

National Taiwan University

國際企業學系暨研究所

統計碩士學位學程

Spring 2026

大數據行銷

(Big Data Marketing)

數據驅動之市場分析

(Big Data-Driven Market Analytics)

策略性資料庫行銷決策模式

(Decision Models for Strategic Database Marketing)

任立中(Lichung Jen)

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COURSE DESCRIPTION

Big Data Marketing is a study of recent data/model-driven research in the academic marketing literature and in the practice of e-commerce. The perspective developed in Marketing Management, Statistical Decision Science, and Computer Science (esp. the Big Data in Web Warehousing) 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 database marketing study. It is hoped that pursuit of this goal will provide the student with a greater understanding of database marketing itself, as new questions are posed from the practice 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 big data marketing. This background should be very useful as the student begins to design and execute research program in the content of e-commerce.

COURSE PREREQUISITES:

1. Marketing Management
 2. Statistics
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COURSE MATERIALS:**Textbook**

1. 任立中，陳靜怡(2019)，大數據行銷：邁向智能行銷之路 (*BIG DATA MARKETING: THE ROAD TO AI MARKETING*)，前程文化，臺北市。

**Reference Books**

1. 任立中，周建亨，陳靜怡(譯)，2016年12月，行銷人攀越的7個頂峰，前程文化，臺北市。
2. 任立中主編，2016年10月，大數據戰略4.0，前程文化，臺北市。
3. 任立中，陳靜怡(2015)，行銷研究：發展有效行銷策略之基石，前程文化，臺北市。
4. 任立中(2010)，行銷源典，前程文化，臺北市。
5. Blattberg, Robert C., Byung-Do Kim, and Scott A. Neslin (2008), *Database Marketing: Analyzing and Managing Customers*, Springer, New York, NY.
6. Aaker, David A., V. Kumar, George S. Day, and Robert P. Leone (2011), *Marketing Research*, 10th edition, John Wiley & Sons, Inc.
7. Rossi, Peter E., Greg Allenby, and Rob McCulloch (2005), *Bayesian Statistics and Marketing*, John Wiley and Sons, New York, NY.
8. Leeflang, Peter S.H., Dick R. Wittink, Michel Wedel, and Philippe A. Naert (2000), *Building Models for Marketing Decisions*, Lower Academic Publishers, Norwell, MA.
9. Blattberg, Robert C., Gary Getz, and Jacquelyn S. Thomas (2001), *Customer Equity: Building and Managing Relationships as Valuable Assets*, Harvard Business School Press, Boston, Massachusetts.
10. Lilien, Gary L. and Arvind Rangaswamy (2003), *Marketing Engineering: Computer-Assisted Marketing Analysis and Planning*, Pearson Education, NJ.
11. Koch, Richard (1998), *The 80/20 Principle: The Secret of Achieving More with Less*, Doubleday, New York, NY.

STUDENT EVALUATION

The evaluation of each student's performance in the course will be based on the quality of the homework, performance on the online course materials, and the term paper. Details of the comprehensive homework will be provided in class. Approximate weights of the evaluation components are:

5%	Class Attendance (three sessions in total)
65%	Weekly Homework (approximately 10 assignments)
30%	Term Paper (due on June 8)

COURSE STRUCTURE

節次	主題
1~3	大數據時代之行銷戰略
4~6	萬丈高樓平地起：建構顧客關係行銷資料庫
7~9	顧客價值的解析與策略運用：ARFM 模型
10~12	海誓山盟：顧客終身價值與遷徙路徑之預測
13~15	啤酒與尿布、廚具與內褲：購物籃分析
16~18	透視需求、百步穿揚：新產品推薦系統
19~21	物以類聚，人以群分：顧客的分群與複製
22~24	消費行為大透視：理論、模型、預測、決策

CLASS SCHEDULE

Week 1. February 23

Lecture:

- (1) The Course Philosophy, Structure, and Policy (In Class)

On Line Viewing Assignment:

- (1) 大數據時代之行銷戰略(上)
- (2) 大數據時代之行銷戰略(中)

Homework Assignment: To be announced on the NTU COOL

Week 2. March 2

Class Discussion:

- (1) 大數據時代之行銷戰略(上)
- (2) 大數據時代之行銷戰略(中)

On Line Viewing Assignment:

- (3) 大數據時代之行銷戰略(下)
- (4) 萬丈高樓平地起：建構顧客關係行銷資料庫(上)

Homework Assignment: To be announced on the NTU COOL

Week 3. March 9

Class Discussion:

- (3) 大數據時代之行銷戰略(下)
- (4) 萬丈高樓平地起：建構顧客關係行銷資料庫(上)

On Line Viewing Assignment:

- (5) 萬丈高樓平地起：建構顧客關係行銷資料庫(中)
- (6) 萬丈高樓平地起：建構顧客關係行銷資料庫(下)

Homework Assignment: To be announced on the NTU COOL

Week 4. March 16

Class Discussion:

- (5) 萬丈高樓平地起：建構顧客關係行銷資料庫(中)
- (6) 萬丈高樓平地起：建構顧客關係行銷資料庫(下)

On Line Viewing Assignment:

- (7) 顧客價值的解析與策略運用：ARFM 模型(上)
- (8) 顧客價值的解析與策略運用：ARFM 模型(中)

Homework Assignment: To be announced on the NTU COOL

Week 5. March 23*Class Discussion:*

- (7) 顧客價值的解析與策略運用：ARFM 模型(上)
- (8) 顧客價值的解析與策略運用：ARFM 模型(中)

On Line Viewing Assignment:

- (9) 顧客價值的解析與策略運用：ARFM 模型(下)
- (10) 海誓山盟：顧客終身價值與遷徙路徑之預測(上)

Homework Assignment: To be announced on the NTU COOL

Week 6. March 30 Course Review and Discussion (In Class)**Week 7. April 6***Class Discussion:*

- (9) 顧客價值的解析與策略運用：ARFM 模型(下)
- (10) 海誓山盟：顧客終身價值與遷徙路徑之預測(上)

On Line Viewing Assignment:

- (11) 海誓山盟：顧客終身價值與遷徙路徑之預測(中)
- (12) 海誓山盟：顧客終身價值與遷徙路徑之預測(下)

Homework Assignment: To be announced on the NTU COOL

Week 8. April 13*Class Discussion:*

- (11) 海誓山盟：顧客終身價值與遷徙路徑之預測(中)
- (12) 海誓山盟：顧客終身價值與遷徙路徑之預測(下)

On Line Viewing Assignment:

- (13) 啤酒與尿布、廚具與內褲：購物籃分析(上)
- (14) 啤酒與尿布、廚具與內褲：購物籃分析(中)

Homework Assignment: To be announced on the NTU COOL

Week 9. April 20*Class Discussion:*

- (13) 啤酒與尿布、廚具與內褲：購物籃分析(上)
- (14) 啤酒與尿布、廚具與內褲：購物籃分析(中)

On Line Viewing Assignment:

- (15) 啤酒與尿布、廚具與內褲：購物籃分析(下)
- (16) 透視需求、百步穿揚：新產品推薦系統(上)

Homework Assignment: To be announced on the NTU COOL

Week 10. April 27

Class Discussion:

- (15) 啤酒與尿布、廚具與內褲：購物籃分析(下)
- (16) 透視需求、百步穿揚：新產品推薦系統(上)

On Line Viewing Assignment:

- (17) 透視需求、百步穿揚：新產品推薦系統(中)
- (18) 透視需求、百步穿揚：新產品推薦系統(下)

Homework Assignment: To be announced on the NTU COOL

Week 11. May 4 Course Review and Discussion (In Class)**Week 12. May 11***Class Discussion:*

- (17) 透視需求、百步穿揚：新產品推薦系統(中)
- (18) 透視需求、百步穿揚：新產品推薦系統(下)

On Line Viewing Assignment:

- (19) 物以類聚，人以群分：顧客的分群與複製(上)
- (20) 物以類聚，人以群分：顧客的分群與複製(中)

Homework Assignment: To be announced on the NTU COOL

Week 13. May 18*Class Discussion:*

- (19) 物以類聚，人以群分：顧客的分群與複製(上)
- (20) 物以類聚，人以群分：顧客的分群與複製(中)

On Line Viewing Assignment:

- (21) 物以類聚，人以群分：顧客的分群與複製(下)
- (22) 消費行為大透視：理論、模型、預測、決策(上)

Homework Assignment: To be announced on the NTU COOL

Week 14. May 25*Class Discussion:*

- (21) 物以類聚，人以群分：顧客的分群與複製(下)
- (22) 消費行為大透視：理論、模型、預測、決策(上)

On Line Viewing Assignment:

- (23) 消費行為大透視：理論、模型、預測、決策(中)
- (24) 消費行為大透視：理論、模型、預測、決策(下)

Homework Assignment: To be announced on the NTU COOL

Week 15. June 1

Class Discussion:

(23) 消費行為大透視：理論、模型、預測、決策(中)

(24) 消費行為大透視：理論、模型、預測、決策(下)

Lecture: 大數據時代之行銷戰略_結論

Week 16. June 8 Course Review and Discussion (In Class)

CURRICULUM VITA

LICHUNG JEN

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CURRENT POSITION

Director, Global Branding and Marketing Research Center, National Taiwan University
Professor of Marketing, Department of International Business, National Taiwan University
Professor of Statistics, Master Program in Statistics, National Taiwan University
Editor, Taiwan Journal of Marketing Science, TJMS
Chairman, Taiwan Institute of Marketing Science, TIMS
Chairman, Chinese Applied Statistics Association, CASA
Chairman, Chinese Institute of Business Education Development, CIBED
President, Global Chinese Marketing Federation, GCMF

EDUCATION

1. Ph.D. in Marketing, December 1995, College of Business, Ohio State University. Major: Marketing Management. Minor: Quantitative Methods.
2. MA (Master of Arts) in Marketing, August 1994, College of Business, Ohio State University, Columbus, Ohio, USA.
3. MAS (Master of Applied Statistics), August 1991, Department of Statistics, Ohio State University, Columbus, Ohio, USA.
4. MBA, June 1985, Graduate School of Management Science, Tamkang University, Taipei, Taiwan, R.O.C.
5. BBA, June 1983, Department of Business Administration, Chinese Culture University, Taipei, Taiwan, R.O.C.

TEACHING INTERESTS

1. Marketing Management
2. Marketing Research
3. International Marketing
4. Strategic Database Marketing (MBA)
5. Seminar in Marketing Models (Ph.D.)
6. Advance Statistics (Ph.D.)

RESEARCH INTERESTS

1. Database marketing decision models
2. Customer valuation, cross selling, and continuity selling strategy
3. Consumer and segmentation strategy
4. Hierarchical Bayes Conjoint Analysis
5. Forecasting international adoption/diffusion process

ACADEMIC AND PROFESSIONAL EXPERIENCES

1. Dean, College of Business, Chinese Culture University, 2011-2014.
2. Chair, Department of Tourism Management, Chinese Culture University, 2011-2012.
3. Chair, Department of International Business, National Taiwan University, 2009-2011.
4. Chief Executive Officer, Taiwan Institute of Marketing Science, 2004-2018.

5. Member of Board of Directors, China Applied Statistics Association, 2008-present.
6. Chair, Board of Directors, China Applied Statistics Association, 2004-2008.
7. Member of Board of Directors, Multinational Enterprise Study Association, Republic of China, 2001-present.
8. Editor, *Taiwan Journal of Marketing Science*, published by Taiwan Institute of Marketing Science, 2005-present.
9. Associate Editor, *System and Management*, published by Chaio Tung University, 2004-present.

PUBLICATIONS

Papers published in *Journal of Marketing Research*, *Journal of American Statistics Association*, *Journal of Business & Economic Statistics*, *Marketing Letters*, *Industrial Marketing Management*, *International Journal of Operations and Quantitative Management*, and several others journals in Taiwan.

Professor Jen, Lichung, a citizen of Taipei, Taiwan, currently serves as President of Global Chinese Marketing Federation (GCMF). He is also the Director of Global Branding and Marketing Research Center and Marketing Professor in the Department of International Business at National Taiwan University, Chairmen of Chinese Applied Statistics Association (CASA) Chairmen of Chinese Applied statistics Association (CASA), Chairman of Taiwan Institute of International Business Studies (TIIBS), and also the Chief Editor of Taiwan Journal of Marketing Science (TJMS).

Professor Jen has been involved in research projects and lectures for more than 30 well-known enterprises including Chunghwa Telecom in Taiwan, IBM, Cathay Bank, Ford Motor, China Petroleum, Panasonic and many more.

In academic achievement, a lot of top-tier journals have published his researches and thesis, allowing him to be nominated as an awardee of the Best Thesis Award by Journal of American Statistics Association in 1999. He has also gotten grants from Taiwan National Science Council and published more than 10 books. Over the years, he advised more than 200 master students thesis and 12 doctoral dissertations.

