic Elasticities," <i>Marketing Letters</i> , Vol. 3, No. 3 (July 1992), pp. 227-238.		
5. Simon, "PRICESTRAT- An Applied Strategic Pricing Model for Nondurables," <i>TIMS/Studies in the Management Science</i> 18, 1982, pp. 23-41.		
6. Reibstein and Gatignon, "Optimal Product Line Pricing: The Influence of Elasticities and Cross-Elasticities," <i>Journal of Marketing Research</i> , Vol. 21, No. 3 (August 1984), pp. 259-67.		

16. (Week 16 – January 2) Database Marketing

READINGS	Written	Oral
1. Jen, Allenby, and Leone, "Customer Valuation: A Hierarchical Bayes Approach for Estimating Recency, Frequency and Monetary Value in Direct Marketing," working paper, The Ohio State University, 1996.		
2. Morrison and Schmittlein, "Generalizing the NBD Model for Customer Purchases: What are the Implications and Is It Worth the Effort?", <i>Journal of Business & Economic Statistics</i> , Vol. 6, No. 2 (April 1988), pp. 145-166.		
3. Schmittlein and Peterson, "Customer Base Analysis: An Industrial Purchase Process Application," <i>Marketing Science</i> , Vol. 13, No. 1 (Winter 1994), pp. 41-67.		
4. Blattberg and Deighton, "Interactive Marketing: Exploiting the Age of Addressability," <i>Sloan Management Review</i> , (Fall 1991), pp. 5-14.		

17. (Week 17 – January 9) Student Research Proposal Presentations.

You must each read and be prepared to discuss each student's written research proposal. Each proposal writer is expected to briefly present key aspects of the proposal, explain its contribution and respond to questions, criticisms and suggestions.

18. (Week 18 – January 16) Final Examination.