

Chunbo Fan

Education

- University of Delaware, Ph.D., Economics (2014)

Dissertation topic: "Corporate Governance, Credit Rating and Business Cycles"

- University of Delaware,
 - M.S., Statistics (2003)
 - M.S., Food and Resource Economics (2001)
- Central University of Finance & Economics (China), B.S., Business Administration (1998)

Research Interests

- Simulation of statistics and modeling, especially when applied to deepen the understanding of statistical concepts and modeling techniques
- Online education strategies for the instructors and for the students
- Critical thinking and its applications in decision making
- Behavioral economics

Research and Computing Skills

- Strong skills and over 10 years of experience in study/experiment design
- Strong knowledge and over 17 years of experience of advanced modeling techniques
- Working experience of complex big data in the fields of finance and pharmaceutical sales
- Proven capability of executing study plans under timelines and coaching others
- Extensive knowledge of SAS on UNIX and Windows
- Extensive knowledge of R

Publications and Awards

- "Performance Results and Characteristics of Adopters of Genetically Engineered Soybeans in Delaware." *Agricultural and Resource Economics Review*, 33(2004): 282-292. (With John Bernard and John Pesek)
- "Delaware Farmers' Adoption of GE Soybeans in a Time of Uncertain U.S. Adoption." *Agribusiness: An International Journal*, 20(2004): 81-94. (With John Benard and John Pesek)
- "Large-Scale Assessment of Student Attitudes after a Short-Term Study Abroad Program." *Frontiers*, Volume X, Fall 2004, p. 165-177
- Gerald L. Cole Award, 2001, University of Delaware

Business Analytics Experience

04/2015-12/2017 **Business Insight Associate Director**, Bayer Pharmaceuticals

- Obtained in-depth understanding of the three major fields of healthcare data: marketing, field sales, and managed market
- Assessed business promotional tactics' ROI using advanced Marketing Mix modeling for

- therapeutic areas of rare diseases and hematology
- Delivered key performance review reports of three brands to oncology business leaders on a monthly basis
- Monitored utilization of \$0 copay program and coordinated with central teams to analyze the ROI of the program
- Identified key segments of physicians with Stivarga upside potential which eventually led to a kicker contest for the sales consultants
- Provided analytical support for oncology marketers to further understand the market dynamics including referral pattern study and duration of therapy
- Supported primary market research colleagues with HCP recruiting list and study results review
- Successfully managed the claims data purchase to prepare for a launch of a lymphoma treatment within budget and under a tight timeline

04/2006-04/2015 **Quantitative Commercial Insight Analyst/Manager, AstraZeneca**
Pharmaceuticals

- Developed a deep understanding of business analytics in the pharmaceutical industry, including commercially available data and common practices
- Applied advanced modeling techniques to measure promotion responsiveness and optimize channel mix under budget constraints
- Managed pharmaceutical sales specialists (PSS) size and structure optimization for key brands
- Innovated the response analysis for customer service associate team by using a two step model
- Provided commercial insight support for brands in different life cycles, ranging from creating brand segmentation, targeting and performance assessment for CSO team and CDI channels, ROI analysis to marketing mix optimization
- Supported the launch of a major respiratory brand with customer segmentation, targeting and call planning and sample planning

06/2005-04/2006 **Consumer Research Manager, AIG Marketing**

- Led new consumer research surveys to help understand customer needs and key drivers of customer satisfaction, including setting up survey methodology, coordinating with various departments for data extracting, questionnaire design, print/mail and data analysis/modeling
- Analyzed data for trends of customer satisfaction, retention, and referral propensity; provide recommendations on actionable items to marketing group

Teaching/Research Experience

12/2017- present **Assistant Professor, University of Delaware**

- Teaching subjects include database management using SAS, survival analysis, advanced mathematical statistics, and regression
- Designed a more effective framework to deliver courses online, with the use of online meetings, piece-meal workshops and quizzes, and assignments
- Provided StatLab consulting to various clients from on- and off-campus, on projects ranging from education to weed control

01/2017-04/2017 **Marketing Mix Modeling seminar lecturer, Bayer Pharmaceutical**

- Created a seminar for the Business Insight VP to help senior leaders understand Marketing Mix Modeling (MMX) “under the hood” and was very well received
- Used SAS to simulate a product with two competitors in the market and defined the ‘true’ model parameter and functional form and then applied random errors to create observable for modeling
- Applied typical segmentation and regression methods to showcase why certain processes of MMX are important and helped the senior leaders to understand high level mechanics of how the model works
- Explained why certain statistics are important in measuring a model’s goodness by comparing the analysis results to the preset ‘truth’ of simulation

01-02/2001, 06-08/2001 **STAT200 Instructor, University of Delaware**

- Developed curriculum, focusing on key statistics concepts and how students could relate them to their majors
- Explored classroom delivery options including individual and group problem solving which is used to this day
- Fostered the idea of critical thinking for students to increase their statistical literacy

08/2004-05/2005 **StatLab Researcher, University of Delaware**

- Took StatLab consulting cases to the StatLab classroom of graduate students in the statistics program, presenting each case’s background, analysis plan, and results wherever applicable
- Enriched students’ experience of the types of statistical problems and the variety of analytical support that the other disciplines need from statisticians