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30th Annual Marketing Science Conference

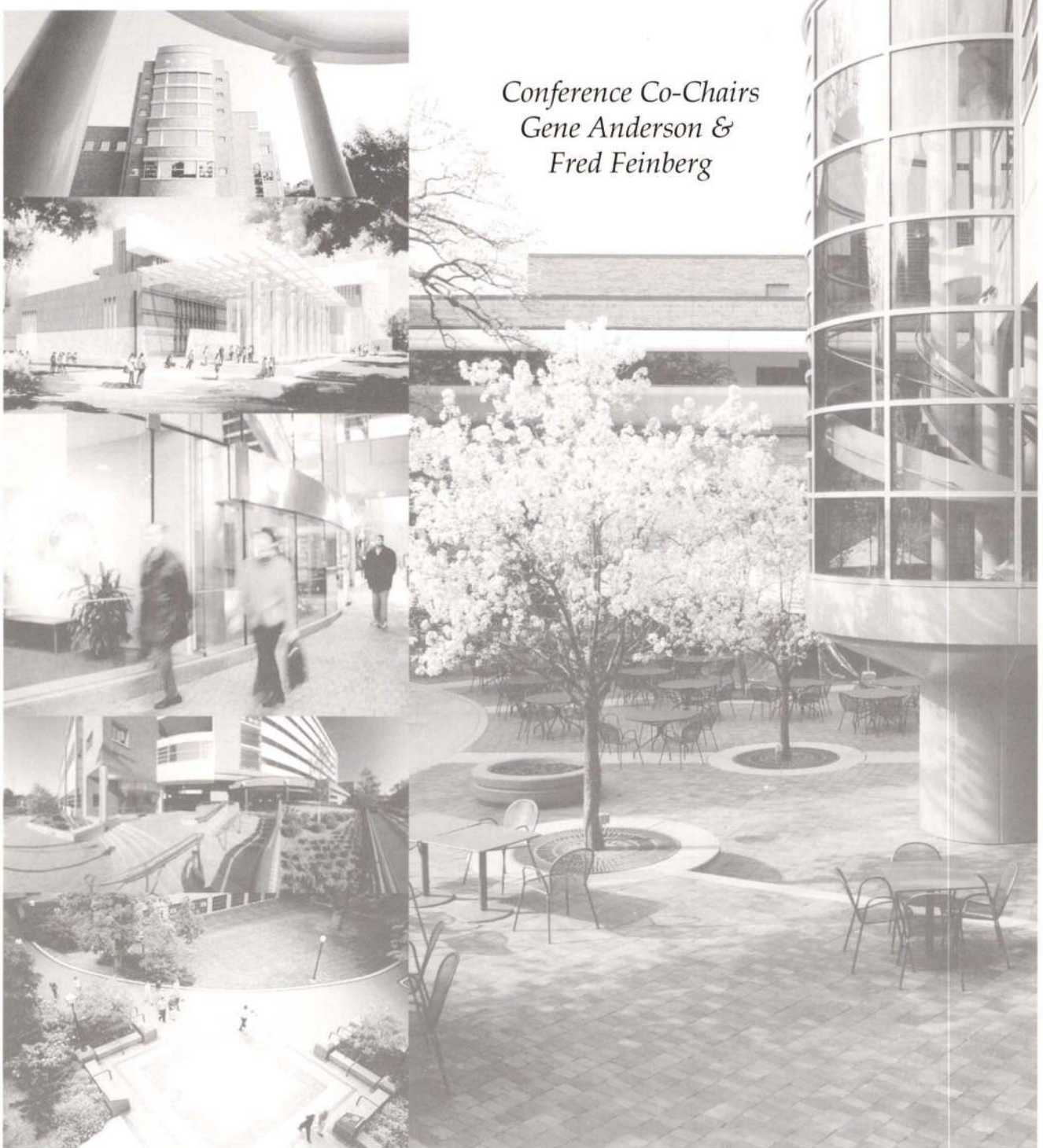
VANCOUVER BC
JUNE 12 - 14, 2008

THE UNIVERSITY OF BRITISH COLUMBIA

INFORMS MARKETING SCIENCE CONFERENCE
June 4 - 6, 2009

Join us in beautiful Ann Arbor, MI, USA

The Stephen M. Ross School of Business
at the University of Michigan



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INFORMS Marketing Science Conference

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Marketing Division, Sauder School of Business
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Welcome to the 30th Annual INFORMS Marketing Science Conference

Dear colleagues,

On behalf of the marketing faculty of the Sauder School of Business at the University of British Columbia, we are delighted to welcome you to Vancouver and this exciting conference.

If our projections hold, this should be a record breaking conference. There are more than 650 presentations scheduled and over 800 people from all around the world are expected to attend. However, as a review of the conference proceedings indicates, we not only have quantity, but also have quality and diversity.

The conference will start on Thursday, June 12 at 1:00 p.m. and continue through to Saturday at 5:00 p.m. Please note in particular the welcome reception on Thursday night and the Gala dinner on Friday night.

Beyond the conference itself, please allow time to explore Vancouver and the surrounding areas. Discover why Vancouver is one of the most liveable cities in the world and one of the top tourist attractions anywhere. On the conference website, we have provided our personal picks for lounges, restaurants, and tourist attractions.

This conference has support from three generous sponsors: AbeBooks, the Marketing Science Institute, and the Rotterdam School of Management. We sincerely thank them for their support.

We also want to thank and recognize André Bonfrer at the Lee Kong Chian School of Business, Singapore Management University, for organizing the two Meet-the-Editors sessions on Thursday afternoon and Sridhar Moorthy at the Rotman School of Management, University of Toronto, for organizing the doctoral consortium that preceded this conference.

If we can help in any way, please let us know.

Welcome to Vancouver!

Chuck Weinberg, Darren Dahl, and Dan Putler
Co-Chairs, 2008 INFORMS Marketing Science Conference Organizing Committee

2008 Conference Organizing Committee

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For more information on the Marketing Division of the Sauder School of Business, please visit http://marketing.sauder.ubc.ca

INFORMS Marketing Science Conference

The Institute of Operations Research and Management Sciences (INFORMS) is an international, not-for-profit scientific society with 10,000 members, including Nobel laureates, dedicated to applying scientific methods to help improve decision-making, management, and operations. The Marketing Science Conference falls under the auspices of the INFORMS Society for Marketing Science (ISMS) sub-branch whose major purpose is to foster the development, dissemination, and implementation of knowledge, basic and applied-research, and science and technologies that improve the understanding and practice of marketing.

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INFORMS Marketing Science Conferences

1979 Stanford University
David B. Montgomery, Dick Wittink

1980 University of Texas, Austin
Robert Leone

1981 New York University
John Keon

1982 University of Pennsylvania
Vijay Mahajan, Yoram Wind

1983 University of Southern California
Fred Zufreyden

1984 University of Chicago
Steven Shugan

1985 Vanderbilt University
Russell Winer, Allan Shocker

1986 University of Texas, Dallas
Ram Rao

1987 HEC, France
Dominique Hanssens, Gilles Laurant

1988 University of Washington
Allan Shocker, Robert Jacobson

1989 Duke University
John McCann, Richard Staelin

1990 University of Illinois
S. Sudharshan

1991 University of Delaware/Dupont
Ajay Manrai, John Frey

1992 London Business School
Mark Uncles, Gerald Goodhardt

1993 Washington University
Chakravarti Narasimhan

1994 University of Arizona
Dipankar Chakravarthi, Ambar Rao

1995 University of New South Wales
John Roberts, Pamela Morrison

1996 University of Florida
Steven Shugan, Barton Weitz

1997 University of California, Berkeley
Tulin Erdem, Miguel Villas-Boas,
Russell Winer

1998 INSEAD, France
Erin Anderson, Hubert Gatignon

1999 Syracuse University
Amiya Basu, T. Mazumdar, S. P. Raj

2000 University of California, Los Angeles
Randolph Bucklin, Donald Morrison

2001 University of Mainz
Oliver Heil

2002 University of Alberta
Peter T. L. Popkowski Leszczyc

2003 University of Maryland
Brian Ratchford, Roland Rust,
Venky Shankar

2004 Erasmus University, Rotterdam
Stefan Stremersch

2005 Emory University
Sundar Bharadwaj, Douglas Bowman,
Sandy Jap

2006 University of Pittsburgh
Rabi Chatterjee, Jeff Inman, R. Venkatesh

2007 Singapore Management University
Sundar Bharadwaj, Jin K. Han,
David B. Montgomery, Chin Tiong Tan

2008 University of British Columbia
Charles B. Weinberg, Darren Dahl,
Daniel Putler

2009 University of Michigan
Eugene Anderson, Fred Feinberg

2010 University of Cologne
Werner Reinartz, Karen Gedenk,
Franziska Völckner,

Summary Schedule

Thursday, June 12

10:00 AM	**Registration starts** Junior Ballroom Foyer
1:00 - 2:30 PM	**Session 1 - Breakouts** Pavilion D (Meet-the-Editors 1), Grand A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill, Granville, Galiano
2:30 - 3:00 PM	**Coffee break** Junior Pavilion Foyer
3:00 - 4:30 PM	**Session 2 - Breakouts** Pavilion D (Meet-the-Editors 2), Grand A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill, Granville, Galiano
4:45 - 6:15 PM	**Session 3 - Breakouts** Grand A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill, Granville, Galiano
6:30 - 8:00 PM	**Welcome reception** Pavilion Ballroom, Junior Pavilion Foyer

Friday, June 13

7:00 AM	**Registration starts** Junior Ballroom Foyer
7:30 AM - 8:30 AM	**Breakfast** Grand Ballroom
8:30 - 10:00 AM	**Session 4 - Breakouts** Pavilion A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill, Granville, Galiano
10:00 - 10:30 PM	**Coffee break** Junior Pavilion Foyer
10:30 - 12:00 PM	**Session 5 - Breakouts** Pavilion A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill, Granville, Galiano
12:00 - 1:30 PM	**Buffet lunch** Grand Ballroom
1:30 - 3:00 PM	**Session 6 - Breakouts** Pavilion A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill, Granville, Galiano

Summary Schedule

Friday, June 13 continued

3:00 - 3:30 PM	**Coffee break** Junior Pavilion Foyer
3:30 - 5:00 PM	**Session 7 - Breakouts** Pavilion A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill, Granville, Galiano
6:00 - 7:00 PM	**Reception** Junior Pavilion Foyer or outside garden area
7:00 - 10:00 PM	**Gala dinner banquet** Grand Ballroom

Saturday, June 14

7:00 AM	**Registration starts** Junior Ballroom Foyer
7:30 AM - 8:30 AM	**Breakfast** Pavilion Ballroom
8:30 - 10:00 AM	**Session 8 - Breakouts** Grand A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill
10:00 - 10:30 PM	**Coffee break** Junior Pavilion Foyer
10:30 - 12:00 PM	**Session 9 - Breakouts** Grand A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill
12:00 - 1:30 PM	**Buffet lunch** Pavilion Ballroom
1:30 - 3:00 PM	**Session 10 - Breakouts** Grand A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill
3:00 - 3:30 PM	**Coffee break** Junior Pavilion Foyer
3:30 - 5:00 PM	**Session 11 - Breakouts** Grand A-D, Junior A-D, Parksville, Orca, Finback, Port Alberni, Port Hardy, Port McNeill

City Map

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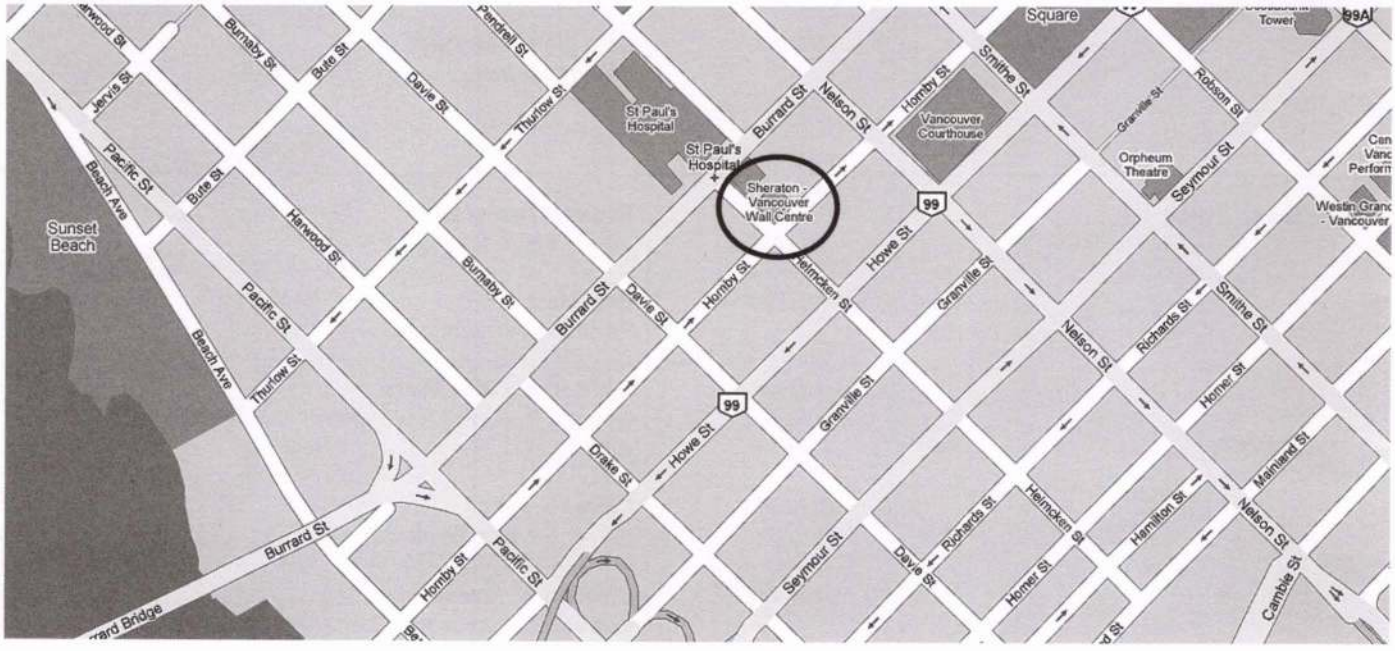
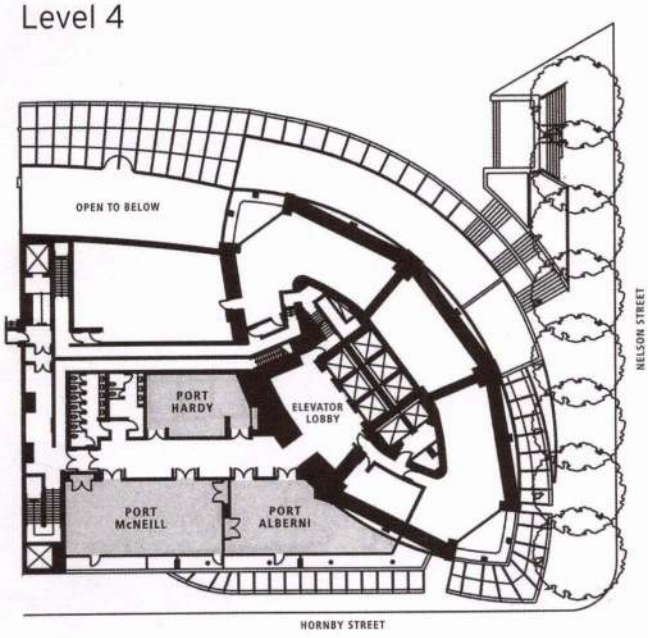


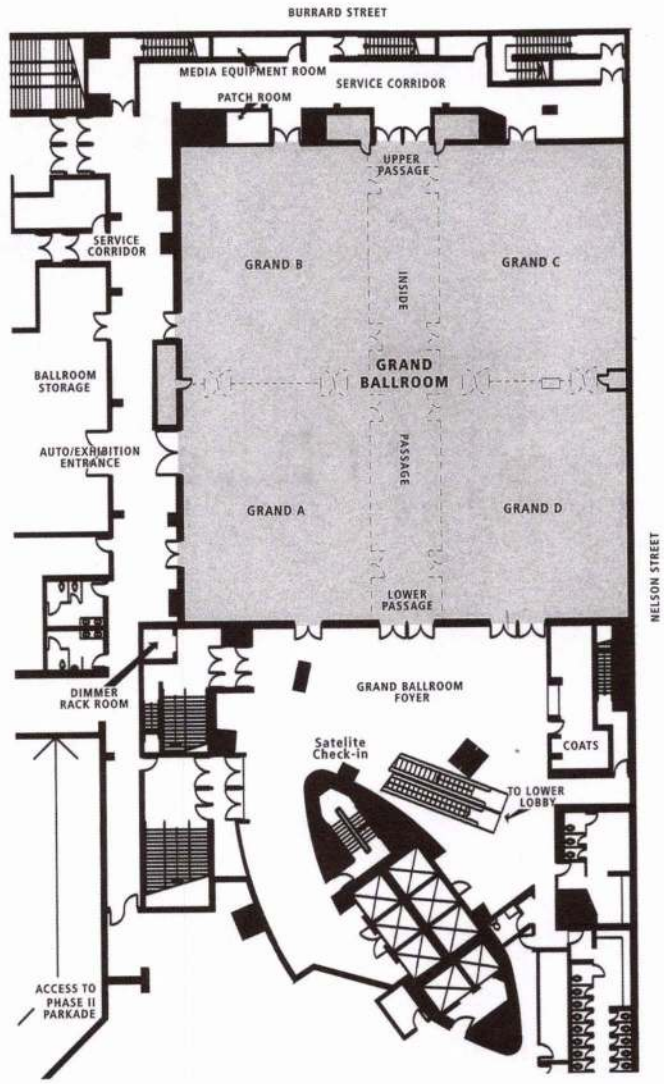
North Tower - Level 4, Grand Ballroom Level

Sheraton Vancouver Wall Centre

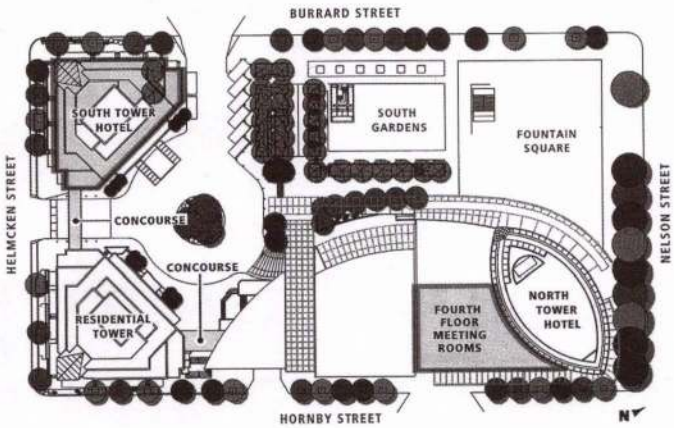
Level 4



Grand Ballroom Level

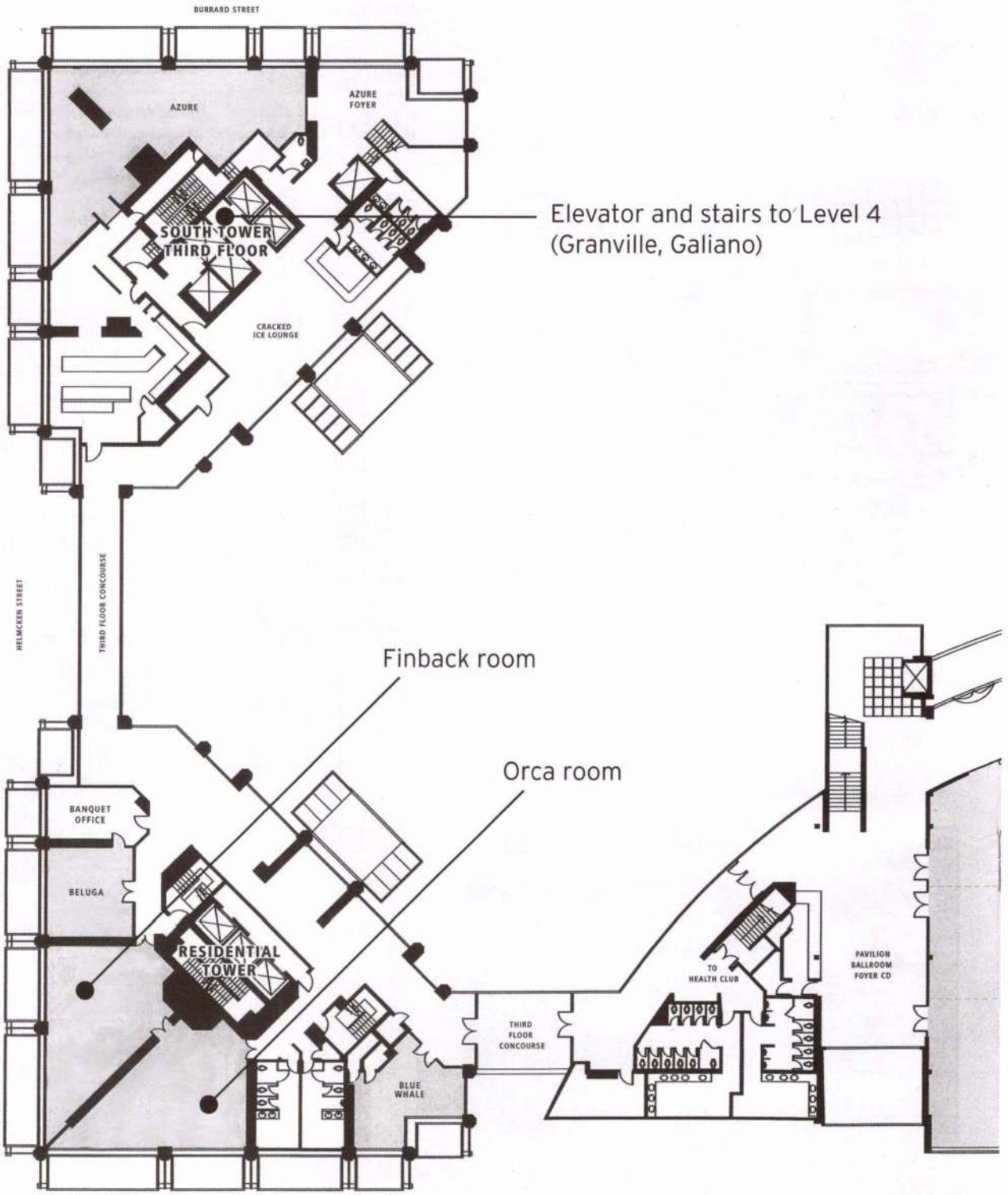


Sheraton Vancouver Wall Centre Hotel
Function room locations



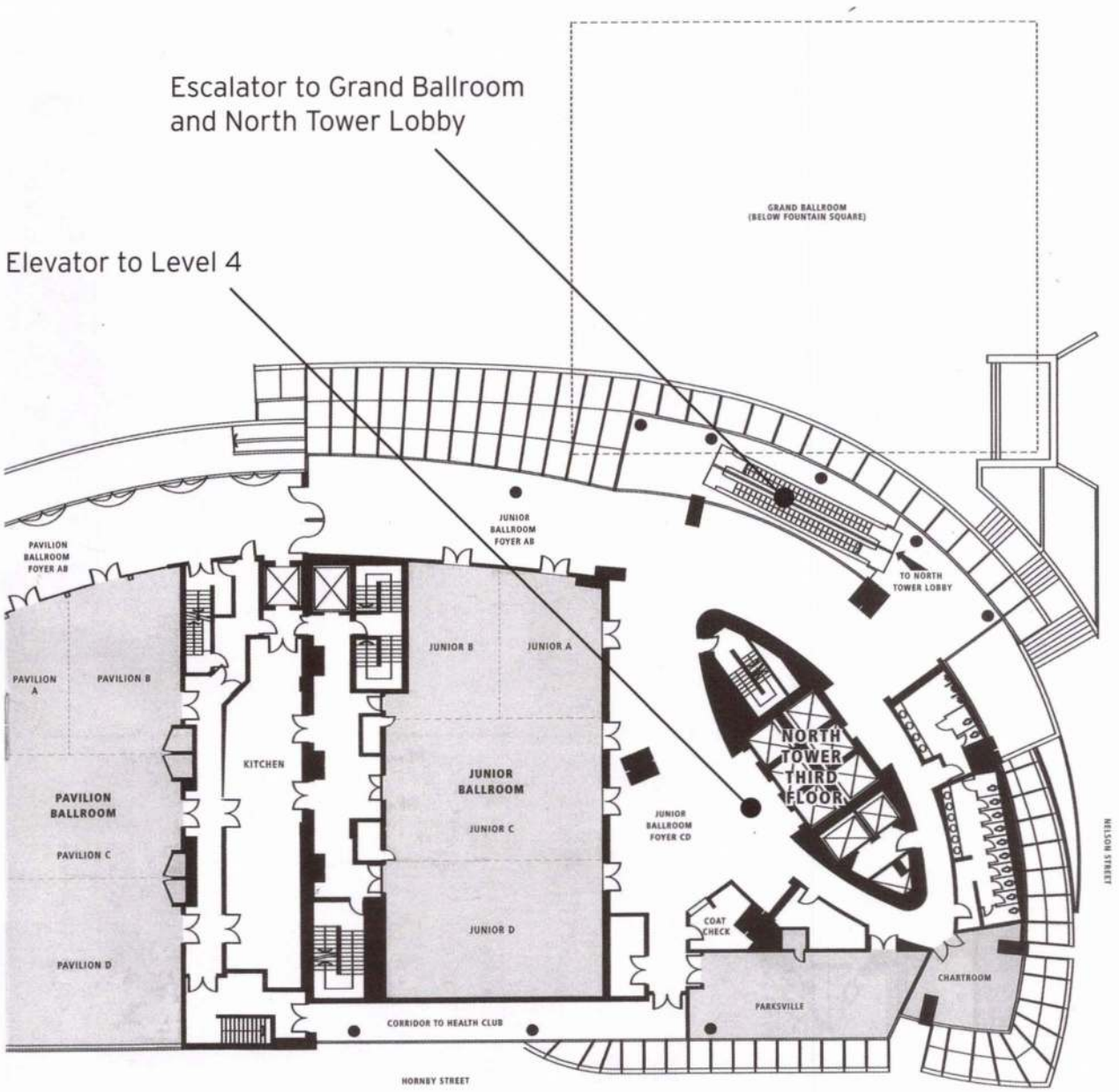
South Tower, Residential Tower - Level 3

Sheraton Vancouver Wall Centre



North Tower - Level 3

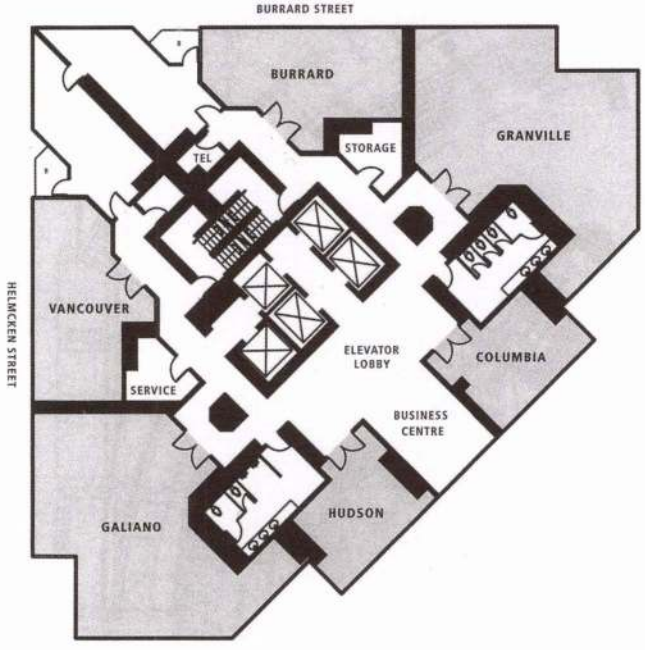
Sheraton Vancouver Wall Centre



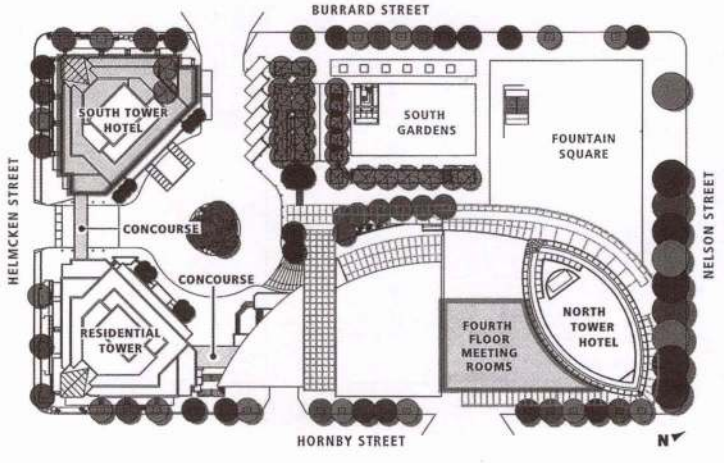
South Tower - Level 4

Sheraton Vancouver Wall Centre

South Tower



Sheraton Vancouver Wall Centre Hotel
Function room locations



2008 INFORMS Marketing Science Conference

Thursday, June 12th, 2008 1:00-2:30PM (TA)

TA01 – Junior Ballroom D

Empirical Analysis of Online Auctions

Chair: Robert Zeithammer

When Zero Search Cost is Too High: What Does it Take to Make Consumers Search?
Peter T. L. Popkowski Leszczyc, Ernan Haruvy

Click, Click, Click: Measuring the ROI of Keywords Advertising
Tat Y. Chan, Chunhua Wu

Jump Bidding in Online Auctions: A Double-edged Sword
Yongfu He, Peter T. L. Popkowski Leszczyc

Tests of the Sealed-bid Abstraction in Online Auctions
Robert Zeithammer

TA02 – Junior Ballroom C

In Honor of Professor Frank M. Bass: Expanding Frontiers of Diffusion Research

Chair: Gerard J. Tellis, Ashish Sood

Independence and Imitation in New Product Diffusion: Competing Risks or Compensatory Influences?
Christophe Van den Bulte, Yogesh V. Joshi

The Value of Opinion Leaders in the Diffusion of Innovations
Barak Libai, Eitan Muller

A Semiparametric Approach to New Product Growth: ICT Diffusion in New and Old Europe
Aurélie Lemmens, Stefan Stremersch, Christophe Croux

Functional Regression: A New Model for Forecasting Market Penetration of New Products
Ashish Sood, Gerard J. Tellis , Gareth James

TA03 – Grand Ballroom D

Loyalty Programs

Chair: Tammo H.A. Bijmolt, Els Breugelmans

Do Loyalty Program Partnerships Matter? Examining the Reinforcing Effects of Cross-buying in Loyalty Programs
Katherine N. Lemon, Florian v. Wangenheim

Loyalty Program Rivalry and Its Impact on Firm and Consumer Outcomes
Yuping Liu, Rong Yang

The Impact of Category-based Loyalty Programs
Els Breugelmans, Jie Zhang

Effects of Introducing and Terminating a Loyalty Program: The Role of Monetary and Non-monetary Rewards
Valentina Melnyk, Tammo H.A. Bijmolt

TA04 – Port Alberni

New Approaches in Understanding Word-of-Mouth

Chair: Dave Bussiere

A Multi-Stage Model of Word-of-Mouth and its Impact on Attitudes and Purchasing Behaviors
Donald Lehmann, Andrew Stephen

Optimal Heterophily and the Impact of Word-of-Mouth
Hikaru Yamamoto, Satoshi Nishida, Shinji Morioka, Shigetaka Yamakawa

The Human Components of Word-of-Mouth: Humor, Impatience, Sarcasm and Anger
Dave Bussiere

TA05 – Grand Ballroom C

Issues in New Product Adoption

Chair: Juan Wang

Determinants of RFID Adoption in Retail Chains: A statistical Evidence
Ming-Chih Tsai, Wen Lee

One's Innovativeness and Adoption Time of an Innovation
Masataka Yamada

Stuck in the Adoption Funnel: The Effect of Delays in the Adoption Process on Ultimate Adoption
Anja Lambrecht, Catherine Tucker, Katja Seim

Determinants of New Product Features Adoptions of Two Product Categories
Juan Wang, Vinay Kanetkar, Towhidul Islam

TA06 – Grand Ballroom B

Modeling Movie Box-Office

Chair: Young-Hoon Park

Inferring Initial Penetration with Attitudinal Tracking: A Study of Opening Weekend Box-office
Jonathan Lee, C. Whan Park, Pradeep Chintagunta, Jeanie Han

Investigating the Role of Local Market and Exhibitor Characteristics on Box-office Performance
Sriram Venkataraman, Pradeep Chintagunta

Spatial Econometric Model of Box-office Revenues - An Exhibitor-level Analysis
Young-Hoon Park, Sriram Venkataraman, Eric T. Bradlow

TA07 – Grand Ballroom A

Brand Choice and Market Structure

Chair: Rakesh Niraj

Reference-Quality and Dominant Reference in Aggregated Demand
Wonjoon Kim, K. Sudhir, Subrata K. Sen

A Household Production Approach to Modeling Snack Consumption
Marina Girju, Brian Ratchford

Market Structure Analysis
Fang Wu, Terry Elrod, Paul Messinger

The Effects of Social Contagion on Brand Loyalty: Insights from a Consumer Durable Market
Rakesh Niraj, Ramkumar Janakiraman

TA08 – Port Hardy

Reference Points, Timing, and Concessions

Chair: Charles C Cui

Reference Effects of Multi-Item Promotions on Brand Choice Behavior
Karen Gedenk, Michael Knaf, Sonja Spuerkmann

The Effect of Timing on Consumers' Responses to Recommendations
Min Zhao, Jinhong Xie

Seller's Facial Expressions & Concession Patterns: Buyer's Beliefs in Influencing Price Expectations
Rajesh Bagchi, Dipankar Chakravarti, Atanu Sinha

Consumers' Shopping Motivations and Use of Reference Points
Charles C Cui

2008 INFORMS Marketing Science Conference

Thursday, June 12th, 2008 1:00-2:30PM (TA)

TA09 – Junior Ballroom B

Models of Customer Churn

Chair: James Hess

Modeling Individual Customer Transaction Behavior with Hidden Markov Models
Nino Hardt, Joachim Bueschken

Staying Power of Churn Prediction Models
Hans Risselada, Peter C. Verhoef, Tammo H.A. Bijmolt

Modeling Loyalty for Better Customer Relationship Management
Ashwin Aravindakshan, Roland Rust , Brian Ratchford

Competitive Customer Relationship Management: Acquisition Versus Retention
James Hess, Niladri Syam

TA10 – Junior Ballroom A

Modeling Dynamic Market Competition

Chair: Romana Khan

Competitive Impact of and Response to Deceptive Advertising
Martha Tipton, Sundar Bharadwaj

Dynamic Marketing Mix Strategies for Two-sided Platform-firms
Shrihari Sridhar, Murali K. Mantrala, Prasad Naik, Esther Thorson

Non-Linear Pricing and Competition: An Empirical Study of the Auto Rental Industry
Romana Khan, Vishal Singh, Ting Zhu

TA11 – Port McNeill

Sales Management I

Chair: Noah Lim

Delegation of Authority and Sales Force Compensation in Industrial Markets
Desmond (Ho-Fu) Lo, Mrinal Ghosh, Francine Lafontaine

Rewarding A While Hoping It's Correlated with B
David Godes

Does the Proportion of Winners in Sales Contests Matter?
Noah Lim

TA12 – Parksville

Price Evaluation, WTP, and Pricing Options

Chair: Dominik Papies

Category Association, Price Information and Willingness to Pay
Maria Merino, Bruce McWIlliams, Carlos Campos

Good Deal or Keep Searching? The Impact of Regulatory Focus on Price Evaluation
Cathy Y. Chen, Song Oh Yoon

Investigating Adult, Children and Family Pricing and Its Impact of Entry-By-Donation and Free Offers
Nicole Hartley, Paul Burke, Paul Harrison

What Causes a Hypothetical Bias in Willingness-to-Pay Measurements?
Dominik Papies, Franziska Voelckner

TA13 – Orca

Issues in Branding

Chair: Seshan Ramaswami

The Effects of Line Extensions on Parent Brand Equity: An Empirical Analysis of Supermarket Packaged
Ian Sinapuelas, Sanjay Sisodiya

Identifying Customer Segments Regarding Cross-category Brand Loyalty Behavior
Nadja Silberhorn, Yasemin Boztug, Lutz Hildebrandt

What Makes a Star? - Investigating the Evolution Patterns of Athlete Brands
Yupin Yang

The Inferential Effects of Product Line Range on Brand Choice
Seshan Ramaswami, Michelle Lee

TA14 – Finback

Theoretical Models of Advertising and Promotion

Chair: Anthony Dukes

Optimal Generic Advertising Choices for Competing Industries
Yuanfang Lin, Sandeep Krishnamurthy

Consumer Stockpiling and Promotional Strategies
Manish Gangwar, Nanda Kumar

Impact of Horizontal and Vertical Market Power on Trade Promotion Budget and Allocation
Miguel Gomez, Vithala R. Rao, Hong Yuan

In-store Media and Channel Management
Anthony Dukes, Yunchuan Liu

TA15 – Granville

International Marketing Issues

Chair: Aharon Hibshoosh

Channel Control Efficacy in Foreign Markets: The Role of MNC Global Strategy and Country Environment
Girish Mallapragada, Rajdeep Grewal

The Role of Involvement in Country-of-Origin Effects on Product Choice
Ching-I Chen, Ting-Ling Lin, Yen-Chu Lee

The Empirical Study of Market Orientation, International Experience, Global Marketing Characteristics
Pao-Hung Peng

Pricing in Gray Markets with an Independent Wholesaler Importing and Private Importing
Aharon Hibshoosh

TA16 – Galiano

Direct Marketing and Targeting

Chair: Hao Zhao

Direct Marketing on a Network
Peter Pal Zubcsek, Miklos Sarvary

Service Pricing Strategy: Does Better Targeting Always Improve Profitability?
Pavan Chennamaneni, Ramarao Desiraju, Anand Krishnamoorthy

Detecting Promising Categories for Targeted Promotions
Yasemin Boztug, Els Breugelmans, Thomas Reutterer

Compensating a Risk-Averse Agent for Conducting Direct Mail Campaigns with Adverse Selection
Hao Zhao, Yong Cao

Thursday, June 12th, 2008 1:00-2:30PM (TA)			
TA17 – Pavilion Ballroom D **Meet the Editors 1** Journal of Retailing *Praveen Kopalle* Management Science *Jagmohan S. Raju* Quantitative Marketing and Economics (QME) *Peter Rossi* Marketing Letters *Randolph E. Bucklin or Joe E. Urbany*			

2008 INFORMS Marketing Science Conference

Thursday, June 12th, 2008 3:00-4:30PM (TB)

TB01 – Junior Ballroom D

Static and Dynamic Equilibrium Models

Chair: Sanjog Misra

A Larger Slice or a Larger Pie? Investigating Bargaining Power in the Distribution Channel
Michaela Draganska, Daniel Klapper, Sofia Villas-Boas

Tipping and Concentration in Markets with Indirect Network Effects
Jean-Pierre Dube, Gunter Hitsch, Pradeep Chintagunta

Bayesian Estimation of Discrete Games
Wesley Hartmann, Sridhar Narayanan

El Peso Doble: Double Couponing in the Supermarket Industry
Sanjog Misra, Sagit Harel-Tal, Paul Ellickson

TB02 – Junior Ballroom C

Marketing and Financial Performance I

Chair: Shuba Srinivasan

Dynamic Marketing Mix Allocation for Long-term Profitability
Ricardo Montoya, Oded Netzer, Kamel Jedidi,

Pre-release Forecasting Using Online Virtual Stock Markets
Natasha Z. Foutz, Wolfgang Jank

Marketing Spending and the Volatility of Revenues and Cash Flows
Marc Fischer, Hyun Shin, Dominique M. Hanssen

The Effects of Pharmaceutical Direct-to-consumer Advertising: A Shareholder's Perspective
Ernst C. Osinga, Peter S.H. Leeflang, Shuba Srinivasan, Jaap E. Wieringa

TB03 – Grand Ballroom D

Bidding Behavior in B2B and B2C Online Auctions

Chair: Sandy Jap

The Impact of Promotional Messages During Auctions
Eric A. Greenleaf, Caroline Ducarroz, Sha Yang

The Effects of Consumer Perceptions of Price Unfairness on Auctions and Posted Prices for Online Selling
Xin Wang, Young-Hoon Park, Donglei Qiu

Bidding Strategies in Buyer Determined Online Auctions
Ernan Haruvy, Sandy Jap

BidAnalyzer: A Method for Estimation and Selection of Dynamic Bidding Models
Prasad Naik, Sandy Jap

TB04 – Port Alberni

Word-of-Mouth in Online Environments

Chair: Melanie Dempsey

Managing Online Social Interactions: Sales Impacts of Observational Learning vs. Word-of-mouth
Yubo Chen, Jinhong Xie

Cognitive, Affective, and Behavioral Reactions of Consumers to Online Word-of-Mouth
Iris Gorodesky, Yoav Ganzach

Why Consumers Voluntarily Provide Service Feedbacks Online
Jian Ming Teng

Most Emailed News: Viral Characteristics of Text-based Online Content
Melanie Dempsey, Jason Y. C. Ho

TB05 – Grand Ballroom C

New Product Diffusion-Applications

Chair: Yutaka Hamaoka

The Takeoff of Green Technologies: A Historical Analysis of Timing and Affecting Factors
Giulia Calabretta, Jordi Montaña

Revisiting the Product Life Cycle Concept: Lessons from Diffusion Research
Paul Steffens, Maria Kaya

Time-Varying Marketing Mix and Entry-Timing Analysis: The US Automotive Market Over Three Decades
Maria Kratcholova

Users as Co-Creators
Yutaka Hamaoka

TB06 – Grand Ballroom B

Entertainment Demand

Chair: Yong Liu

Spatial and Temporal Effects of a Performance Schedule on Event Ticket Sales
Peggy Tseng, Wendy Moe

The Impact of New Attractions on Theme Park Attendance
Rutger D. van Oest, Harald J. van Heerde, Marnik G. Dekimpe

Modeling the Impact of Advertising on Event Ticket Sales
Moon Young Kang, David Schweidel, Neeraj Arora

Network Externality and Consumer Evaluation of New Products: Evidence from Online Gaming Industry
Yong Liu, Jun Yang, Enping Shirley Mai

TB07 – Grand Ballroom A

Applied Choice Models

Chair: Neeraj Arora

Soaps, Roles & Social Status: Interpersonal Influences Among Mexican TV Viewers
Jose D. Mora, Jason Y. C. Ho, Robert Krider

A Choice Model with Endogenous Social Effects and Application to MBA Student Internship Preferences
Tony Bao, Vrinda Kadiyali, Sachin Gupta

Allocation of Search Time to Information Sources for Automobile Purchase
Jung Kim, Brian Ratchford

Predicting Joint Choice Using Individual Data
Neeraj Arora, Anocha Aribarg, Moon Young Kang

TB08 – Port Hardy

Self Prediction, Control, and Need Satisfaction

Chair: Keri Kettle

How Does Ego-Depletion and Construal Levels Relate to Self-Control?
Darlene Walsh, Andrew Mitchell

Effects of Context, Gender and Consciousness on Avatar Choice in Virtual Environments
Sunanda Sangwan, Chong Guan, Judy Siguaw

The Impact of Anticipation Duration on Experience and Retrospection
Hae Eun Chun, Deborah MacInnis

Self-Prediction in a Social Context: When "Overconfidence" Improves Performance
Keri Kettle, Gerald Häubl

2008 INFORMS Marketing Science Conference

Thursday, June 12th, 2008 3:00-4:30PM (TB)

TB09 – Junior Ballroom B

CRM-Customization and Customer Portfolio

Chair: Martin Boehm

Disentangling the Benefits of Product Customization
Ferdinand Burianek, Frank Piller, Christoph Ihl, Sebastian Bonnemeier

Role of Marketing Efforts on Customer Value Creation Using a Customer-Mix Model
Shameek Sinha, Leigh McAlister

Personalizing Customer Service in the Email Channel
Sang-Pil Han, Jae-Hyeon Ahn

Managing Customer Portfolios
Martin Boehm, Jaime Romero, Anna Downarowicz

TB10 – Junior Ballroom A

Issues in Competition Modeling

Chair: Bruce Clark

Predicting Competitors' Moves: The Value and Behavioral Antecedents of Predictive Accuracy
Lewis Lim, Sze Sze Wong

Incentives in Contests: To be a Winner or Not to be a Loser
Jaesoo Kim

Price and Quality Competition in a Three-Dimensional Vertical Differentiation Model
Yong Cao, Rachel R. Chen

The Social Cognitive Structure of Emerging Competitive Markets
Bruce Clark, David B. Montgomery, Bernard Marr

TB11 – Port McNeill

Sales Management II

Chair: Srinath Gopalakrishna

Individual Level Evaluation of Pharmaceutical Sales Representatives
Andre Bielecki, Sönke Albers

Planning Trade Show Expenditures in a Dynamic Competitive Setting
Srinath Gopalakrishna, Shrihari Sridhar

Price Delegation to the Salesforce: Back to Basics
Sung Ham, James Hess

TB12 – Parksville

Willingness to Pay Measurement

Chair: Eva Gerstmeier

Consumer's Willingness to Pay: A Critical Synthesis and Directions for Further Research
Le Gall-Ely Marine

Uncovering Consumer Willingness to Pay for Product Attributes Through Hedonic Price Modeling
Josue Martinez

Determination of Willingness-to-Pay for Multiple Price-Quantity Combinations
Christian Schlereth, Bernd Skiera

Comparing the Validity of Different Methods for Measuring Willingness-to-Pay
Eva Gerstmeier, Martin Spann, Bernd Skiera

TB13 – Orca

Brand Strategy

Chair: Burcu Tasoluk

OEM Perceptions and Behavior towards Supplier Brand Strength
Stefan Worm, Rajendra Srivastava

Branding a Country as an Educational Destination – Romania's Case
Alin Valentin Angheluta

The Effects of Brand Strategy and Customer Characteristics of Brand Revenue Premium
JianJun Zhu, Thomas Gruca, Lopo Rego

A Contingency Hierarchical Generalized Linear Model for Brand Associations
Burcu Tasoluk, Roger Calantone, Cornelia Droge

TB14 – Finback

Issues in Advertising

Chair: Georges Zaccour

The Effects of Focused, Unique, and Temporally Consistent Advertising Messages on Brand Sales
Bharat Sud, Robert Fisher, Kersi D. Antia

Flexible Modeling of Multiple IMC Threshold and Interaction Effects
Ceren Kolsarici, Demetrios Vakratsas

The Effect of the Diffusion of Ad Avoidance Technologies on Advertiser Strategies
Bikram Ghosh, Axel Stock

Advertising Strategies in a Fashion Licensing Contract
Georges Zaccour, Alessandra Buratto

TB15 – Granville

Best Practices for Effective Global Marketing

Chair: Corine Noordhoff

Solution Selling: Capabilities for Value Creation and Value Appropriation
Sebastian Bonnemeier, Ralf Reichwald, Christoph Ihl

MBA Job Preferences: Including Ethics and CSR
David B. Montgomery, Cathie Ramus

Centralization versus Decentralization of Marketing Activities in Leading Italian Firms
Eleonora Cattaneo, Carolina Guerini

Building Capabilities Through Vertical Relations: The Role of Tie Strength and Firm Memory
Corine Noordhoff, Kyriakos Kyriakopoulos

TB16 – Galiano

Multi-Product Marketing

Chair: Chakravarthi Narasimhan

B2B Banking Transactional, Lending and Savings Product Acquisition Sequences and Rates of Change
Guy Pearce

Individual Marketing, Product Differentiation and Tacit Collusion with Unobservable Demands
I-Huei Wu, Chyi-Mei Chen, Shan-Yu Chou

Intra-Firm Coordination of Product Management in a Supply Chain
Chakravarthi Narasimhan, Lingxiu Dong, Kaijie Zhu

Thursday, June 12th, 2008 3:00-4:30PM (TB)			
TB17 – Pavilion Ballroom D **Meet the Editors 2** Marketing Science (MKS) *Eric T. Bradlow* Journal of Service Research *Kay Lemon* Journal of Marketing *Roland Rust* International Journal of Research in Marketing *Stefan Stremersch, Donald R. Lehmann* Journal of Marketing Research (JMR) *Gerald J. Tellis*			

2008 INFORMS Marketing Science Conference

Thursday, June 12th, 2008 4:45-6:15PM (TC)

TC01 – Junior Ballroom D

Dynamic Structural Models

Chair: Harikesh Nair

Durable Goods Oligopoly with Innovation: Theory and Empirics
Ron Goettler, Brett Gordon

Uncertainty, Learning and Quantity Dynamics for Frequently Purchased Products
Sridhar Narayanan

Entry Timing and Pricing of Digital Video Discs in the U.S. Motion Picture Industry
Anirban Mukherjee, Vrinda Kadiyali

Quota Dynamics and the Intertemporal Allocation of Sales-force Effort
Harikesh Nair, Sanjog Misra

TC02 – Junior Ballroom C

Financial Market's Reaction to Marketing

Chair: Donald Lehmann

The Theory and Practice of Myopic Management
Natalie Mizik

Linking Brand and Customer Attitudinal and Behavioral Metrics to Financial Outcomes: A Latent Growth Modeling Approach
Sundar Bharadwaj, Arne Floh

The Under-appreciated Value of Marketing Metrics
Isaac Dinner, Donald Lehmann, Natalie Mizik

TC03 – Grand Ballroom D

Private Labels

Chair: Harald J. van Heerde

A Cross-continent Study of the Drivers of Consumers' Willingness to Pay a Price Premium for National Brands Over Private Labels
Harald J. van Heerde, Inge Geyskens, Jan-Benedict E. Steenkamp

The Reciprocal Relationship Between Private Label Use and Store Loyalty
Kusum L. Ailawadi, Koen Pauwels, Jan-Benedict E. Steenkamp

National Brands and Copycat Private Labels: Consumer Learning and Quality Spillover Effects
Maciej Szymanowski, Els Gijsbrechts

New Products, The Antidote to Private Label Growth? Who is Fighting Whom?
Katrijn Gielens

TC04 – Port Alberni

Social Influence and Self-Construal in Consumption

Chair: Arvid O. I. Hoffmann

Does Self-reflection Affect Product Evaluation?
Shun Yin Lam

"Building Character": Effects of Lay Theories of Self-control on the Selection of Products for Child
Catherine Yeung, Anirban Mukhopadhyay

Ptolemy vs. Copernicus: Self-Construal in Social Consumption
Sarah Moore, Gavan Fitzsimons

Investors' Susceptibility to Interpersonal Influences
Arvid O. I. Hoffmann, Thijs L.J. Broekhuizen

TC05 – Grand Ballroom C

New Product Diffusion-Cross Country Studies

Chair: Guy Yogev

Adoption of Value-Added M-Services: A Cross-National Investigation
Remco Prins, Barbara Becker, Peter C. Verhoef

The Demand for Size: An International Study on Optimal Product Attributes
Yuri Peers, Dennis Fok, Philip Hans Franses

Catch-Up, Leapfrogging, and Globalization: Dynamics of New Product Adoption Across Nations
Gerard J. Tellis, Deepa Chandrasekaran

The Diffusion of Freewares
Guy Yogev, Barak Libai, Eitan Muller

TC06 – Grand Ballroom B

Movie Marketing

Chair: Amit Joshi

Sources and Implications of Stardom: A Study of Star Power in the Motion Picture Industry
Xia Liu, Tridib Mazumdar, Yong Liu

Timing of New Products Introduction into Foreign Markets: An Empirical Analysis of Hollywood Movies
Reo Song, Venkatesh Shanka, Sanjay Jainr

Diffusion-based Modeling of Movie Type Success: An Evolutionary Perspective
Berna Devezer, Erkan Ozge Buzbas

Adapting to Succeed? Leveraging the Brand Equity of Bestsellers to Succeed at the Box-office
Amit Joshi, Huifang Mao

TC07 – Grand Ballroom A

Choice-Methods and Data

Chair: Terry Elrod

Using Auxiliary Data to Estimate Common Utility Origins with Discrete Choice Models
Lynd Bacon, Peter Lenk

Reality Check: Combining Survey and Market Data to Estimate Choice Models
Eleanor Feit, Mark Beltramo, Fred Feinberg

Modeling Cognitive Complexity to Predict Consideration Sets
Daria Silinskaia, Theodoros Evgeniou, Olivier Toubia, John R. Hauser, Rene Befurt

Partial Profile Choice Experiments
Terry Elrod, Keith Chrzan

TC08 – Port Hardy

Mood, Brand Familiarity, and Decision Frames

Chair: Nevena Koukova

The Effect of Weather on Consumer Spending
Kyle B. Murray, Adam Finn, Peter T. L. Popkowski Leszczyc, Fabrizio Di Muro

Mood Matching: The Importance of Fit Between Moods Elicited by TV Programs and Commercials
Joseph Lajos, Nailya Ordabayeva, Amitava Chattopadhyay

Not All Brands are Alike: The Role of Brand Familiarity in Product Placements
Mei-Ling Wei, Kelley J. Main, Eileen Fischer

Choosing Versus Rejecting Options for Products: A Mental Simulation Perspective
Nevena Koukova, Reetika Gupta

2008 INFORMS Marketing Science Conference

Thursday, June 12th, 2008 4:45-6:15PM (TC)

TC09 – Junior Ballroom B

CRM-System Implementation

Chair: Anita Basalingappa

Alignment of Customer Intention Value Networks with Corporate Performance Management
Sabine Wilfling, Ulrike Baumoel, Henrik Ickler

Customer Pyramid Analysis and Enhanced CRM in the Consumer Packaged Goods Industry
Gurram Gopal

Effectiveness of CRM on Customer Satisfaction and Performance in the Internet Banking of Taiwan
Hui-I Yao, Kok Wei Khong

Role of Relational Bonds in the Manifestation of Customer Loyalty
Anita Basalingappa, Subhas Managuli

TC10 – Junior Ballroom A

Dynamic Aspects of Competition

Chair: Benaissa Chidmi

On Monopolist Optimal Dynamic Marketing Mix Policies for the Diffusion of New Subscriber Service Innovations
Hani Mesak

An Empirical Model of Product Entry and Pricing
Federico Rossi

Late Mover's Strategic Quality Decisions
Byong-Duk Rhee, Sue Ryung Chang, S. P. Raj

Time-varying Duopoly Competition in Supermarket Industry: The Case of Seattle-Tacoma Milk Market
Benaissa Chidmi, Olga Murova

TC11 – Port McNeill

eCommerce-MultiChannel

Chair: M. Tolga Akcura

Search Versus Word-of-Mouth: Evidence from an Online Retailer
Jeonghye Choi, David Bell

The Impact of Introducing the Internet Channel on Vertical Strategic Interaction
Lu Hsiao

Customer Evolution in Sales Channel Migration
Sara Valentini, Scott Neslin

Strategic Online Channel Adoption
M. Tolga Akcura, Zafer Ozdemir, Sanjay Jain

TC12 – Parksville

Bundling and Pricing

Chair: Amiya Basu

Influence of Nonlinear Tariff Structures on Service Providers' Profitability
Tanja Stepanchuk, Christian Schlereth, Bernd Skiera

Optimal Pricing in the Wireless Service Industry
Ping Xiao, Tat Chan, Chakravarthi Narasimhan

Analysis on Preferences for Price Plans of Public Utilities; Case Study about Electricity Price
Hisanori Goto

Impact of Customer Knowledge Heterogeneity on Bundling Strategy
Amiya Basu, Padmal Vitharana

TC13 – Orca

Branding

Chair: R. Venkatesh

Are Store Brands 'Brands'? Estimating Store Brand Equity from Aggregate Data
Paul Nelson, Sudhir Voleti

Product Repositioning and Brand Inertia: The US Automobile Market
Sengun Yeniyurt, S. Chan Choi, Janell D. Townsend

Nation Equity in Personal Computer Purchases in China
Junhong Chu

The Types, Mechanisms and Effectiveness of Co-branding: A Conceptualization & Managerial Guidelines
R. Venkatesh, Rabikar Chatterjee, Casey Newmeyer

TC14 – Finback

Advertising Strategy

Chair: Dan Horsky

On the Effect of Diversity in Consumer Tastes and Informative Advertising on Product Line Design
Chuan He, Wilfred Amaldoss

A Model of Image Advertising
Dina Mayzlin, Jiwoong Shin

A Positive Theory of Negative Advertising
Mitchell Lovett, Ron Shachar

The Advertising Agency Selection Contest: An Auction with Bi-dimensional Bidders
Dan Horsky, Sharon Horsky, Michael Landsberger

TC15 – Granville

Marketing Strategy and Firm Performance

Chair: Vinay Kanetkar

Wall Street Reaction to Top Marketing Executive Succession: An Event Study Perspective
Rui Wang, Rajdeep Grewal

The Effect of Customer Based Brand Equity on Financial Analysts
Josip Medjedovic, Gordon Thompson, Jochen Becker

Impact of Price Change on Profitability: Theory and Empirical Evidence
Vinay Kanetkar

TC16 – Galiano

Retail Management

Chair: John H. Summey

Risk Perception on Logistics Outsourcing of Retail Chains-model Development and Empirical Verification in Taiwan
Ming-Chih Tsai, Chun-Hua Liao

When and How Does a Retail Roof Policy Increase Profitability
Xubing Zhang, Yong Cao

Campaign in the Wrong Chain? Sources of National Brand Sales at Discount Stores
Barbara Deleersnyder, Oliver Koll

New Retail Technology Repatronage Decision
John H. Summey, Ramendra Thakur

2008 INFORMS Marketing Science Conference

Friday, June 13th, 2008 8:30-10:00AM (FA)

FA01 – Junior Ballroom D

Search Engines and Marketing I

Chair: Kartik Hosanagar

Search Engine Advertising: Pricing Ads to Context
Catherine Tucker, Avi Goldfarb

Quality Signaling and Revenue Implications of Payment Innovations in Internet-Based Advertising: A Theoretical and Empirical Investigation
Siva Viswanathan, Chris Dellarocas

An Empirical Analysis of Sponsored Search Performance in Search Engine Advertising
Anindya Ghose, Sha Yang

Location, Location and Location: An Analysis of Profitability and Position in Online Advertising Markets
Ashish Agarwal, Michael Smith, Kartik Hosanagar

FA02 – Junior Ballroom C

Service Marketing

Chair: Rachel R. Chen, Yinghui Yang

Buyer-seller Relationships and Customer Lifetime Value
Gila E. Fruchter, Simon P. Sigué

Probabilistic Goods and Probabilistic Selling: A New Pricing Tool For Retailers
Scott Fay, Jinhong Xie

Should Captive Sardines be Compensated? Serving Customers in a Confined Zone
Rachel R. Chen, Yinghui Yang, Eitan Gerstner

Managing Quality with Constrained Capacity in Equilibrium
Steven Shugan, Aydin Alptekinoglu

Customer Bill of Right: Who Benefits?
Yinghui Yang, Rachel R. Chen, Eitan Gerstner

FA03 – Pavilion Ballroom D

Marketing Meets Design

Chair: Gursel Ilipinar, Judith Lynne Zaichkowsky

Design Orientation as a Driver of Organizational Culture
Giulia Calabretta, Jordi Montaña, Oriol Iglesias, Isa Moll

Introducing Design Orientation as an Aspect of New Product Development Success
Ian Parkman, Keven Malkewitz

Trading off Design for Brand Name
Judith Lynne Zaichkowsky, Gorm Gabrielsen, Tore Kristensen

Role of Design Management in Service Innovation
Gursel Ilipinar, Wesley J. Johnston, Jordi Montaña, Rajendra Srivastava

Discussion Panel on Design
Colleen Collins

FA04 – Port Alberni

Influences on Purchase: Attributions and Information From Others

Chair: Frank van Rijnsoever

Family Purchase Decision Making in India: Impact of Couples' SRO, WWP AND RRC
Duraipandian Israel

Defending Against Future Loss: The Impact of Regulatory Focus on an Observing Customer's Attribution
Elisa Ka Yan Chan, Lisa C. Wan, Lei Su

When Do Customers Listen to Others? Determinants of Customers' Use of Third-Party Information
Mario Rese, Annika Wilke, Bülent Gögdün

Knowledge Base and the Use of Channels for Information Search: The Case of Car Purchasing
Frank van Rijnsoever

FA05 – Pavilion Ballroom C

Managing New Product Introductions

Chair: Douglas MacLachlan

Why, When and How Prices Land: Empirical Evidence from the Video Game Industry
Carlos Mireles, Dennis Fok, Philip Hans Franses

New Product Introduction Strategies of Asymmetric Competitors
Thanh Tran, Axel Stock, Ramarao Desiraju

Key Success Factors in 3G Services Adoption: A Cross-Cultural Consumer Perspective
Tang Lei

How Should Companies Price New Products When Customers are Unsure About Their Willingness to Pay?
Douglas MacLachlan, Joo Heon Park, Edwin Love

FA06 – Pavilion Ballroom B

Word-of-Mouth in Movie Marketing

Chair: Hiroshi Onishi

How the Interplay Between Advertising, Media Coverage and Word of Mouth Affect Supply and Demand of Motion Pictures?
Guillermo Armelini, Julian Villanueva, Jorge Gonzalez

A New Approach to Measure the Valence of WOM
Kung-Hsin Shao, Lichung Jen

Marketing Activity, Blogging and Sales
Hiroshi Onishi, Puneet Manchanda

FA07 – Pavilion Ballroom A

Choice-Statistical Methods

Chair: Thomas Steenburgh

Non-compensatory Choice Applications
Ty Henderson, Neeraj Arora

The Effects of Measurement and Specification Error in Integrated Choice-latent Variable Models
Garrett Sonnier, Andrew Ainslie

Multivariate Nested Logit: A General Extension of Nested Logit for Multi-category Multi-item Choice
Kyuseop Kwak, Gary Russell, Sri Devi Duvvuri

Choice Among Similar Alternatives Revisited
Thomas Steenburgh

FA08 – Port Hardy

Consumer Decision Making

Chair: Koert Van Ittersum

Ambiguity Aversion and the Power of Established Brands
Luc Wathieu, A.V. Muthukrishnan

The Role of Perceived Unfairness in the Decision Making
Fue Zeng, Wenyu Dou, Chenting Su, Zhilin Yang

Evaluating the Benefits of Distraction on Product Evaluations: The Mindset Effect
Davy Lerouge

Exploring Adaptive Estimation Behavior
Koert Van Ittersum, Joost M.E. Pennings, Brian Wansink

2008 INFORMS Marketing Science Conference

Friday, June 13th, 2008 8:30-10:00AM (FA)

FA09 – Junior Ballroom B

Dynamic Effects in Predictive Modeling

Chair: Thomas Reutterer

Customer Targeting: Controlling for Endogeneity in Marketing Mix Decisions
Shanfei Feng, Trichy Krishnan, Suman Ann Thomas

Detecting Meaningful Patterns of Profitability Dynamics in Evolving Customer-Firm Relationships
Thomas Reutterer, Regina Tüchler

Predicting What Type of Customer You Will be Tomorrow: A Stochastic Segmentation Model
Tanya Mark, Mark Vandenbosch, Katherine Lemon

Including the Effects of Prior and Recent Contact Effort in a Customer Scoring Model
Subom Rhee, Shelby McIntyre

FA10 – Junior Ballroom A

Channel Competition

Chair: Wei-yu Kevin Chiang

Coordination Incentives in Competing Supply Chains
Sudheer Gupta, Harish Krishnan

Revenue Management with Strategic Consumers: Last-Minute Selling and Opaque Selling
Kinshuk Jerath, Serguei Netessine, Senthil Veeraraghavan

Channel Structure and Competition in Multiple Channel Marketing Systems
Manish Kacker

Dynamic Price Interactions in a Distribution Channel
Wei-yu Kevin Chiang

FA11 – Port McNeill

eCommerce-Recommendation Systems

Chair: Andrea Godfrey

The Effect of Network Structure on Demand in Electronic Commerce
Gal Oestreicher-Singer, Arun Sundararajan

My Mobile Music: An Adaptive Personalization System for Digital Audio Players
Tuck Siong Chung, Roland Rust, Michel Wedel

Recommending a Recommendation Agent: The Impact of Message Framing on Using a Recommendation Agent
Clemens Koehler, Els Breugelmans, Benedict Dellaert, Ko de Ruyter

Attribute-based Co-clustering Recommendation Systems and Factors that Impact Recommendation Quality
Andrea Godfrey, Meghana Deodhar, Maytal Saar-Tsechansky, Leigh McAlister

FA12 – Parksville

Factors Influencing Price Perception

Chair: Sanjeev Tripathi

An Empirical and Experimental Analysis of Customer Switching Between Two- and Thee-part Tariff Plans
Naufel Vilcassim, Eva Ascarza, Marco Bertini

An Integrated Model of Multiple Types of Reference Prices on Satisfaction
Felix Tang, Jian-min Jia

Extreme Price Points and Their Effects on Brand Purchase
Oded Lowengart, Sanjoy Ghose

Perceived Price Unfairness: When less is more
Sanjeev Tripathi, Abraham Koshy

FA13 – Orca

Branding Issues

Chair: Joseph Chang

Customer-brand Relationship: Two Empirical Studies on an Integrative Model
Hongwei He, Yan Li

The Constitutional Elements of Online Brand Identities
Tobias Kollmann, Christina Suckow

Customer's Experience and Brand Image
Adriana Gigliotti, Gina Pingitore

The Indicativeness of Brand Extension Information on the Judgment of Family Brand Entitativity
Joseph Chang, Bob Wu

FA14 – Finback

Advertising Issues

Chair: Jie Zhang

Understanding Voter Response to Political Advertising Through Election Cycles with Limited Information
Hai Che, P.B. (Seethu) Seetharaman

The Role of Advertising and Consumer Interest in the Motion Picture Industry
Andrei Strijnev, Brian Ratchford, Dongling Huang

Moment-to-moment Optimal Branding in TV-Commercials: Preventing Avoidance by Pulsing
Thales Teixeira, Rik Pieters, Michel Wedel

Sales Effects of Attention to Feature Advertisements: A Bayesian Mediation Analysis
Jie Zhang, Michel Wedel, Rik Pieters

FA15 – Granville

Organization Theory Issues in Marketing

Chair: Qiong Wang

Not Complacent but Scared: An Alternative Explanation for Strategic Inertia Among Successful Firms
Alexander Rusetski, Lewis Lim

Shrinking the Organizational Hierarchy - The Case of Multi-unit Franchising
Rupinder Jindal

The Roles of Strategic Actions in Making Sense of Market Information and Achieving Competitive Advantage
Qiong Wang, Yinghong Wei

FA16 – Galiano

Retail Category Management

Chair: Debu Talukdar

A Category Management Model of Dynamic Retailer Decisions
Karthik Sridhar, Rajesh Shah, Ram Bezawada

Joined at the Hip: How Retailers and Products Affect Mutual Consumer Satisfaction
Purush Papatla, Feng Liu, Yu Fan

Retailer Coupons: Are Private Label-Prone Customers Profitable Targets?
Salome Nies, Martin Natter

Opportunity Costs of SKU Reductions for Supermarket Retailers
Debu Talukdar, Amresh Kumar

2008 INFORMS Marketing Science Conference

Friday, June 13th, 2008 10:30-12:00PM (FB)

FB01 – Junior Ballroom D

Online Customization: Economic and Cognitive Considerations

Chair: Michael Braun

The Pricing of Key Words
Song Yao, Carl Mela, Alan Montgomery

Modeling Consumer Search for Making Online Advertising Decisions
Alan Montgomery

Cognitive Styles and Website Design
Michael Braun, Glen L. Urban, Clarence Lee, John R. Hauser

Morphing Websites to Match Individual Cognitive Styles
John R. Hauser, Michael Braun, Glen L. Urban, Guilherme Liberali

FB02 – Junior Ballroom C

Identifying and Estimating Variance Components in Choice Experiments

Chair: Cam Rungie, Len Coote, Towhidul Islam

Latent Variable Modeling of Consumer Brand Preferences Using Best-worst Experiments
Len Coote, Bettina Cornwell

The McFadden Trial: Variances for Repeated Binary Choice Under Bernoulli and McFadden (RUT) Conditions
Cam Rungie

Separating the Variance in Choice Within and Between Individuals: A Significant Proportion of So-called Preference Heterogeneity is in Fact Due to Variability Within Individuals
Towhidul Islam, Jordan Louviere

FB03 – Pavilion Ballroom D

Special Session on Marketing and Health

Chair: Stefan Stremersch

Investigating Dynamic Multiproduct Sales Impacts of Pharmaceutical Product Life-cycle Extension Strategies: Insights from the Rx and OTC Antacids Market Following Prilosec OTC Entry
Murali K. Mantrala, Yihui (Elina) Tang, Gila E. Fruchter

Modeling the Effects of Marketing Expenditures on the Components of a Diffusion Model for New Prescription Drugs
Jaap E. Wieringa, Peter S.H. Leeflang, Enar Ruiz Conde

A Multi-category Model of Physician Prescription and Detailing
Xiaojing Dong, Pradeep Chintagunta, Puneet Manchanda

The International Launch and Pricing of Pharmaceutical Innovations
Isabel Verniers, Stefan Stremersch, Christophe Croux

FB04 – Port Alberni

Network Effects and Social Influence

Chair: Michael Haenlein

Identify the Influentials and Imitators in Fashion Contagion Using Scanner Data
Jiali Ding, Raghu Iyengar, Guoqun Fu, John Zhang

Social Communication and Durable Goods Pricing
Liang Guo, Hao Zhao, Ying Zhao

The Effects of Social Networks on Value Perceptions
Sheila Goins, Thomas Gruca

A Social Network Analysis of Customer-Level Revenue Distribution
Michael Haenlein

FB05 – Pavilion Ballroom C

New Product-Forecasting

Chair: Taesun Kim

Pre-Launch Forecasting of Sales and Product Evolution
Yair Orbach, Gila Fruchter

Roadmapping 3G Mobile TV: Scenario Planning Through Repeated Cross Impact Handling
Margherita Pagani

The Exploration of Systematic Change in Bass Model Parameters Using Hierarchical Bayes Modeling
Taesun Kim, Frank M. Bass, Portia Isaacson Bass

FB06 – Pavilion Ballroom B

DVD and Entertainment Media Marketing

Chair: Pilsik Choi

Diffusion of Media Products
Michel Clement, Christina Schmidt-Stoelting, Sönke Albers

The Impact of Advertising and Promotion on Customer Spending in the Media Download Industry
Kerstin Reimer, Oliver J. Rutz

Competition Between a Multichannel Retailer and an Online Retailer in the DVD Rental Market
Pilsik Choi, Jooseop Lim

FB07 – Pavilion Ballroom A

Choice-Marketing Mix Response

Chair: Sri Devi Duvvuri

Do Retailer Return Policies Really Matter on Consumer Choice
Clara Agustin, Sweta Thota, Prashant Yadav

Incorporating Consumer Inventory into Demand for Storable Goods
Jaehwan Kim, Greg Allenby, Jeff Dotson

Latent Shopping Orientation Dynamic, Shopping Path, and In-store Purchase Conversion
Xiaoling Zhang, Shibo Li, Raymond Burke

When Quantity Matters: A Multivariate Tobit Model
Sri Devi Duvvuri

FB08 – Port Hardy

Influences on the Consumer Choice Process

Chair: Xin Ge

When Choice is Motivating: Increasing Options During Product Configuration Makes You a Maximizer
Claire Lin, Jonathan Levav

How Multiple Anchors Affect Judgment: Evidence from the Lab and eBay
Ye Li, Ting Zhu, Yan Zhang

More Comparison and a Smarter Choice? Not Necessarily
Yuchen Hung, Catherine Yeung

Differential Search Costs and Consumer Choice
Xin Ge, Gerald Häubl

2008 INFORMS Marketing Science Conference

Friday, June 13th, 2008 10:30-12:00PM (FB)

FB09 – Junior Ballroom B

Customer Lifetime Value and Wallet Share

Chair: Eva Ascarza

Share of Wallet: Considering Interdependency of Categories
Sungha Jang, Brian Ratchford

Wallet Estimation Models: A Bottom Up Approach
Asya Takken, Paulo Costa

Predicting Customer Wallet
Nicolas Glady, Christophe Croux

Modeling Renewal and Usage Behavior in Contractual Settings
Eva Ascarza, Bruce Hardie

FB10 – Junior Ballroom A

Strategic Alliances

Chair: Ursula Sullivan

Innovation Alliance Strategies: Alignment of Resource Access and Interfirm Governance
Jongkuk Lee, William Qualls

Transforming Social Capital into Financial Value in IPOs: The Role of Absorptive Capacity
Guiyang Xiong, Sundar Bharadwaj

Driving Profits Through Supply Chain Alliances
Ursula Sullivan

FB11 – Port McNeill

eCommerce-The Long Tail Effect

Chair: Anita Elberse

Blockbuster Culture's Next Rise or Fall: The Impact of Recommender Systems on Sales Diversity
Kartik Hosanagar, Daniel Fleder

Long Tail - An Investigation of Underlying Demand Effects
Jochen Eckert, Bernd Skiera, Oliver Hinz

The Impact of (Legal) Digital Distribution on Music Sales: Who Benefits?
Anita Elberse

FB12 – Parksville

Pricing

Chair: *Jorge Silva-Risso*

Pay-What-You-Want: Being Better Off When Customers Determine the Price?!
Ju-Young Kim, Martin Natter, Martin Spann

Lease Versus Buy: The Rational Choice
Srabana Dasgupta, Prokriti Mukherji

Pricing of Flexible Products in Service Industries: An Empirical Analysis at a Low-Cost Airline
Martin Spann, Stefan Mang, David Post

Scarcity Rents in Car Retailing: Evidence from Inventory Fluctuations at Dealerships
Jorge Silva-Risso, Florian Zettelmeyer, Fiona Scott Morton

FB13 – Orca

Factors Influencing Brand Equity and Image

Chair: Qiang Fei

Relationship-based Brand: A New Perspective in Service Branding
Farshad Bekhradi, Hamzeh Rayej, Tahmorth Hasangholipoor

Assessing the Effects of Product-Based VCs on Brand Selection: A Longitudinal Study
Yiyan Li, Kineta Hung

How Competition and Environment Alter Brand Architecture: An Analysis of Brand-Usage Interactions
Kim Seroto, Mukesh Bhargava

Brand Equity and Product Recalls
Qiang Fei, Lopo Rego

FB14 – Finback

New Media Advertising

Chair: Peter Danaher

Competing 'Creatively' in Online Markets: Evidence from Sponsored Search
Animesh Animesh, Siva Viswanathan, Ritu Agarwal

Factors Influencing Consumer Acceptance of Mobile Marketing: A Two Country Study
Fareena Sultan, Tao (Tony) Gao, Andrew J. Rohm

Optimal Internet Media Scheduling
Peter Danaher, Laoucine Kerbache, Janghyuk Lee

FB15 – Granville

Market Orientation, Customer Loyalty, and Competition

Chair: Yunchuan Liu

A Case Study of Neuro-Fuzzy Model Applied to Buyer's Response Prediction for a Plastic Technique R&D
Yu-Chih Bau, Shihyu Chou, Chin-Shien Lin, Ya-Wen Lee

An Empirical Study of Buyer's Response Determinants for R&D Service
Shihyu Chou, Yu-Chih Bau, Ya-Wen Lee, Chin-Shien Lin

Strategic Orientations in a Competitive Environment: Following the Road not Taken
Amir Grinstein, Elie Ofek, Rohit Deshpande

The Customization of Products and Distribution Channel Management
Yunchuan Liu, Yang Liu

FB16 – Galiano

Location Issues in Retailing

Chair: Dan Putler

Matching Store Location and Configuration with the Spatial Heterogeneity in Sales Potential
Auke Hunneman, J. Paul Elhorst, Tammo H.A. Bijmolt

New Store Entry and Market Share Change Prediction: Geographic Segment Decompositional Approach
Jungki Kim, Duk Bin Jun, Myoung Hwan Park, Kyoung Cheon Cha

Simplifying the Retail Environment in Store Location Decisions: A Variable Radius Density Method
Dan Putler, Tieshan Li, Charles Weinberg

2008 INFORMS Marketing Science Conference

Friday, June 13th, 2008 1:30-3:00PM (FC)

FC01 – Junior Ballroom D

Advertising by "Words" in Internet Paid Search and Mobile Media

Chair: Randolph E. Bucklin

An Analysis of the Profitability of Different Bidding Heuristics in Search Engine Marketing
Eva Gerstmeier, Bernd Skiera, Tanja Stepanchuk

Forecasting Performance of Paid Search Engine Advertising Buys: A Semantics Discovery Approach
Michael Trusov, Anand V. Bodapati

Predictive Power of Visual and Text-based Features: The Case of Multimedia Offers to Cell Phone Users
Catarina Sismeiro, Sebastiano Battiato, Giovanni Maria Farinella, Giovanni Giuffrida, Giuseppe Tribulato

Putting the Advertising into Paid Search
Randolph E. Bucklin, Oliver J. Rutz, Michael Trusov

FC02 – Junior Ballroom C

Sales Force Design and Compensation Strategies

Chair: Anne T. Coughlan

Why Do Firms Contract on Sales When Salespeople Influence Margins?
Kissan Joseph, Alex Thevaranjan

Product Line Extensions and the Redesign of Salesforce Compensation: A Principal-agent Perspective
Sumitro Banerjee, Alex Thevaranjan

Delegation of Pricing Authority to the Sales Force - Its Measurement and Determination
Manfred Krafft, Heiko Frenzen, Ann-Kristin Hansen, Simone Schmidt, Murali K. Mantrala

Optimal Sales Force Diversification and Group Incentive Payments
Fabio Caldieraro, Anne T. Coughlan

FC03 – Pavilion Ballroom D

Managerial Decision Making

Chair: Richard Staelin

Managerial Judgment of Customer Value
Joe E. Urbany, Raymond Kordupleski, James H. Davis

Are All Managers Created Equal?
Avi Goldfarb, Botao Yang

Using Expectations Data to Infer Managerial Objectives and Choices
Tat Y. Chan, Barton H. Hamilton, Christopher Makler

Controlling the Odds: Skill or Conceit?
Abhijit Guha, Bill Boulding, Richard Staelin

FC04 – Port Alberni

Social Networks and Market Efficiency

Chair: Jie Feng

Factors Affect Purchase Intent and Actual Purchase in Japanese Digital Music Player Market
Tomoko Kawakami

When Word-of-mouth Marketing Works: An Agent-Based Simulation Approach
Makoto Mizuno

The Network Value of a Customer
Tali Gal, Barak Libai

An Investigation of the Antecedents of Online Word of Mouth: Roles of Product Attributes, Satisfaction and Expert Opinions
Jie Feng, Purush Papatla

FC05 – Pavilion Ballroom C

Emerging Issues in Software and Technology Markets

Chair: Rajendran Sriramachandra-Murthy

The Performance Impact of Technology Outsourcing
Prokriti Mukherji, Madhu Viswanathan, Om Narasimhan, Rajesh Chandy

Enterprise Software as a Service
Bao-Jun Jiang, Pei-yu Chen, Tridas Mukhopadhyay

Pricing Strategies for Hybrid Innovations
Jeff Meyer, Venkatesh Shankar, Leonard L. Berry

Is Proprietary Software Under Threat? An Investigation Into the Adoption of Open Source Software
Rajendran Sriramachandra-Murthy, Monica Hodis, Siva Balasubramanian

FC06 – Pavilion Ballroom B

Pharmaceutical Marketing

Chair: Tulikaa Bhatia

A New Framework for Formulating Pharmaceutical Marketing Strategies
Khasha Dehnad

Bucking the Trend: A Data Fusion Approach to Forecast the Implications of a Large Policy Shift
Eelco Kappe, Stefan Stremersch, Sriram Venkataraman

To Switch or Not to Switch: Influence of Generics on Physician Prescription Behavior
Tulikaa Bhatia, Lakshman Krishnamurthi, Karsten Hansen

FC07 – Pavilion Ballroom A

Choice-Applications

Chair: Andres Musalem

Revisiting the Income Effect: Gasoline Prices and Grocery Purchases
Sofia Villas-Boas

A Spatial Model of the Trade-up Decision
Ohjin Kwon, S. Siddarth

Empirical Analysis of the Impact of the Product Assortment Information Structure on Brand Choice
Tae-kyun Kim, Sivaramakrishna Siddarth

Structural Estimation of Retail Demand Under Unobserved Out of Stocks
Andres Musalem, Marcelo Olivares, Eric T. Bradlow, Christian Terwiesch, Daniel Corsten

FC08 – Port Hardy

Craving and Justification in Hedonic Consumption

Chair: Cait Poynor

A Hierarchical Generalized Linear Model of Craving and Choice in Motivated Behaviour
Ji Lu, Laurette Dube, Antoine Bechara

The Choice is Right in Front of Us: Information Processing in Hedonic Choice
Remi Trudel, Kyle Murray

Seize the Day! Enouraging Indulgence for Hyperopic Consumers
Cait Poynor, Kelly Haws

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FC09 – Junior Ballroom B

Predictive Modeling-Applications

Chair: Zainab Jamal

Combining Machine Learning and Linear Programming for Marketing Optimization: A Case Study
Abdel Labbi

A Case Study on Service Upgrading Prediction
Georgios Kourogiorgas, Ozren Despic, Emmanuel Thanassouli, Veronica Wong

Predicting Customer Profitability with Financial Products
Wen Yin

Identify Best Customers for an Email Campaign: A Discrete Choice Panel Data Model for Rare Events
Zainab Jamal, Krishna Venkatraman, Hsui-Khuern Tang, Alex Zhang

FC10 – Junior Ballroom A

Pricing Competition

Chair: Gary Russell

Moderating Factors of Immediate, Dynamic, and Long-run Cross-price Effects
Csilla Horvath, Dennis Fok

Decomposing the Congestion Effect and the Inference Effect of Competition: A Field Experiment
Juanjuan Zhang, Catherine Tucker

The Competitive Implications of a "No-Haggle" Price Policy: The Case of the Access Toyota Program
Xiaohua Zeng, Srabana Dasgupt, Charles Weinberg

Analyis of Brand Price Competition Using Measures of Brand Similarity
Gary Russell, Ann Petersen, Sri Devi Duvvuri, Suresh Divakar

FC11 – Port McNeill

eCommerce-Online Information Search

Chair: Benedict Dellaert

Characterizing the Online Search Patterns of the Most Valuable Customers for an E-Commerce Site: A Quantile Regression Approach
Jesheng Huang, Lichung Jen

Information Acquisition Through Web Browsing: A Structural Model of Sequential Search with Learning
Suman Ann Thomas, Surendra Rajiv, Junhong Chu, Khim Yong Goh

Local Behavioral Influences in Consumer Product Search
Benedict Dellaert, Bas Donkers, Gerald Haeubl

FC12 – Parksville

Price Perception

Chair: Eric Dolansky

Dynamic Store Price Image Formation and Category Pricing
Carlos Lourenço, Richard Paap, Els Gijsbrechts

The Effect of Limited Search Horizons on Consumers' Price Search Strategy
James Lemieux, Robert Peterson

Using Price Cues
Eric Anderson

The Impact of the Perceived Variance of Price Sequence on Preference and Choice
Eric Dolansky, Mark Vandenbosch, Kyle Murray

FC13 – Orca

Brand Measurement and Management

Chair: Mark Ratchford

A Theory of Six Sigma and Brand Strategies
Teck Yong Eng, Yoanna Moguel

Emotions in Consumer-based Brand Equity: Reconceptualizing Antecedents, Measures and Consequents
Luming Wang, Adam Finn

Measuring Category Brand Relevance: A Cross-country Study
Franziska Voelckner, Marc Fischer, Henrik Sattler

The Effect of Ingredient Branding Strategies on Vertically Differentiated End-products
Mark Ratchford, Laura Kornish

FC14 – Finback

Advertising and Sponsorship

Chair: David Schweidel

Getting into Your Head(ache): Advertising of OTC Analgesics
Jura Liaukonyte, Simon Anderson, Federico Ciliberto

Exclusive Program Sponsorship: Theory and Evidence
Yi Zhu, Kenneth Wilbur

Automotive Advertising
Linli Xu, Sivaramakrishna Siddarth, Kenneth Wilbur

An Integrated Model of Television Tuning Behavior
David Schweidel, Robert Kent

FC15 – Granville

Financial Markets and Marketing

Chair: Ashwin Malshe

Should Marketers Listen to Wall Street? Poor Stock Performance and Innovation Risk Taking
Koen Pauwels, Eric Ghysels

The Effect of Market-based Business Capabilities on Business Performance
Janny Hoekstra, Peter Zwart, Mostafa Aakouk

Market-based Assets and the Cost of Capital
Alexander Himme, Marc Fischer

The Impact of Branding Strategy on Liquidity and Investors' Transactions Costs
Ashwin Malshe, Srinivasan Krishnamurthy, Yiuman Tse, Manoj Agarwal

FC16 – Galiano

Retail Store Choice and Competition

Chair: Ryan Luchs

Competing with Big-box Retailers
Qingyi Huang, Vincent Nijs

Competition Between Food Retailing Formats
Wenbin Sun, Rahul Govind, Charles Ingene

Store Loyalty as a Category-Specific Trait - What Drives It?
Qin Zhang, Manish Gangwar, P.B. (Seethu) Seetharaman

A Dynamic Structural Model of Store Choice
Ryan Luchs, Baohong Sun, Jeffrey Inman

2008 INFORMS Marketing Science Conference

Friday, June 13th, 2008 3:30-5:00PM (FD)

FD01 – Junior Ballroom D

Search Engines and Marketing Science: An Industry Panel

Chair: Arvind Rangaswamy

Enterprise Search and Marketing: The User Revolution
Zia Zaman

Search Engines, Contextual Advertising, and Marketing Science
Jim Oliver

From Generic to Branded: A Model of Spillover in Paid Search Advertising
Oliver J. Rutz, Randolph E. Bucklin

FD02 – Junior Ballroom C

Frontiers in Marketing Channels

Chair: Preyas Desai

Channel Management with Product Returns
Anne T. Coughlan, R. Canan Savaskan, Jeffrey D. Shulman

Store-within-a-store
Kinshuk Jerath, John Zhang

Choosing the Best Channel Structure in a Multi-brand Multi-channel Market
Eunkyu Lee, Rex Du, Richard Staelin, Weon Sang Yoo

Digital Music Set Free: The Flip Side of DRM
Preyas Desai, Debu Purohit, Dinah Vernik

FD03 – Pavilion Ballroom D

Alternative Preference Measurements: New Methods and Insights

Chair: Min Ding, Young-Hoon Park

Barter Markets for Conjoint Analysis
Eric T. Bradlow

An Improved Method for the Quantitative Assessment of Customer Priorities
Seenu Srinivasan, Gordon Wyner

Stability of Screening Rules
William Moore, Ekaterina Karniouchina

A Choice Model of Bundles Features and Meta-attributes: An Application to Product Design
Vithala R. Rao

FD04 – Port Alberni

Network Externalities and Self-Selection

Chair: Ernan Haruvy

Measurement of Indirect Network Effects in the Market for Flex-fuel Vehicles and E85 Ethanol
Scott Shriver, Harikesh Nair, Wesley Hartmann

The Decomposition of Promotional Response Across Four Types of Consumer Groups
Kanghyun Yoon, Thanh Tran

A Comparison of Different Methods to Separate Treatment from Self-Selection Effects
Sonja Gensler, Peter Leeflang, Martin Boehm, Bernd Skiera

An Experimental Investigation of Buyer Determined Procurement Auctions
Ernan Haruvy, Elena Katok

FD05 – Pavilion Ballroom C

Organizational Dynamics and Innovation

Chair: U. N. Umesh

Patterns in MNC R&D Locations in the 21st Century
Andreas Eisingerich, Gerard J. Tellis, Rajesh Chandy, Jaideep Prabhu

What? When? Why? Dynamics of Learning and Innovation in the Knowledge Economy
Chirag Patel

Entrepreneur's Market Development and Business Growth Strategies
U. N. Umesh, Elina Petrova

FD06 – Pavilion Ballroom B

Health Marketing

Chair: Avinandan Mukherjee

Doctors' Orders: Illness, Compliance, and Spatially-Targeted Marketing
Rahul Govind, Nitika Garg, Charles Ingene, Wenbin Sun

The Salience of Bad Experiences in Physician Learning
Nuno Camacho, Bas Donkers, Stefan Stremersch

A Meta-Analysis of Consumer Compliance with Healthcare
Avinandan Mukherjee

FD07 – Pavilion Ballroom A

Multiattribute Models

Chair: Anita Prinzie

Estimation of Individual Level Multi-attribute Utility from Ordered Paired Preference Comparisons
Sangwoo Shin, Paul Nelson, Dan Horsky

Level-individualization in Conjoint Analysis: A New Approach to Preference Measurement
Frank Liess, Markus Voeth, Uta Herbst

Do All Brands Gain Equally When New Functionalities are Added to a Base Product?
Tripat Gill, Jing Lei

Exploiting the Interaction Between Hidden Processes for Cross-selling Financial Services
Anita Prinzie, Dirk Van den Poel

FD08 – Port Hardy

The Importance of Culture and Ethnicity in Consumer Behavior

Chair: Nikos Kalogeras

Predicting and Understanding Chinese Consumers' Intention to Purchase Luxury Goods: An Empirical Test of the Theory of Planned Behavior
Ling Gao, Zhi-ming Zhang, Chester Kin-man To, Yong-jin Wang

Do Perceptions of Service Quality Vary for Different Ethnic Groups? An Empirical Investigation
Subir Bandyopadhyay, Manoj Pardasani

Consumer Risk Behavior in Times of Crises: A Cross-cultural Study
Nikos Kalogeras, Joost, M.E. Pennings, Koert Van Ittersum

2008 INFORMS Marketing Science Conference

Friday, June 13th, 2008 3:30-5:00PM (FD)

FD09 – Junior Ballroom B

Predictive Modeling-Methods

Chair: Makoto Abe

Semi-supervised Learning for Response Modeling
Sungzoon Cho, Hyunjung Shin, Seong-seob Hwang, Douglas MacLachlan, Hyoung-joo Lee

Contextual Determinants of the Predictive Accuracy of Binary Prediction Models
Bas Donkers, Aurélie Lemmens, Peter C. Verhoef

Optimizing the Value of Incentives for New Customers
Jeanette Heiligenthal, Bernd Skiera

Counting your Customers' One by One: A Hierarchical Bayes Extension to the Pareto/NBD Model
Makoto Abe

FD10 – Junior Ballroom A

Time Series Market Analysis

Chair: Hernan Bruno

Structural Dynamics of Competition and its Effects on Long-term Customer Profitability
Jens Keller, Sven Reinecke

Dynamic Customer Management on Duration Time Structure
Geonha Kim, Dae Ryun Chang

The Impact of Pricing on Customer Profitability: Evidence From an Industrial Market
Hernan Bruno, Bruce Hardie, Shantanu Dutta

FD11 – Port McNeill

eCommerce-Consumer Choice and Learning

Chair: Wenzel Drechsler

The Effect of Internet Adoption on Catalog Customers' Buying Behavior
Junzhao Ma, Eric Anderson, Karsten Hansen

The Impact of Internet Adoption on Customer Purchasing Behavior in Direct Marketing
Xiaojing Dong, Kirthi Kalyanam, Pradeep Chintagunta

Does Opening a Physical Store Change Customer Behavior?
Yantao Wang, Eric Anderson, Karsten Hansen

The Impact of Visualizing a Product's Price History at Price Comparison Sites on Consumer Decisions
Wenzel Drechsler, Martin Natter

FD12 – Parksville

Price Promotions and Price Discrimination

Chair: Amit Pazgal

Market Segmentation for Pricing Strategy
Yoshiyuki Okuse

Endogenous vs. Exogenous Wholesale Prices During Instant Rebates
Simon Sigue

Endogenous and Exogenous Determinants of Inter-Category Price Sensitivity- A Spatial Approach
Joy Joseph, Aman Nanda

Innovative Pricing Strategies Under Strategic Consumer Behavior
Amit Pazgal, Yossi Aviv

FD13 – Orca

Questions on Brand Identity, Personality, and Extension

Chair: Robert Kreuzbauer

The Interchangeability of Brand Extensions
Joseph Chang, Bob Wu

Designing Coolness: Brand Building in the Global Fashion Industry
Rajesh Chandy, Om Narasimhan, Paola Cillo, Jaideep Prabhu

Brand Personality: Transference and Preference
Sharon Hodge, Kathryn Olinger

Basic Social Motives of Brand Identity Signaling
Robert Kreuzbauer, Chi-yue Chiu, Vivian Vignoles

FD14 – Finback

Advertising and Market Competition

Chair: Nawel Amrouche

Advertising and Market Structure: A Digital Video Recorder Field Experiment
Carl Mela, Bart Bronnenberg, Jean Pierre Dube

Copycat Advertising and Strategic Theme Release
Chun (Martin) Qiu, Demetrios Vakratsas

Search Advertising
Sridhar Moorthy, Avi Goldfarb

Feedback Stackelberg Equilibrium Strategies When the Private Labels Competes with the National Brand
Nawel Amrouche, Guiomar Martín-Herrán, Georges Zaccour

FD15 – Granville

Strategy and Consumer Behavior

Chair: Wilfred Amaldoss

Unbundling Music: Can Selling Individual Songs Reduce Competitive Intensity Among Music Producers?
Sherif Nasser, Nicholas Economides

Turf Wars: Brand Extension in Markets with Preference Based Segmentation
Yogesh V. Joshi, David Reibstein, John Zhang

Software Piracy in the Presence of Open Source Software
Rajiv Sinha, T.S. Raghu, Fernando Machado

Strategic Implications of Reference Groups: An Experimental Investigation
Wilfred Amaldoss, Sanjay Jain

FD16 – Galiano

Retail Store Environment

Chair: Julien Schmitt

Shelf Layout Effects for Sustainable Products
Erjen van Nierop, Erica van Herpen, Laurens Sloot

Extreme Makeover: Financial and Perceptual Effects of a Remodeled Servicescape Over Time
Bram Foubert, Elisabeth Brüggen, Dwayne Gremler

Investigation of the Impact of Store Layout on Category Sales and Store Profitability
Yu Ma, Minakshi Trivedi, Dinesh Gauri

Associations Between Purchases and In-store Behavior: An Extension of the Market Basket Analysis
Julien Schmitt, Ganael Bascoul

2008 INFORMS Marketing Science Conference

Saturday June 14th, 2008 8:30-10:00AM (SA)

SA01 – Junior Ballroom D

Social Networks and Marketing I

Chair: Paul Messinger

A Viral Branching Model for Predicting the Spread of Electronic Word-of-mouth in Viral Marketing Campaigns
Ralf van der Lans, Gerrit van Bruggen, Jehoshua Eliashberg, Berend Wierenga

The Role of Spatial Proximity in the Adoption of a Digital Product
Christian Barrot, Arvind Rangaswamy, Sönke Albers, Nazrul I. Shaikh

Deriving Economic Value from Social Commerce Networks
Andrew Stephen, Olivier Toubia

Consumer Identification with Avatars: Business Applications and Social Computing in Immersive 3D Virtual Worlds
Paul Messinger, Mike Bone, Eleni Stroulia, Kelly Lyons, Stephen Perelgut, Kristen Smirnov, Annie Niu

SA02 – Junior Ballroom C

Price Rigidity: Latest Theoretical and Empirical Advances in Marketing

Chair: Sourav Ray

Price Adjustments in Technology-intensive Markets: Reversed Asymmetry
Charles Wood, Sourav Ray, Paul Messinger

Price Rigidity as Retail Strategy in Grocery Supermarkets
Sourav Ray

Costly Price Adjustment in a Channel of Distribution
Mark E. Bergen, Sourav Ray

SA03 – Grand Ballroom D

Social and Cause Marketing

Chair: Sihem Taboubi

The Multidimensionality of Fit from a Cause-related Marketing Perspective
David Bednall , Harmen Oppewal , Allison Ringer

Marketing Better Driving Through Communication and Penalties
Paul Burke, Luke Greenacre

An Investigation of Factors Affecting Fair Trade Consumption
Sihem Taboubi, Denis Laroque, Walid Daher

SA04 – Port Alberni

Investigating Consumer Response to Promotions

Chair: Sungchul Choi

The Effect of Monetary Format on the Mental Accounting and Consumption of Windfalls
Tim Silk, Laura Smarandescu, Scott Swain

All Multi-Item Promotion Frames are Not Created Equal
Sonja Spuerkmann, Karen Gedenk, Michael Knaf

Ambiguity and "Scratch and Save (SAS)" Promotions
Sungchul Choi, Moontae Kim, Mike Stanyer

SA05 – Grand Ballroom C

New Product Design and the Design Process

Chair: Praveen Kopalle

Structuring Product Development Pipelines for Better Information Utilization
Tao "Alex" Wu

Developer Learning Dynamics in Open Source Software Projects: A Hidden Markov Modeling Approach
Nara Youn, Yong Tan, Param Singh

Identifying and Using Emergent Consumers in Developing Radical Innovations
Praveen Kopalle, Tom Novak, Donna Hoffman

SA06 – Grand Ballroom B

Structural Equation Modeling

Chair: Horst Treiblmaier

More for Less? A Comparison of Single-Item and Multi-Item Measures
Petra Wilczynski, Marko Sarstedt

Response-Based Clustering in PLS: A Comparison of FIMIX-PLS with A-Priori and Post-Hoc Segmentation
Marko Sarstedt

Formative Measurement in Social Science Research: A Historical Review and Up to Date Issues
Horst Treiblmaier, Peter Bentler, Patrick Mair

SA07 – Grand Ballroom A

Structural Econometric Models of Consumer Choice

Chair: Subramanian Balachander

Dynamics of Consumer Adoption Decisions of Financial Innovation: the ATM Card Case in Italy
Botao Yang

A Simulated Maximum Likelihood Estimator for the Random Coefficient Logit Model Using Aggregate Data
Sungho Park, Sachin Gupta

Dynamic Brand and Quantity Choice with a Hazard Model of Promotion Expectation
Subramanian Balachander, Yan (Lucy) Liu

SA08 – Port Hardy

Consumer Perception: Packaging, Stimuli Order, and Haptics

Chair: Monica Hodis

Subject Responses to Stimuli Order: A Comparison of Four Orders Using Five Criteria
Bryan Lilly

Context Effects for Package Size Comparisons
Larry Garber, Unal Boya, Eva Hyatt

Can Consumers Feel Vicariously? A Comparison Between Haptic Information and Online Video Reviews
Monica Hodis, Siva Balasubramanian, Rajendran Sriramachandra-Murthy

2008 INFORMS Marketing Science Conference

Saturday June 14th, 2008 8:30-10:00AM (SA)

SA09 – Junior Ballroom B

Customer Lifetime Value

Chair: Jaime Romero

Payment Card Rewards Programs and Consumer Payment Choice
Andrew Ching, Fumiko Hayashi

"I'm Here, but Maybe not for Long": Using Complaints to Predict and Value Customers
George Knox, Rutger D. van Oest

A Generalization of Customer Lifetime Value Models Through Customer Dynamics
Jaime Romero, Berend Wierenga, Ralf van der Lans

SA10 – Junior Ballroom A

Channel Management

Chair: Kersi D. Antia

Channel Coordination and Manufacturer Competition
Jia Li, Tat Chan, Michael Lewis

Channel Coordination Through Royalty Payments in a (Non-) Price Double Moral Hazard Environment
Marcus Kunter

Competitive Channel Relationship Management
Alberto Sa Vinhas, Richard Gibbs, Erin Anderson

Contracts, Governance, and Intermediary Cooperation
Kersi D. Antia, Gary Frazier, Vishal Kashyap

SA11 – Port McNeill

Blog-Research

Chair: Oded Netzer

The Effect of Online Consumer Reviews on New Product Sales: A Longitudinal Analysis of Amazon.com
Xiaoning Guo, Geng Cui

Home Users Blogs to Test Products: A Field Experimentation
Christine Balagué, Devalck Kristine

Mining for Quality On the Web
Joseph Johnson, Gerard J. Tellis

Mine Your Own Business: Market Structure Surveillance Through Text Mining
Oded Netzer, Ronen Feldman, Jacob Goldenberg

SA12 – Parksville

Understanding and Improving Customer Satisfaction

Chair: Kristof Coussement

Why Satisfied Consumers Do Not Want to Buy Again? A Consumer Interaction Explanation
Vane-ing Tian, Felix Tang, Lisa C. Wan

When Consumer Performance is a Key to Satisfaction
Lisa C. Wan, Felix Tang, Vane Ing Tian

Study of Key Factors for Customer Satisfaction in Multi-Channel Banking in Taiwan
Omar Caballero, Hui-I Yao

Improving Complaint Management by Automatic Email Classification Using Linguistic Style Features
Kristof Coussement, Dirk Van den Poel

SA13 – Orca

Brand Equity

Chair: Thomas Gruca

Managing Intellectual Property Assets to Build Firm Brand Equity
Saurabh Mishra, David Orozco, James G. Conley

Is Revenue Premium a Good Measure of Brand Equity? A Game-theoretic Investigation
Raj Sethuraman

Brand Equity, Cash Flow Certainty and Systematic Equity Risk
Thomas Gruca, Lopo Rego, Neil Morgan

SA14 – Finback

Measuring Advertising Effectiveness

Chair: Marcel Weverbergh

Incorporating Dynamic Promotional Effects on Price Sensitivity: A Kalman Filter Approach
Karthik Sridhar, Minakshi Trivedi

Modeling Short-run and Long-run Competitive Effects Within and Across Product Categories
Richard Paap, Csilla Horvath

Modeling of Advertising Effectiveness Using Hierarchal Two-stage Model
Meltem Kiygi Calli, Marcel Weverbergh, Philip Hans Franses

Stability of Advertising Effectiveness Estimates Under Time Aggregation
Marcel Weverbergh, Meltem Kiygi Calli

2008 INFORMS Marketing Science Conference

Saturday June 14th, 2008 10:30-12:00PM (SB)

SB01 – Junior Ballroom D

Social Networks and Marketing II

Chair: Jacob Goldenberg

A Bayesian Framework for Modeling Multiple Relationships Among the Members of a Social Network
Asim Ansari, Oded Koenigsberg, Florian Stahl

Sampling Large-Scale Social Networks: The Good, The Bad, and the Ugly
Peter Ebbes, Zan Huang, Arvind Rangaswamy, Hari Prasad Thadakamall

The Diffusion of Newly Experienced Product Information in a Social Network Random Walk or Shortest Cut?
Shenyu Li, Peter Popkowski-Leszczyc

Zooming In: Self-emergence of Movements in New Product Growth
Daniel Shapira, Jacob Goldenberg, Oded Lowengart

SB02 – Junior Ballroom C

Words Matter: Investigating the Antecedents and Impacts of Word-of-Mouth Communication

Chair: Cindy M.Y. Chung

The Effects of Social Relationship and Regulatory Focus on Word-of-mouth
Tsai Qianyi

The Impact of Metaperception on Incentivized Referrals
Patricia Chew, Jochen Wirtz, Siok Kuan Tambyah

The Impact of Word-of-mouth Communication on Attribute Evaluation
Boon C. Lim, Cindy M.Y. Chung

The Impact of Positive Word-of-mouth Communication on Post-purchase Attitude
Cindy M.Y. Chung, Boon C. Lim

SB03 – Grand Ballroom D

Marketing and Public Policy: Research in the Public Interest

Chair: Peter Darke

"Organic", "Fair Trade" - Are Consumers Willing to Pay for Food Claims?
Jenny van Doorn, Peter C. Verhoef

Reverse Socialization and the Prevention of Childhood Obesity
Kafia Ayadi, Brian Young, Maya Naja

Effectiveness of Using Ultra Thin Model in Printed Advertisements: The Role of Consumer Morality
Leo Paas, George Zinkhan, Kelly Andersen

Deceptive Product Claims and Market Competition
Peter Darke, Tirtha Dhar, Charles Weinberg, Xiaohua Zeng

SB04 – Port Alberni

Models of Sales Promotion

Chair: Sergio Meza

Capacity Constraints and Imperfect Information: Demand- and Supply-Sided Remedies
Bing Jing, Yuxin Chen

Developing Deal Calendars in the Presence of Forward-looking Consumers
Christine Ebling, Daniel Klapper

An Economic Approach to the Moderating Effects of Sales Promotion on Category Structure
Elina Petrova, Alan Montgomery

Revisiting Models of Sale Promotion in NEIO
Sergio Meza

SB05 – Grand Ballroom C

Commercializing Innovations and Launching New Products

Chair: Sharmila Chatterjee

Alternate Routes to Commercialization of Innovations: Spinoffs Versus Management Buyouts
Gaia Rubera, Gerard J. Tellis

Decomposing the Incremental Share of New Product Introductions
Vijay Ganesh Hariharan, Debu Talukdar, Ram Bezawada

Balancing the Goods-Services Mix: The Role of Complementary Capabilities in Technology Assimilation
Sharmila Chatterjee, Anthony deLeon

SB06 – Grand Ballroom B

Bayesian Methodology

Chair: Sha Yang

Efficient Designs for Hyperparameter Estimation: Studying the Level-effect in Conjoint Analysis
Qing Liu, Angela Dean, David Bakken, Greg Allenby

Bayesian Modeling for Spatio-Temporal Multimarket Data
Zaozao Zhang, Bart Bronnenberg, Asim Ansari

On the Information of the Definition of Feasible Set in Pricing Decisions
Marcel Goic, Alan Montgomery

Modeling the Under Reporting Bias in Panel Survey Data
Sha Yang, Yi Zhao, Ravi Dhar

SB07 – Grand Ballroom A

Conjoint Analysis Methods

Chair: Srikant Vadali

Testing Preference Rankings
Kar Yin Lam, Alex J. Koning, Philip Hans Franses

On the Relationship Between Cross-effects and Standard ANOVA Models
James Wiley, Damaraju Raghavarao

Incentive Aligning Conjoint Analysis Using Inferred Rank Order
Min Ding, Joel Huber

Adaptive Bayesian Question Designs for Partial Profile Conjoint Analysis
Srikant Vadali, Arvind Rangaswamy, John Liechty

SB08 – Port Hardy

Assessing Risk and Ambiguity Aversion

Chair: Bruce McWIlliams

Decision Marking Under Risk in Gambling
Qiang (Steven) Lu, Elizabeth Cowley, Colin Farrell

Low-cost or Traditional Airline: Rational Arguments vs. Beliefs, According to Various Traveler Types
Jean-Louis Nicolas, Mohamed Merdji

The Impact of a Budget and Multicategory Choice on Extremeness Effects
Nico Neumann, John Roberts, Pamela Morrison, Stefan Roth

Money-back Guarantees and the Value of Decision Time: An Empirical Analysis
Bruce McWIlliams, Amir Heiman, David R. Just, David Zilberman

2008 INFORMS Marketing Science Conference

Saturday June 14th, 2008 10:30-12:00PM (SB)

SB09 – Junior Ballroom B

Product Management

Chair: Vishal Narayan

Optimal Product Assortment under Commercial Returns
Aydin Alptekinoglu, Elif Akcali, Alex Grasas

Timing of Sales of Complementary Products
Maxim Sinitsyn

Pull Promotions and Vertical Product Line Design
Chi-Cheng Wu

Modeling Dynamics in Variety-Seeking: The Effect of Category Length
Vishal Narayan, Sha Yang, Russ Winer

SB10 – Junior Ballroom A

Channels and Customer Choice

Chair: Ranjan Banerjee

Beneficial and Detrimental Effects of Parallel Importation in Distribution Channels
Ying Xiao, Udatta Palekar, Yunchuan Liu

Using Hidden Markov Models to Discover Customer Channel Choice Behavior
Chun-Wei Chang, Nara Youn, Gary Erickson

The Consumer Speaks-Revisited: On the Weight of Retail and Manufacturer Brands in Purchase Decisions
Willem Smit, Martin Koschat

The Impact of Multiple Channels on Customer Acquisition and Tenure
Ranjan Banerjee, Shantanu Dutta, Kersi D. Antia

SB11 – Port McNeill

Customer Relationships in a Multichannel Environment

Chair: Tarun Kushwaha

Forced Channel Migration: Consequences and Management Strategies
Umut Konus, Debra Trampe, Peter C. Verhoef

Channel Spillovers From Offline Entry
Manish Tripathi

Effective Multi-channel Marketing Strategy from a CRM Perspective
Jungwhan Choi

Cross-Channel and Advertising Effects in the Hierarchy of Consumer Decision Making
Tarun Kushwaha, Venkatesh Shankar

SB12 – Parksville

Issues in Customer Satisfaction Research

Chair: Dmitri Kuksov

The Impact of Customer Satisfaction and Uncertainty on Firm's Financial Performance
Chongyan Gao, Jianmin Jia, Liaogang Hao

Estimating Heterogeneous Recommendation and Repurchase Thresholds Using Hierarchical Bayesian Method
Ying Jin, Meng Su

The Effect of Category and Customer Characteristics on Satisfaction-Loyalty Relationship
Songting Dong, Min Ding, Rajdeep Grewal, Ping Zhao

Pre- and Post-Purchase Management of Customer Satisfaction
Dmitri Kuksov, Ying Xie

SB13 – Orca

Brand Equity and Corporate Citizenship

Chair: Yuxin Chen

Strengthening Customer Relationships Through Corporate Citizenship Initiatives
Shuili Du, Sankar Sen, C.B. Bhattacharya

Investigating the Role of Corporate Societal Marketing Programmes in Building Corporate Brand Equity
Das V. Mukunda, Saji K.B.

The Impact of the Content of Public Relations Activities on Corporate Reputation
Seema Pai, Sivaramakrishna Siddarth

The Strategic Implications of Cause-related Marketing
Yuxin Chen

SB14 – Finback

Advertising Pricing

Chair: Wensui Liu

Optimal Performance-based Pricing Models in Online Advertising
Jiwoong Shin, Jeffrey Hu

How Much Should You Pay for the Celebrities in Advertisements? An Application of Conjoint Analysis
Chih-Ping Wang, Lichung Jen, Han-Kuang Tien

Allocation Mechanisms in Search Advertising: A Comparison of Two Ranking Systems
Woochoel Shin, Debu Purohit, Preyas Desai

Adjustment of Selection Bias in Marketing Campaign
Jimmy Cela , Wensui Liu

2008 INFORMS Marketing Science Conference

Saturday June 14th, 2008 1:30-3:00PM (SC)

SC01 – Junior Ballroom D

Social Networks and Marketing III

Chair: Puneet Manchanda

Impact of Information Diffusion on Bidding Behavior in Secret Reserve Price Auctions
Oliver Hinz, Martin Spann

Application of Social Network Analysis in Pharmaceutical Marketing
Raghu Iyengar, Christophe Van den Bulte, Thomas Valente

How the Web 2.0 is Changing Word-Of-Mouth and Opinion Leadership as we Know It
Mark Elsner, Oliver Heil

Network Marketing: The Role of Structure and Distance on Performance
Puneet Manchanda

SC02 – Junior Ballroom C

Marketing Engineering - Integrating Data Mining Tools and Decision Support Systems

Chair: Baohong Sun

Learning and Acting Upon Customer Information: An Empirical Application to Service Allocations with Offshore Centers
Baohong Sun, Shibo Li

When is the Juice Worth the Squeeze? - An Empirical Study of Optimal Structuring of Win-back Strategy in the Presence of Consumer Dynamics
Yacheng Sun

Introducing the Right Financial Product to the Right Customer at the Right Time - An Empirical Analysis of Proactive Cross-selling Campaigns
Shibo Li, Baohong Sun, Alan Montgomery

SC03 – Grand Ballroom D

Marketing Science Beyond Business

Chair: John Roberts

A Multi Criteria Decision Making Methodology for Strategy Selection in Social Marketing Campaigns.
Peter Oppenheim

Competing for the Future of Business Schools: Does Academic Research Help or Hurt MBA Programs?
Debanjan Mitra, Peter Golder

Food Safety, PR/HACCP Regulation and Competitive Marketing Strategy
Dung Nguyen

How Do CSR Evaluations Depend on Whom You Ask and is That Changing?
John Roberts, Pamela Morrison, Charlie Nelson

SC04 – Port Alberni

Service Organization Management

Chair: Shijin Yoo

An Empirical Study of Servant Leadership and Service Performance
Yu-Li Lin, Hsiu-Wen Liu

Paradox of Service Effectiveness: Leveraging Frontline Mechanisms for Managing Quality and Cost
Detelina Marinova, Jagdip Singh, Jun Ye

Assessing the Quality Gap Between the Firm vs. Customer Perspectives in the Service-Profit Chain
Shijin Yoo, Jin K. Han

SC05 – Grand Ballroom C

New Product Development-Product Design

Chair: P.K. Kannan

Managing New Product Preannouncements: Who, What & Where?
Shantanu Dutta, Seema Pai

The Lives of Durable Goods
Oded Koenigsberg, Ricardo Montoya, Rajeev Kohli

Designing Products for Retail Channel Acceptance Considering Slotting Allowances
P.K. Kannan, Nathan Williams, Shapour Azarm

SC06 – Grand Ballroom B

Statistical Methodology

Chair: Nobuhiko Terui

How to Profile Customers Using Collaborative Database Profiling: An Application to Age Estimation
Arnaud De Bruyn, Nathalie Tramonte

Using Constant Sum Questions in Forecasting Sales of New and Frequently Purchased Products
Didier Soopramanien, Greg Rogers

A Simulation-Based Performance Comparison of Stochastic and Naïve Models of Consumer Behavior
Michael Jungbluth, Joachim Bueschken

Count Data Sales Forecasting
Nobuhiko Terui, Masataka Ban, Toshihiko Maki

SC07 – Grand Ballroom A

Market Segmentation

Chair: P.V. (Sundar) Balakrishnan

The Proof of the Pudding is in the Eating. Data Fusion: An Application in Marketing
Pascal van Hattum

Usage Segmentation of Air Cargo Market of High-tech Industry
Ming-Chih Tsai, Yi-Ting Tsai

A Comparative Investigation of Genetic Algorithms and Simulated Annealing Approaches for Dual Objective Segmentation
P.V. (Sundar) Balakrishnan, Subodha Kumar

SC08 – Port Hardy

Behavioral Choice Models

Chair: Neil Bendle

Towards A Brain-to-Society Systems Choice Model for Motivated Behavior
Laurette Dube, Ross Hammond, Asim Ansari, Ulf Bockenholt

Towards Biologically Plausible Models of Motivated Behaviour: Sequential Sampling Process Models
Antoine Bechara, Laurette Dube, Scott Huettel, Asim Ansari, Ulf Bockenholt, Robert Fisher

Reference Dependence When Tastes Differ
Neil Bendle, Mark E. Bergen

2008 INFORMS Marketing Science Conference

Saturday June 14th, 2008 1:30-3:00PM (SC)

SC09 – Junior Ballroom B

Product Line Management

Chair: J. Miguel Villas-Boas

Managing Brand Equity with Product Line Extensions and Contractions
Vincent Nijs, Koen Pauwels, Shuba Srinivasan

Retailing as a Two Sided Platform
Benny Mantin, Harish Krishnan, Tirtha Dhar

Product Line Dynamics of Performance Products
Guilherme (Gui) Liberali, Thomas Gruca

Information Overload with Endogenous Pricing
J. Miguel Villas-Boas

SC10 – Junior Ballroom A

Channel Structure

Chair: Christina Schmidt-Stoelting

The Effect of Consumer Heterogeneity and Channel Structure on Firms' Product Decisions
Hongyan Shi, Yunchuan Liu

Vertical Differentiation Using Outlet Stores
Huseyin Karaca, Karsten Hansen, Eric Anderson

Sequential Distribution Analysis for Media Products
Christina Schmidt-Stoelting, Michel Clement, Sönke Albers

SC11 – Port McNeill

Issues in Business to Business Marketing

Chair: Mrinal Ghosh

Tariff Choice Biases in a Business-to-business-context
Susanne Stingel, Klaus Backhaus

Drivers of Profitability in Industrial Services
Werner Reinartz, Wolfgang Ulaga

Pricing Formats for Branded Components in B2B Markets
Mrinal Ghosh, Kellilynn Frias, Desmond (Ho-Fu) Lo

SC12 – Parksville

Customer and Employee Relationships in Services

Chair: Patrali Chatterjee

Model of Customer Satisfaction in Retail Banking Industry
Vimi Jham, Kaleem Mohd. Khan

Procedural Justice in the Services Context: Construction and Validation of a Scale
Cathy Y. Chen , Peter De Maeyer

Towards Standardizing the Quantification of Working Relationship Quality
R. Mohan Pisharodi, John Henke, Jr., Ravi Parameswaran

Comparison Shopping, Satisfaction and Recommending Behavior
Patrali Chatterjee, Ying Xie

SC13 – Orca

Brand Management

Chair: Vijay Viswanathan

Brands: The Opiate of the Non-religious Masses?
Tulin Erdem, Gavan Fitzsimons, Ron Shachar, Keisha Wells

Brand Evaluation for High-Tech Firms -- With an Application to the Mobile Phone Industry
Bo Huang, Francine Lafontaine

The Impact of Brand Equity on Financial Analysts' Forecast Accuracy
Thorsten Wiesel, Roman Kraeussl

The Portfolio of Product-market Outcomes As An Explanation for Firm Value and Volatility
Vijay Viswanathan, Douglas Bowman

SC14 – Finback

Consumer Response to Advertising Communication

Chair: Allison Tencza

A Person-situation Perspective to Advertising Creativity--Information Processing and Priming Effects
Jiemiao Chen

The Role of Social Factors and Participation in User Responses to Advertising in Online Communities
Li Huang, Fue Zeng, Wenyu Dou

Emotional vs. Rational Theme-based Incongruence
Allison Tencza, Larry Garber

2008 INFORMS Marketing Science Conference

Saturday June 14th, 2008 3:30-5:00PM (SD)

SD01 – Junior Ballroom D

Social Networks and Marketing IV

Chair: Jianan Wu

The Emergence of Opinion Leaders in Social Networks
Vincent Mak

How Does Word-of-mouth Affect Pricing? Agent Based Simulation of Different Markets
Wander Jager, Marco Janssen

Managing Referral Reward Programs Based on Social Network Models
Jan Becker, Christian Barrot, Sönke Albers, Arvind Rangaswamy

Word-of-mouth and Price Dispersion in Online Markets
Jianan Wu, Edgardo Ayala, Ayala Gaytán

SD02 – Junior Ballroom C

Gift Giving and Fashion

Chair: Sameer Mathur

Luxe Populi: When Luxury Brands Lose Their Allure
Kitty. Y. Wang, Mengze Shi

Competitive and Welfare Implications of Gift Cards
John Zhang, Tony Haitao Cui

Optimal Dynamic Pricing and Return Policies in Holiday Seasons
Shan-Yu Chou, Chyi-Mei Chen, Pei-Jone Hsueh

How Do Purchase Behavior and Seller Strategy Differ During the Holidays?
Sameer Mathur, Jeffrey Inman

SD04 – Port Alberni

Service Evaluation

Chair: Adam Finn

Measuring Preferences for Services – An Empirical Study in the Airline Industry
Christian Niederauer, Markus Voeth

The Effects of Service Innovation on Customer Satisfaction and Firm Value
Thomas Dotzel, Venkatesh Shankar, Leonard L. Berry

Practice, Perceived Quality & Consumer Choice: The Impact of Service Failures During Online Shopping
Jianping Liang, Kyle B. Murray, Kersi D. Antia

Identifying Non-Linear Effects of e-Service Quality Dimensions on Customer Satisfaction
Adam Finn

SD05 – Grand Ballroom C

The Role of Network Externalities in Diffusion

Chair: Ozge Dilaver Kalkan

Replacing Household Durables - Does Consumer Innovativeness Matter?
Maria Kaya, Sönke Albers, Dennis Proppe, Paul Steffens

Digital Divide From the Perspective of Bass Model
Hua-Ning Chen, Chun-Yao Huang

A Consumer-based Social Interaction Model for Diffusion of Innovations
Ozge Dilaver Kalkan

SD06 – Grand Ballroom B

Methodology: Data Management and Collection

Chair: Yi-Lin Tsai

Enhancing Marketing Research Through Management Information System Concepts
Ravi Parameswaran

A Spatial Framework to Control for Biases in Cross-Cultural Customer Satisfaction Measures
Jing Gao, P.K. Kannan

Distinguishing Between Learning and State Dependence - A Simulation Based Study
Yi-Lin Tsai

SD07 – Grand Ballroom A

Segmentation Research

Chair: Heungsun Hwang

A Conjoint Model For Finding Segments and Heterogeneity Based on Individual Preference
Hsiu-Wen Liu, Yu-Li Lin

A DEA-based Panel Model Illustrated by an Application to Advertising Efficiency
Robert Wilken

Influence of Consumers' Motivation, Opportunity and Ability on the Validity of Conjoint Analysis
Uta Herbst, Joachim Pelz, Markus Voeth

Visual GSCA: A Graphical User Interface Software Program for Generalized Structured Component Analysis
Heungsun Hwang, Youngchan Kim

SD08 – Port Hardy

Models of Consumer Learning

Chair: Paul Messinger

Consumer Learning, Word of Mouth and Quality Competition
Chang Hee Park, Young-Hoon Park, Vishal Gaur

ShopBots and Retailers' Strategies for Price Concealment
Tanja Frischmann, Bernd Skiera, Oliver Hinz

How Used Markets Facilitate Consumer Learning
Paul Messinger, Chun (Martin) Qiu

2008 INFORMS Marketing Science Conference

Saturday June 14th, 2008 3:30-5:00PM (SD)

SD09 – Junior Ballroom B

Factors Influencing Product Line Innovativeness

Chair: Peter C. Verhoef

From Invention to Innovation: Technological Drivers of Product Portfolio Strategy
Wooseong Kang, Mitzi Montoya

The Effects of Challenging Conditions on Product Innovativeness
Stav Rosenzweig, David Mazursky

Relationship Quality and Retailer's Dependence as Moderators of Profit Drivers of Retailer's New Pro
Peter C. Verhoef, Laurens M. Sloot, Yvonne van Everdingen

SD10 – Junior Ballroom A

Altering Channel Relationships

Chair: Eunkyu Lee

Conversion Franchising: Examining Determinants of the Likelihood of Conversion
Cori Hodge, Harmen Oppewal, Civilai Terawatanavong

Inter-manufacturer Competition: Viability of a Store-in Store-format
Xubing Zhang, Charles Ingene

Vertical Extension Through the Factory Outlet Channel: Synergy or Conflict
Gonca Soysal, Lakshman Krishnamurthi

Cross-brand Pass-through of Promotional Allowances: An Equilibrium Analysis
Eunkyu Lee, Sang Yong Kim

SD11 – Port McNeill

Marketing Metrics

Chair: Mario Rese

Risk of Customer Relationships: Concept and Measurement
Jochen Becker, Tomas Bayón, Florian v. Wangenheim

Identifying Growth Potentials with Internal Benchmarking Across Product Categories and Markets
Rex Du, Wagner Kamakura

Measuring the Financial Outcome of Marketing: Matching Performance Measures with Marketing Actions
Mario Rese, Valerie Herter

SD12 – Parksville

B2B Customer Relationships

Chair: Douglas Bowman

The Affect of Partner Relationship Management Systems on Supplier-partner Relationships
Chris Storey

Network Characteristics, Decision Uncertainty and Exchange Norms; Evidences from China
Ting-Jui Chou, Hongjuan Yin, ChunMing Yang

Relational Purchasing in Industrial Markets - The Role of Prior Experience and Choice Context
Dorith Mayer, Christoph Ihl

The Evolution of Vendor Performance on Continuity in Business Services Relationships
Douglas Bowman

How to Navigate the Contributed Sessions

There are four primary resources to help you understand and navigate the Contributed Sessions:

- This contributed session listing, which provides the most detailed information. The listing is presented chronologically by day/time, showing each session and the papers/abstracts/authors within each session.
- The Author, Session Chair and Session indices provide cross-reference assistance (pages 119-126).
- The map and floor plans included in the Front Matter show you where technical session tracks are located.
- The "Master Track Schedule" is on the back cover. This is an overview of the tracks (general topic areas) and when/where they are scheduled.

Quickest Way to Find Your Own Session

Use the Author Index (pages 120-125) — the session code for your presentation(s) will be shown. Then refer to the full session listing for the room location of your session(s).

The Session Codes

SB01

Track number. Coordinates with the room locations shown in the Master Track Schedule. Room locations are also indicated in the listing for each session.

Time Block. Matches the time blocks shown in the Master Track Schedule.

The day of the week

Time Blocks

Thursday	
Session A	1:00-2:30pm
Session B	3:00-4:30pm
Session C	4:45-6:15pm
Friday	
Session A	8:30-10:00am
Session B	10:30am-12:00pm
Session C	1:30-3:00pm
Session D	3:30-5:00pm
Saturday	
Session A	8:30-10:00am
Session B	10:30am-12:00pm
Session C	1:30-3:00pm
Session D	3:30-5:00pm

Room Locations

All session rooms are located in the Sheraton Wall Centre.

Thursday, 1:00pm - 2:30pm

■ TA01

Junior D

Empirical Analysis of Online Auctions

Chair: Robert Zeithammer, UCLA, Anderson School of Management, 110 Westwood Plaza, Los Angeles, CA, 90095, United States of America, rzeitham@ucla.edu

1 - When Zero Search Cost is Too High: What Does it Take to Make Consumers Search?

Peter T. L. Popkowski Leszczyc, Associate Professor, University of Alberta, Marketing Department, 4-20F School of Business, Edmonton, AB, T6G 2R6, Canada, ppopkows@ualberta.ca, Ernan Haruvy

We examine individual choice between pairs of simultaneous auctions that are either ex-ante identical or that differ in one of the following respects: (1) direct incentives to search, (2) shipping costs, (3) minimum starting bid, (4) duration and (5) secret reserve. We also included an incentive to search for some of the pairs. We investigate the extent to which individuals bidding in these auctions choose optimally over auctions, the extent to which individuals switch between auctions, and the factors that influence these outcomes. We use a mixture model approach to allow for different types of individual preferences. We find that while most individuals do not optimize over auctions and most do not switch between auctions, they can be made to search with the appropriate incentives, suggesting that the lack of search is not inherent but is rather driven by cost of search.

2 - Click, Click, Click: Measuring the ROI of Keywords Advertising

Tat Chan, Olin Business School, Washington University in St. Louis, Campus Box 1133, One Brookings Drive, St. Louis, MO, 63130, United States of America, chan@wustl.edu, Chunhua Wu

Online advertising spending is soaring. According to eMarketer's research, US online advertising will more than double as a percentage share of total media from 6% in 2006 to slightly more than 12% in 2010. One of the advantages for advertisers using online advertising is that a rich set of information of potential customers can be captured after they click in through advertisements. This capability allows the advertiser to measure the sales impact of its online advertising effort. In this study, we employ dataset from a B-to-B company which is specialized in supplying biomedical and chemical products. This company has been actively bidding for Google AdWords, the search engines' flagship advertising product, to promote its website. Our dataset compiles the keywords advertising, website traffic and sales data for the company from 2004 to 2007. In particular, the keyword advertising data contain detailed information on Google AdWords advertising, such as impressions, click through rate, average cost per click and ad positions. We combine the three datasets to build an empirical model to examine the sales effect of keyword advertising. We focus on the following research questions: 1. How do the positioning and frequency of the keywords advertising influence the traffic and hence contemporary and future sales for the company? 2. How does the impact of keywords advertising differ on new customers versus return customers? 3. Finally, is it worthwhile for the company to invest on keywords advertising in general? Are there significant differences in the returns of biddings for different types of keywords?

3 - Jump Bidding in Online Auctions: A Double-edged Sword

Yongfu He, Assistant Professor, Monash University, Caulfield East, Victoria, 3145, Australia, yhe@ualberta.ca, Peter T. L. Popkowski Leszczyc

Jump bidding, that is, when a bidder bids more than what is required by the seller at a certain price level, is an often-observed phenomenon in both traditional and online auctions. In this paper, we develop a conceptual model on the effects of jump bidding in online auctions and propose that jump bidding is a double-edged sword in the auction outcome. On the one hand, jump bidding may signal strength or a high bidder valuation, which can deter other bidders, and hence discourage competition. This may lead to lower ending prices. On the other hand, jump bidding may also have a positive effect on other bidders' willingness to pay through value interdependence, as bidders obtain information from, and are influenced by, the bid amount revealed by the jump bidder. We

empirically study both the negative and positive effects of jump bidding on ending prices. We also study several moderators of the relationship between auction outcome and jump bidding, including the auction type (whether an auction is a charity auction or not) and the degree of bidders' value uncertainty. Furthermore, we propose that the effects of jump bidding are time-contingent and will vary during different stages in an auction. The results of four different studies: a controlled field experiment conducted on a local online auction market and three laboratory experiments support our conceptual model. Results of the laboratory experiments also indicate that jump bidding conveys a jump bidder's private information and positively influences other bidders' valuations.

4 - Tests of the Sealed-bid Abstraction in Online Auctions

Robert Zeithammer, UCLA, Anderson School of Management, 110 Westwood Plaza, Los Angeles, CA, 90095, United States of America, rzeitham@ucla.edu

This paper presents five empirical tests of the popular modeling abstraction that bidders in ascending online auctions bid "as if" they were in a sealed bid auction. The tests rely on observations of the magnitudes and timings of top two proxy bids, with the different tests stemming from different regularity assumptions about the underlying joint distribution of signals and timings. We apply the tests to data from three eBay markets - MP3 players, DVDs and used cars - and we reject the sealed-bid abstraction in all three datasets. This consistent rejection casts doubt on several existing theories of online-auction behavior. Moreover, we reject the sealed-bid abstraction even in carefully selected subsets of the data that one might consider more likely to conform to sealed bidding. Given these findings, demand-estimation using eBay data is more difficult than previously thought. In particular, our results suggest that the empirical strategies based on multiple order-statistics of the bidding distribution will not work.

■ TA02

Junior C

In Honor of Professor Frank M. Bass: Expanding Frontiers of Diffusion Research

Chair: Gerard J. Tellis, Neely Endowed Chair in American Enterprise, Director of the Center for Global Innovation, and Professor of Marketing, Marshall School of Business, University of Southern California, Los Angeles, CA, 90089-1421, United States of America, tellis@usc.edu

Co-Chair: Ashish Sood, , Assistant Professor of Marketing, Goizueta School of Business, 1300 Clifton Rd NE, Emory University, Atlanta, GA, 30322, ashish_sood@bus.emory.edu

1 - Independence and Imitation in New Product Diffusion: Competing Risks or Compensatory Influences?

Christophe Van den Bulte, Associate Professor of Marketing, The Wharton School, University of Pennsylvania, 3730 Walnut St., Philadelphia, PA, 19104, United States of America, vdbulte@wharton.upenn.edu, Yogesh V. Joshi

We resolve a contradiction on the proper decomposition of new product adoptions into independent and imitative. We first trace the conflicting conclusions back to differences in unarticulated theoretical premises underlying the mixed-influence model of new product diffusion. In the first interpretation of the model, independent and imitative influences operate as competing risks, whereas in the second they operate in a compensatory fashion. This distinction provides the basis to (i) confirm the mathematical validity of alternative ex post decompositions of adoptions and to (ii) assess the empirical and theoretical appeal of each. Clarifying the validity and behavioral assumptions of the alternative decompositions enables one to determine which decomposition is useful for one's specific endeavor. Theoretically and behaviorally, the competing risk premise is appropriate only for the spread of awareness or the diffusion of very low risk products; in all other cases, the compensatory influence premise is more defensible. From a managerial point of view, in contrast, the decomposition of adoptions matters less than the apportioning of influence, and the competing risk and compensatory influence premises lead to the same conclusion about the latter.

2 - The Value of Opinion Leaders in the Diffusion of Innovations

Barak Libai, Faculty of Management, Tel Aviv University and MIT, Israel, libai@MIT.EDU, Eitan Muller

Opinion leaders have been traditionally considered to play an important role in the diffusion of innovations, and indeed firms are reported to increasingly invest in identifying opinion leaders and aiming to influence them. Yet, recently the role of opinion leaders in the diffusion of innovations have been challenged with claims that they might not contribute much to the growth process (Watts 2007). The economic role of opinion leaders, however, had been missing from the discussion. In this study we explore the "NPV of an opinion leader". Using an agent based model we examine if indeed opinion leaders of new products are worth much to firms, and which aspect of opinion leadership- the number of contacts, the effect of each contact or the time of adoption- affects the economic value the most.

3 - A Semiparametric Approach to New Product Growth: ICT Diffusion in New and Old Europe

Aurélie Lemmens, Assistant Professor, School of Economics, Erasmus University Rotterdam, P.O. Box 1738, Rotterdam, ZH, Netherlands, lemmens@few.eur.nl, Stefan Stremersch, Christophe Croux

Diffusion models have been used on a regular basis in marketing to capture the life-cycle dynamics of a new product. They have served different purposes, such as informing pre-launch, launch and post-launch strategic decisions. Most of the existing approaches are parametric and rely on a set of assumptions. Nonetheless, there is growing evidence that these assumptions may turn to be problematic in several instances and that the findings they offer are inherently subject to those assumptions. When one desires to remain agnostic to the underlying mechanisms of diffusion, a semiparametric approach may prove fruitful: (i) the functional form (through which the criterion variable is explained by predictors) does not need to be specified; (ii) the diffusion process is estimated as a single object in the spirit of functional data analysis; and (iii) it only requires a limited number of observed data points in the diffusion process. We demonstrate the benefits of this approach when we model ICT diffusion in Old (West) and New (East) Europe. The existence of a technological divide between the Old and New Member States of the European Union has been the subject of intense debate among public policy makers. We show that a digital divide between Old and New Europe does indeed exist, but that it is temporary and gradually fading.

4 - Functional Regression: A New Model for Forecasting Market Penetration of New Products

Ashish Sood, Assistant Professor of Marketing, Goizueta School of Business, 1300 Clifton Rd NE, Emory University, Atlanta, GA, 30322, ashish_sood@bus.emory.edu, Gerard J. Tellis, Gareth James

The Bass (1969) model has been the standard for analyzing and predicting the market penetration of new products. Recently a new class of non-parametric techniques, known as Functional Data Analysis (FDA), has shown impressive results within the statistics community. The authors demonstrate the insights to be gained and predictive performance of Functional Data Analysis on the market penetration of 760 new categories over numerous products and countries. The authors propose a new model called Functional Regression and compare its performance to the Classic Bass, and several other models for predicting eight aspects of market penetration. Results a) validate the logic of FDA in integrating information across categories b) show that Functional Regression is distinctly superior to every other model and c) characteristics of products are far more important than those of country for predicting penetration of an evolving new product.

■ TA03

Grand D

Loyalty Programs

Chair: Tammo H.A. Bijmolt, Professor of Marketing Research, University of Groningen, P.O. Box 800, Groningen, GR, NL-9700 AV, Netherlands, t.h.a.bijmolt@rug.nl

Co-Chair: Els Breugelmans, Assistant Professor of Marketing, Maastricht University, Tongersestraat 53, Maastricht, LI, Netherlands, e.breugelmans@mw.unimaas.nl

1 - Do Loyalty Program Partnerships Matter? Examining the Reinforcing Effects of Cross-buying in Loyalty Programs

Katherine N. Lemon, Associate Professor, Carroll School of Management, Boston College. 140 Commonwealth Avenue, Chestnut Hill, MA, 02467, kay.lemon@bc.edu,
Florian v. Wangenheim

In this research, we develop a dynamic model of cross-buying in loyalty programs. We test the model using data from a European airline. We identify a reinforcing mechanism that operates when loyalty programs are operating effectively. The results suggest that customer usage of (and satisfaction with) the core service influences customer cross-buying from loyalty program partners. The cross-buying behavior then reinforces the customer's relationship with the core service, as cross-buying positively influences future purchases of the core service. Further, we find that these reinforcing effects are influenced by the type of cross-buying service being considered. This dynamic reinforcement mechanism has not been shown in prior research. Our findings have implications for our understanding and management of loyalty programs, brand partnerships and, more broadly, the dynamics of customer purchase behavior.

2 - Loyalty Program Rivalry and Its Impact on Firm and Consumer Outcomes

Yuping Liu, Assistant Professor of Marketing, Old Dominion University, Norfolk, VA, 23529, YXXLiu@odu.edu, Rong Yang

Loyalty programs have become an important component of firms' relationship management strategies. There are now some industries where numerous rival loyalty programs are offered, inducing intense competition among these programs. Existing research on loyalty programs, however, has often studied such programs in a non-competitive setting and has often focused on a single program in isolation. Addressing this gap, the current research examines the effect of a firm's competitive positioning and market saturation on the performance of the firm's loyalty program. Using firm- and individual-level data from the airline industry, our results indicate that, bigger firms tend to benefit more from their loyalty program offerings than smaller firms, creating a further disparity among these firms. Moreover, the impact of an individual loyalty program decreases as the marketplace becomes more saturated with competing programs. However, this saturation effect is moderated by category expandability. When the product category is highly expandable, saturation effect disappears. Under such situations, loyalty programs can help an industry gain competitive advantage over substitute offerings outside the industry, and multiple programs can effectively coexist even under a high level of market saturation.

3 - The Impact of Category-based Loyalty Programs

Els Breugelmans, Assistant Professor of Marketing, Maastricht University, Tongersestraat 53, Maastricht, LI, Netherlands, e.breugelmans@mw.unimaas.nl, Jie Zhang

Prior research on retail loyalty programs (LPs) has mainly focused on LPs that determine rewards based on the total amount that a consumer has spent with the retailer. In this study, we examine a new type of LP that is geared towards spending in specific product categories. Under this design, consumers earn extra points for purchases made on selected product categories. Like in a conventional LP, the total points collected can be redeemed for purchasing any merchandise in the store. But unlike in the conventional setting, price discounts in the selected categories are replaced by reward points that are added to the total points collected. We call this a category-based LP (CBLP). The main objective of this study is to investigate the impact on various aspects of consumer purchase behavior when a retailer switches to CBLP. Our data are provided by an online grocery retailer that had a conventional LP in place previously and switched to CBLP in a large number of product categories after September 2005. The dataset includes detailed purchase information of over 4,000 households during a 26-month period before and after the change of LP design. We investigate the impact of this policy switch on store visitation and total shopping trip spending, as well as purchase incidence and quantity in each of the top 30 categories. Our preliminary results indicate that the CBLP significantly increased baseline store visit frequency for most LP members while the majority of non-members were not affected significantly. Moreover, existing LP members and those who joined the LP after the policy switch appeared to be more responsive to the new CBLP offers than to conventional price discounts of the same monetary value.

4 - Effects of Introducing and Terminating a Loyalty Program: The Role of Monetary and Non-monetary Rewards

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Companies across the globe spend billions of dollars on loyalty programs. A pressing question remains whether these programs succeed in enhancing customer loyalty, and even more so what would happen if a program is terminated. Based on a survey among 9,783 consumers about 24 loyalty programs, our research shows that just over half of the consumers perceive a loyalty program to enhance their loyalty when a customer enters the program, whereas the others perceive no effect. The first group consists of three subgroups: one, for which the positive effect of entering the program is persistent, one, for which it exceeds the negative effect of terminating the loyalty program, and one for which the positive effect from the introduction of a loyalty program is balanced by the negative effect due to its termination. We find that monetary elements of the loyalty program design fail to stimulate customer loyalty. In particular, a saving element does not significantly influence program effectiveness when a customer has entered a loyalty program, whereas it has a negative effect on loyalty if the loyalty program is terminated. Discounts do not have a significant influence on program effectiveness, neither after the entrance to the loyalty program nor in case of loyalty program termination. In contrast, discrimination of members versus non-members is a powerful tool in creating customer loyalty that would last even if a loyalty program stops. We discuss implications for loyalty program design and directions for future research on loyalty programs.

■ TA04

Port Alberni

New Approaches in Understanding Word-of-Mouth

Chair: Dave Bussiere, Assistant Professor, University of Windsor, 401 Sunset, Windsor, ON, N9B 3P4, Canada, bussiere@uwindsor.ca

1 - A Multi-Stage Model of Word-of-Mouth and its Impact on Attitudes and Purchasing Behaviors

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Word-of-mouth (WOM) is an important mechanism through which information spreads about brands, companies, and products. It is one of the drivers of the diffusion of innovations and is at the core of social contagion processes. This paper examines how messages spread from consumer to consumer. An individual-level multi-stage process model of WOM is presented. This model breaks the WOM process down into (1) initial transmission, where a consumer with first-hand experience with a brand or product decides to transmit a message about it to peers, (2) reception, where a consumer decides whether or not to listen to messages, and (3) retransmission, where a consumer who has received a message from someone else considers passing it on to others. Four sets of characteristics (related to the transmitter, the recipient, the social network, and the message) are determinants of the three stages of this process. The overall model is empirically supported in two experiments that examine the determinants of WOM transmission and reception decisions, as well as the impact of received messages on brand attitudes, purchasing behaviors, and subsequent retransmission decisions. The results highlight the critical role of the reception and retransmission stages in diffusion.

2 - Optimal Heterophily and the Impact of Word-of-Mouth

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Most of the past WOM (word-of-mouth) research has focused on the attributes of WOM sender, such as opinion leadership and innovativeness. However, since WOM involves the interaction of the sender and the receiver, it is important to examine the relationship between the two. Among the research stream of personal influence which examine the relational context, there are two contradicting arguments; the one that argue the power of homophily (i.e., "birds of a feather flock together"), and the other which argue the power of heterophily ("opposites attract"). When a WOM sender and a receiver are homophilous, the sender is unlikely to know anything more than the receiver. Thus, a WOM receiver is more likely to be exposed to new ideas when interacting with a WOM sender who is dissimilar, but at some point the difference becomes so great that

communication fall off. This suggests the presence of "optimal heterophily". In this paper, dyads of WOM sender and WOM receiver are collected to examine the point of optimal heterophily to maximize personal influence. It further investigates the mechanism of successful WOM by identifying the predictor of WOM seeking/sending behavior, and explored the causal relationship between WOM and other important marketing constructs such as Veblen effect, bandwagon effect, opinion leadership, brand loyalty, and media exposure. The result of empirical analysis provides managerial insight for viral marketing.

3 - The Human Components of Word-of-Mouth: Humor, Impatience, Sarcasm and Anger

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Consumers often participate in word-of-mouth conversations as a means of exchanging product or service information. These informal conversations allow post-purchase consumers to complain about or praise a service provide, product quality or service delivery. It also eases the consumer decision making process, especially when consumers are inexperienced with a product/service category. These pre-purchase conversations typically revolve around product specifications, pricing, warranties, quality and return policies. Together these transactional issues dominate current word-of-mouth research. Inherent in these word-of-mouth communications, however, are the intricacies of human interaction. Word-of-mouth is, by definition, communication between individuals. Based on exploratory qualitative research, we develop a model that explores the impact of message-based emotions on word-of-mouth processing. Using an experimental design and structural equation modeling, we test the model. The model implies that communication modifiers such as humor, impatience and sarcasm confuse and weaken message processing, behavioral intentions and intentions to pass on the received word-of-mouth message when compared to messages with a neutral tone. In contrast, anger in word-of-mouth messages, especially negative word-of-mouth messages, strengthen the impact of word-of-mouth messages when compared to messages with a neutral tone. Gender issues are also analyzed. We discuss the implications of the model and highlight potential future research.

■ TA05

Grand C

Issues in New Product Adoption

Chair: Juan Wang, Graduate Student, University of Guelph, Department of Marketing and Consumer Studies, University of Guelph, Guelph, ON, N1G2W1, Canada, jwang@uoguelph.ca

1 - Determinants of RFID Adoption in Retail Chains: A Statistical Evidence

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Radio Frequency Identification (RFID) has been broadly referred as a revolutionary logistics tracking tool and has received increasing attention in business sectors. Although RFID studies have reported a wide range of potential benefits, a number of challenges have still hampered the adoption of RFID. Assessment of customer behavioral intention in consuming ICT is a fundamental step in technology market studies. However, the behavioural intentions of industry-level customers in recent RFID studies have received little attention, and analytical models are lacking. In the absence of such information on potential consumers, technology development and the operational design of RFID can be hardly justified. This study aims to apply diffusion of innovation theory (DOI) to investigate the factors affecting retail chain decision of adopting RFID using the data of 132 Taiwanese retail chains. Previous DOI studies identified three major categories to predicting technology acceptance of firms, including innovation, organizational, and environmental variables. The interdependence effects between these variables were raised but not yet properly testified. To increase the model prediction, three indirect effects were established between the main variables besides three direct effects from the variables. Structural Equation Modeling was applied to calibrate the causal relationships. The interdependence of the independent variables is found on empirical evidence. The result reflects the general attitude of Taiwanese retailers in adopting information technology in response to fierce business competition.

2 - One's Innovativeness and Adoption Time of an Innovation

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Suppose there is general innovativeness: one is interested in innovations over various product categories in general. Then we say one has general/innate innovativeness. Midgley and Dowling (1978) defined that innovativeness is a personality trait possessed, to a greater or lesser degree, by all members of a society. Suppose one owns three generations of Play Stations. We say one has a category-specific innovativeness. Goldsmith and Hofacker (1991) developed a six-item, self-report scale to measure innovativeness within a specific domain of interest familiar to the consumer. This six-item, self-report scale is aimed to be adaptable across product categories. This paper investigates the relative effectiveness of general/innate innovativeness and a category-specific innovativeness for the prediction of one's adoption time of an innovation in a certain product category, specifically in the electronic game machine category.

3 - Stuck in the Adoption Funnel: The Effect of Delays in the Adoption Process on Ultimate Adoption

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Many firms have introduced internet-based customer self-service applications, such as online payment or brokerage services. Despite high sign-up rates, customers do not always use such services intensively, however. In our data from a German bank's online banking operations, only 24% of registered users ultimately complete a substantial number of transactions online. We provide one explanation for this low usage by focusing on the staggered nature of the adoption of such technologies, consisting of sign-up, experimentation, trial, and finally substantial usage. Drawing on research on memory, learning, and momentum, we suggest that delays in completing the initial stages of this "adoption funnel" contribute to low usage. We assess the effect of delays in early stages on ultimate adoption by exploiting exogenous variation in customers' usage of the internet due to differences in vacation and holiday schedules across German states. We find that early delays significantly reduce a customer's probability of moving to substantial usage: A 10-day delay of a customer's first login reduces the likelihood that she will use the technology substantially by 33%. This effect is more severe for demographic groups with less online experience. Our results suggest significant foregone cost savings opportunities from such delays in adoption.

4 - Determinants of New Product Features Adoptions of Two Product Categories

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Consumers' choices of new product adoptions have gradually changed into their decisions on whether to adopt particular new features or not. Drawn from previous literature, a conceptual framework has been proposed to test the effects of possible determinants on the adoption of new product features. In particular, we investigate how socio-demographics, personal innovativeness, social contagion, reservation price as well as domain-specific attitudes influence the adoption of new product features. We also investigate how consumer choice varies based on the price and composition of competing options, as well as on the inherent characteristics of the individuals. We have tested our hypotheses using individual level model estimates from discrete choice experiments with extra preference information and structural equation modeling framework. Two product categories, cellular phones and breakfast menus, were selected for the purpose of cross-categorical comparisons and generalization.

■ TA06

Grand B

Modeling Movie Box-Office

Chair: Young-Hoon Park, Assistant Professor of Marketing, Johnson Graduate School of Management, Cornell University, Cornell University JGSM, 330 Sage Hall, Ithaca, NY, 14853, United States of America, yp34@cornell.edu

1 - Inferring Initial Penetration with Attitudinal Tracking: A Study of Opening Weekend Box-office

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Predicting initial adoption of a new product is always a challenging task. In this paper, we provide an approach that uses the changes in choice intent before product launch. We propose a model in which we infer initial penetration, the opening weekend box office, based on the growth model of choice intentions. A hierarchical random effects growth model (Muthén 2003; Kaplan and George 1998; Bryk and Raudenbush 1992) is developed to capture the longitudinal changes in choice intentions. The parameters of the growth model, often called growth factors, are explained by a set of key time-invariant predictors. The relationship between attitudinal growth factors and actual box office provides the basis for pre-release forecasting, whereas the relationship between growth factors and the studio's marketing efforts and movie characteristics provides the basis for a studio's product/marketing strategy. When the growth factors are related to a set of key predictors and, based on that observed relationships, we should be able to predict opening weekend gross of a new movie. The variables used in the study have been understood as highly relevant box-office contributors in the entertainment industry (Eliashberg, Elberse, and Leenders 2006; Ainslie, Dréze, and Zufryden 2005). The proposed pre-release forecasting model is based on the generalizations of first-choice growth using a Bayesian growth model in which the growth factors are estimated and modeled with time scores and other predictors. The application of the proposed model is illustrated with 50 plus movies and it shows more accurate pre-release prediction results by incorporating attitudinal tracking.

2 - Investigating the Role of Local Market and Exhibitor Characteristics on Box-office Performance

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A burgeoning literature in marketing and economics has focused on studying the box-office performance of motion pictures using national-level data. These studies have shed light on key drivers of movie demand. More recently, using similar data, some studies have extended the analysis of box-office performance to account for potential competition among the various movies showing on screens at a given point in time. In other words, performance of a given movie might depend on the choice set available to the consumer at the time of viewing. All these models are useful from a descriptive perspective and also a practical perspective to forecast the performance of a movie over time. Thus they provide potentially useful inputs to distributors making decisions on some of these box-office drivers. Driving the overall success of a movie at the aggregate country level, however, is the movie's success at the level of the individual exhibitor (or movie theater). In order to identify the most appropriate set of exhibitors for a movie, a distributor needs to understand the drivers of box-office success at the level of the exhibitor. However, aggregate country-level analyses, such as those described previously, do not account for such location-specific effects, since they usually include the total number of screens (regardless of location) as a driver of box-office revenues. Hence these analyses are unsuitable for the identification of locations at which the distributor should be screening (or stop screening) a particular movie. Our first objective in this paper is to gain a better understanding of the drivers of motion picture box-office performance at the level of the individual exhibitor. While this exercise is largely descriptive, our second objective is to use the outputs of our analysis to address some of the issues (mentioned previously) that cannot be readily addressed with extant models and data. Specifically, we study the impact of distributors' only "local advertising"or only "national advertising" policy. We also use the model outputs to demonstrate how they can provide potentially useful information for exhibitors as well. In particular, we look at the issue of a price hike by an exhibitor chain and at its impact on title-specific demand for all titles screened at locations belonging to that chain and other competing chains. Next, we examine issues such as the marginal benefit to a theater, in terms of additional revenues, from running the movie for an additional week. The exhibitor can then trade this off against the opportunity costs involved with such an arrangement. All the above "experiments" we believe, enhance insights available to both the distributor as well as the exhibitor as they complement insights available from extant models and methods.

3 - Spatial Econometric Model of Box-office Revenues - An Exhibitor-level Analysis

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Extant research in many research domains has shown that consumers' utilities for goods vary according to the alternatives available in the same geography (market), across time, and as a function of the "competition set" of concurrently available goods within a given location. The movie industry (and in particular box-office sales) is no different; titles compete within a theater and across theaters both within and across movies for "eyeballs". Yet, to date these issues (in combination) have been extremely hard to study due to the lack of disaggregate data that is necessary to understand time-varying inter-title competition at the local exhibitor-level. This research fills that gap by fitting a spatio-temporal model of movie demand that allows for inter-title competition within-exhibitor and across theater (for a given geographic market) and over time which is enabled via our acquisition of a comprehensive disaggregate database of title-by-exhibitor-by-time ticket sales for all movie titles over a 16 month time horizon. With this data in hand, and by fitting a series of nested spatial econometric panel data models, we are able to estimate the impact of different sources of competition on movie sales and added predictive ability to forecast future demand. While we provide many empirical results, our findings around the existence of extensive intra-exhibitor competition across titles and spatial nature of inter-exhibitor compare both managerially important, novel, and empirically relevant. Implications of the model results for distributors and exhibitors are also discussed in detail.

■ TA07

Grand A

Brand Choice and Market Structure

Chair: Rakesh Niraj, USC-Marshall School of Business, Hoffman Hall 611, 701 Exposition Boulevard, Los Angeles, CA, 90089-0443, United States of America, niraj@usc.edu

1 - Reference-Quality and Dominant Reference in Aggregated Demand

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The paper argues that the traditional analysis of brand choice does not properly address one of important concepts in consumer choice - reference quality. The concept of reference quality emphasizes consumers' relative evaluation of product quality in their purchasing behavior and their asymmetric response to gains and losses relative to a reference point in the product quality space. Previous research on reference price has been centered on non-durable markets where product quality is stable over time. However, in a technology-driven market where product quality constantly advances and new features are often introduced, product innovation expands consumers' choice sets with broader alternatives and rapidly improves consumers' experience with product quality. Correspondingly, consumers' (internal) expectations with respect to product quality develop rapidly and the role of reference formation regarding product quality seems to become more significant in product demand. Therefore, in this paper, we empirically demonstrate the effects of reference quality on the demand of the U.S. wireless phone market using a random coefficient model and non-nested test. In addition, we empirically confirmed that the contextual component plays more significant role than the temporal one in reference-quality formation and the average product quality plays the most important role in the contextual component. However, we do not consistently find that consumers' response to gains and losses relative to a reference point in product quality is asymmetric without supporting loss aversion behavior of consumers in their quality evaluation.

2 - A Household Production Approach to Modeling Snack Consumption

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Snacks are advertised with a wide variety of shapes, colors, ingredients, or for giving a multitude of benefits upon consumption. But do all these benefits and attributes matter to consumers? Combining longitudinal and survey datasets on consumption of 100+ snack brands consumed by a US nationally representative consumer sample over the past 3 years, we model the choice of different snacks and snack brands as a function of occasion and demographics. We also model the frequency of each occasion as a function of consumer characteristics and time. Our model is derived from a household production framework in which different occasions make different benefits more or less salient, and in which the benefits are produced by brands. Our analysis indicates that consumers view snack brands relative to 5 basic dimensions: health status, taste, functional performance, personal satisfaction and social impact (how the snack choice helps the consumer stand out socially). Brands produce a particular amount of these benefits for each consumer, and the weight attached to each benefit varies with characteristics of snack occasions, and demographics. We use the underlying structure of benefits, occasions and demographics to model the structure of the snack market.

3 - Market Structure Analysis

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We illustrate how market structure analysis, using both forced switching and scanner data, can be applied to determine the relevant market in antitrust cases. In particular, we comment on the Federal Trade Commission's view, when in 1986 it opposed PepsiCo's attempted acquisition of 7 Up and Coca Cola Co.'s attempted acquisition of Dr Pepper, that acquirers and acquirees sold products in the same lines of commerce and that the relevant market was carbonated soft drinks.

4 - The Effects of Social Contagion on Brand Loyalty: Insights From a Consumer Durable Market

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Brand loyalty or inertia is a significant source of advantage for the incumbents as it discourages consumers to try out other new products. Competitors use marketing communication such as advertising to reduce consumers' switching costs so that they would try out their brands. Shum (2004) examines the impact of advertising on brand loyalty in the context of consumer packaged goods. However, consumers' choice of a product is not only influenced by firm controlled marketing communication efforts, but also by social contagion or peer effects in a market which are outside of a firm's control. In this research, we seek to understand the effect of social contagion on consumers' brand loyalty. Capitalizing on a rich and unique panel dataset of consumers' purchases of personal computers complemented with detailed advertising data both at the local (DMA) level and the national level, we develop and estimate a disaggregate level model. Controlling for consumers' unobserved heterogeneity in their preference is imperative when examining inertia in choice. We do this by following a random coefficient approach, estimated via simulated maximum likelihood. Our study contributes to the extant literature, as we analyze the presence and magnitude of consumers' inertia in their brand choice in the context of durable markets. Furthermore, we examine impact of both firm initiated and consumer initiated communication on consumers' brand loyalty. We find that both sources of communication have significant influence on repeat purchase of computers and ignoring one or the other biases the estimated impact. Our results have strategic implications as to how marketing managers can better manage their marketing communication efforts.

■ TA08

Port Hardy

Reference Points, Timing, and Concessions

Chair: Charles C Cui, Associate Professor, The University of Manchester, Manchester Business School, Booth Street West, Manchester, M15 6PB, United Kingdom, Charles.C.Cui@mbs.ac.uk

1 - Reference Effects of Multi-Item Promotions on Brand Choice Behavior

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In-store price promotions like temporary price reductions (TPRs) and multi-item promotions (MIPs) are commonly used by many manufacturers and retailers. Previous research has focused on the effects of TPRs. It finds that these promotions typically lead to large sales increases in the short term. However, TPRs decrease reference prices and the repurchase probability of a brand in the long term. While these effects have been well established for TPRs, the long-term effects of MIPs on brand choice have not been studied, yet. In our research, we compare the reference effects of MIPs to those of TPRs. In doing so, we take into account two types of reference effects. The first one is the reference price effect. We expect MIPs to decrease reference prices less than TPRs. For MIPs the price is not displayed as price per unit. That makes it harder for consumers to compare prices and adjust their reference price. Second, Lattin & Bucklin, 1989 have shown that there can also be a reference promotion effect. Consumers form expectations not only about prices, but also about the non-price parts of a promotion. They perceive a loss when they find no such promotion on their next purchase occasion. We expect this reference promotion effect to be stronger for MIPs than for TPRs, because MIPs are perceived as more special and draw more attention to the promotion. In an experiment, we ask respondents for their reference prices and observe their brand choice behavior. We find support for both our hypotheses. MIPs do not decrease reference prices, while TPRs do. Yet, both types of price promotions decrease repurchase probability for the promoted brand to a similar extent, indicating that they have a stronger reference promotion effect than TPRs.

2 - The Effect of Timing on Consumers' Responses to Recommendations

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Past research has discussed consumers' confirmative behavior and indicated that consumers have a tendency to follow others' actions or suggestions, even when their initial preference would have been different. In this research, we examine how the timing of the recommendation relative to the decision moderates a consumer's response to a non-default recommendation from her peer (i.e. a recommendation for an option that the consumer initially does not prefer). Drawing on research regarding psychological distance, we show that a match of the construal level between social distance and temporal distance facilitates taking the non-default recommendation. Specifically, when consumers receive a non-default recommendation from others for a distant future event, they are more likely to follow the recommendation and change their preference. However, when the non-default recommendation is made for a near future event, they are more likely to stick with their own preference and ignore the recommendation. Near future recommendation only has an impact in changing consumers' preferences when it is explicitly based on feasibility (i.e., how feasible to implement the decision). Further, we demonstrate that the recommendations of close others (e.g. friends) are more influential than recommendations of distant others for near-future decisions. The reverse is true for distant-future decisions. This work adds to the literature on both social interactions and psychological distance.

3 - Seller's Facial Expressions & Concession Patterns: Buyer's Beliefs in Influencing Price Expectations

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In marketing negotiations, can a seller utilize tactics such as facial expressions and price concession patterns to influence buyer price expectations? If this happens, what could be moderating any such influence? These are some of the questions that we attempt to address using a common negotiation context. Buyers' beliefs regarding product quality may influence how these different seller tactics are interpreted and assimilated. For instance, buyer's who are less sure of the product's value may try to use information from other cues available in their environment, relative to those who are more confident about the product. This in turn could change buyer's expectation regarding the price negotiation. Thus, the present research examines how cues involving seller's facial expression change and seller's concession pattern are interpreted contingent on buyer's beliefs about product quality. The studies are set in a common automobile purchase negotiation context. Computer mediated negotiations are used in which the facial cues are manipulated using pictures of the purported salesperson, with expressions changing from no smile to smile (positive expression change) or from smile to no smile (negative expression change). The concession patterns are manipulated at two levels (convex-soft/hard and concave-hard/soft). Buyer's uncertainty regarding the car's quality is also manipulated at two levels (high and low). Results from studies will be presented to explain the phenomenon and to provide insights about seller negotiation tactics.

4 - Consumers' Shopping Motivations and Use of Reference Points

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Reference points are strong predictors of consumers' responses in their evaluation and choice of products and services (e.g., Thaler 1985, Dholakia and Simonson 2005). Dholakia and Simonson (2005) categorize reference points as implicit reference points (i.e. spontaneously used by the consumer) and explicit reference points (e.g. suggested by a sellers or advertisers). Much of the research attention is focused on explicit reference points such as reference price while little is know about implicit reference points. Further, there is little research on the conceptual domain and categories of reference points at a general level and how consumers' spontaneous use of different categories of reference points is affected by consumers' purchasing motivation. In an attempt to fill in this lacuna, this study 1) advances the concept of purchasing motivation and operationalizes it into needs (e.g., utilitarian) and wants (e.g., hedonic/social-oriented) shopping motivations; 2) conceptualizes constructs of consumer reference points (CRP) and develops a multi-dimensional measurement scale of CRP; 3) examines the predictive effects of needs/wants orientated purchasing motivations and susceptibility to interpersonal influence (as a personal factor) on consumers' use of reference points. Data were collected from three survey-based studies on consumers' mobile phone purchase. Results from the structural equation modelling analysis show that need oriented motivation has a significant effect on consumers' use of financially relevant reference points; wants oriented motivations have significant effects on the use of socially relevant reference points. Theoretical and practical implications are discussed and further research issues are addressed.

■ TA09

Junior B

Models of Customer Churn

Chair: James Hess, Professor, University of Houston, Department of Marketing, 334 Melcher Hall, Houston, TX, 77204, United States of America, jhess@uh.edu

1 - Modeling Individual Customer Transaction Behavior with Hidden Markov Models

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In this paper, we model individual customer transaction behavior using Markov chains. This approach assumes that consumers experience sequences of different latent states, which determine their purchase behavior. Building on the stream of research in this area, which models individual consumer transaction behavior on the basis of Poisson models, we analyze Markov chains with multiple purchase rates. As part of the state space of individual consumers and to account for the possibility of customer defection, we incorporate an absorbing state with lambda=0. This modeling approach departs in important ways from similar models, which have been proposed in the literature. We account for change in individual consumer transaction behavior over time, other than defection. Poisson models have been extended to account for defection (e.g. Schmittlein et al. 1994, Fader et al. 2005). Defection can be viewed as an absorbing state in a Markov chain. This allows for wide dispersion of purchasing behavior. We use simulated data and a real-life data set from FMCG's to test the proposed model against a variety of alternatives, including the Pareto-NBD and the BG-NBD model. We specifically address the predictive power of a Markov model with a transition matrix that includes an absorbing defection state against alternative models. Empirical results indicate that the proposed HMM has significant advantages to predict customer behavior when purchase levels are dynamic and overdispersed to a single Poisson model.

2 - Staying Power of Churn Prediction Models

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Many services are sold on a contractual basis and therefore a company's success depends heavily on maintaining long term relationships with its customers. Churn has been noted as one of the most important drivers of customer lifetime value. Numerous analysis tools are available to obtain churn predictions (Neslin et al. 2006). Although multiple authors have studied the predictive performance of different churn models, less attention has been paid to whether models can be used over a longer period of time. In this paper we therefore study the staying power, that means how well a model predicts in a number of periods subsequent to the estimation period. And to what extent the significance and size of the parameter estimates of a particular model vary over the periods. We evaluate the staying power of several models using individual customer data of a large internet service provider in The Netherlands. We compare a number of commonly used methods, such as the logit model, chaid model and the bagging classification method. Our study yields new insights on churn modeling techniques and their staying power. It provides a framework for database analysts to reconsider their methods used for churn modeling and to assess for how long they can use an estimated model.

3 - Modeling Loyalty for Better Customer Relationship Management

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CRM (Customer Relationship Management) interventions like direct mailings have long been used by firms to improve customer relationships. In this study we develop a method that will allow the firm to understand the effect of these interventions on customer loyalty. Loyalty is assumed to be unobserved and hence is modeled as a continuous latent variable. We use a continuous generalization of the "Hidden Markov Model"(HMM) called the "State Space Model"(SSM) to better predict a customer's loyalty function towards a particular firm or product. We adapt the SSM model to our study by combining the generic model with a set of covariates that we use to better understand customer loyalty. We predict the customer's probability of purchase given certain marketing actions and the predicted loyalty state using a hazard model. We combine the hazard model and the SSM to predict the customer's probability of purchase at a given loyalty state. We apply this model to data from a retailer of health and beauty aids, to help them better understand the effect of their CRM interventions on the customer's loyalty towards the firm and their repurchase intentions. We also point out the types of CRM interventions that play a role in improving the loyalty of the customer to the firm and those interventions that have no effect. This information can hence help the firm better organize its menu of CRM interventions. Finally we introduce a new methodology to the literature on modeling relationships in marketing. The methodology improves upon existing methods by allowing for a more flexible and efficient estimation procedure. We also find that the predictions derived from our estimation procedure are better than those computed from the other methods discussed.

4 - Competitive Customer Relationship Management: Acquisition Versus Retention

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Customer relationship management suggests that sellers identify their most valuable customers and provide special products/services to them, either immediately in an effort to build a sense of commitment to the firm (an acquisition strategy) or just as they are thinking of leaving (a retention strategy). When firms compete, the choice between an acquisition or retention strategy depends critically on the switching rates of these "loyalty club" customers. If retention only modestly reduces the tendency of loyalty club members to switch suppliers, then in a competitive marketplace one firm pursues a retention strategy and its rival is forced to differentiate by choosing the less profitable acquisition strategy. If retention-orientation nearly eliminates club switching, competition drives the acquisition strategy out of the Nash equilibrium. Because customer churn consists of both switching and abandonment, a switch to a retention strategy focused on the most valuable customers can actually increase the churn rate of a firm by reducing the size of the loyalty club.

■ TA10

Junior A

Modeling Dynamic Market Competition

Chair: Romana Khan, University of Texas Austin, McCombs School of Business, Dept of Marketing, Austin, TX, 78712, United States of America, romana.khan@mccombs.utexas.edu

1 - Competitive Impact of and Response to Deceptive Advertising

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This study focuses on how firms are impacted by and react to the self-destructive actions of their competitors. Previous research on how firms are impacted by their competitors' actions focuses predominantly on actions that create value for their competitors. Studies on self-destructive actions have concentrated on the financial impact to the focal firm and consumer processing of the event in relation to the focal firm. To look at the association between firms and their competitors' self-destructive actions, we analyze how FDA citations for deceptive marketing impacts competing brands' firm value, prescription share, and revenue, as well as, how advertising spending changes for those competitors. To explain the variance in the impact of the events on the dependent variables, we consider the effects of risk based upon theories of fear appeals and competitive reaction. Additionally, the impact on sales and firm value are moderated by changes in competitor advertising. The results help to illuminate what firms can expect to occur in the wake of their competitors' marketing missteps and how these consequences can best be addressed by their own marketing strategies.

2 - Dynamic Marketing Mix Strategies for Two-sided Platform-firms

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Companies spend billions of dollars on their marketing activities and hence it is very important for them to assess the effectiveness of their marketing activities and plan their marketing-mix optimally. To date, however, marketing-mix models have focused on firms facing one-sided markets or non-interacting customer groups. On the other hand, today's marketplace also has a large number of platform firms (e.g. newspapers, television stations, search marketers, shopping mall developers) that face two-sided markets, i.e., derive revenues from two distinct classes of customers (e.g., subscribers and advertisers) whose ultimate benefit stems from interacting through the common platform. Such platform firms must determine their optimal levels of marketing investments towards each side of their market taking into account the interactions between the two sides. The key difference between marketing investment decisions in two-sided versus one-sided markets is that marketing efforts focused on one side have direct as well as indirect effects via attraction or repulsion links between the two sources of revenues. In this paper, we develop and empirically validate a dynamic market response model for a newspaper company which incorporates both these effects and utilize it to derive the dynamically optimal marketing investment policy for each side of the market. We evaluate the profits from these optimal solutions and compare them to those resulting from investment policies that ignore the two-sided nature of the firm's market. More generally, we investigate and derive insights into how dynamically optimal marketing budgeting and allocation decisions differ across different types of two-sided markets (defined by the nature of interaction between the two sides).

3 - Non-Linear Pricing and Competition: An Empirical Study of the Auto Rental Industry

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We study the impact of competition on nonlinear price schedules in the auto rental market. Auto rental firms offer a menu of prices that differ across car (e.g. Economy vs. Full size) and consumer types (Weekday vs. Weekend customers). We examine the effect of competition on the general level of prices as well as the price curvature for auto rentals at commercial airports. We develop an original database that includes the number of auto rental operators at every commercial airport in the country. The data are interesting because we observe a large variation in market structure ranging from more than 100 monopoly and duopoly markets to several competitive airports with more than eight firms. We assemble an extensive set of variables that capture the demand and cost conditions. These variables include both airport specific factors (e.g., airline passenger traffic) and local demographics in the city in which the airport is located (e.g., income, retail wages). Finally, we collect rental prices for different consumer segments and car-types that are regressed against the market structure variables and other control factors. Our results show that prices for leisure segment (weekend rentals) fall faster due to increased competition. More interestingly, we find that the price premium for the large cars is increasing in the number of firms for the business segment, while increased competition has the opposite effect in the leisure market. We relate our findings to theoretical models on nonlinear pricing, which generally make ambiguous predictions on the impact of competition on nonlinear pricing.

■ TA11

Port McNeill

Sales Management I

Chair: Noah Lim, University of Houston, 334 Melcher Hall, Houston, TX, 77025, United States of America, noahlim@uh.edu

1 - Delegation of Authority and Sales Force Compensation in Industrial Markets

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One crucial set of decisions that sales managers face is choosing how much pricing authority they should delegate to their salespeople, and under what conditions. The theoretical literature has associated delegation decisions with asymmetric information and communication difficulties along the firm's hierarchical structure, and to issues regarding sales people's incentives. Our work uses a unique individual salesperson level dataset to empirically investigate the role of these various factors in affecting the degree of pricing authority delegated by managers to their salespeople. We measure delegation as a continuous variable defined as "the percentage off the list price that the particular salesperson can offer her customers without seeking approval from her sales manager". We also investigate whether this decision is complementary to the other key organizational design choices in this context, namely the intensity of incentive compensation and the degree of task delegation offered to the sales person. Implications for theory and practice are drawn.

2 - Rewarding A While Hoping it's Correlated with B

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It is common for firms to pay their employees on a small set of accessible metrics. These metrics relate to a specific set of behaviors though, it is hoped, a broader set of desired behaviors would also be encouraged by the compensation system, even though there is no direct relationship between these other behaviors and compensation. A classic example is a sales rep who is typically paid only on sales outcomes but is often expected to spend a significant amount of time building relationships, following up on customers, etc. The extent to which these other behaviors are performed is often difficult for researchers to observe. To investigate the general question of the potential inefficiency in such incentive plans, we focus on secondary school exams. In 1993, Massachusetts established the MCAS, a

series of tests for students in grades 4, 8 and 10. The test was first administered in 1998. In 2000, the state stipulated that, beginning with the class of 2003, students would need to meet a minimum threshold in order to graduate. School districts are also evaluated on their students' performance. Thus, we consider this a high-powered scheme. We ask whether this scheme actually results in better teaching (the desired behavior) or whether, on the other hand, students are simply taught to take the test more effectively (the compensated behavior)? To test this, we created a dataset with the MCAS scores for each school district in the state as well as other key socio-economic variables (income, land area, home value, education budget). We also collected data on the town's SAT scores as an independent measure of teaching effectiveness. Our results suggest little improvement in the desired behavior despite significant improvement in the compensated behavior.

3 - Does the Proportion of Winners in Sales Contests Matter?

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When designing sales contests, managers have to determine the optimal number of prizewinners. When salespeople are risk-neutral, models of sales contests based on standard economic theory predicts that the contest with the lowest proportion of winners yields the highest effort. This research shows that if salespeople are loss averse, there are conditions where contests with a higher proportion of winners can result in higher effort. These predictions are also validated experimentally.

■ TA12

Parksville

Price Evaluation, WTP, and Pricing Options

Chair: Dominik Papies, University of Hamburg, Institute for Marketing and Media, Von-Melle-Park 5, Hamburg, 20146, Germany, dominik.papies@uni-hamburg.de

1 - Category Association, Price Information and Willingness to Pay

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Products frequently can be associated with different categories. For example, an energy bar may be categorized as a food bar to reduce hunger or categorized with other products that stimulate energy. The way that this energy bar is categorized may affect consumer perception of its valuation, and marketing may be used to affect the category association. If marketers can impact consumer valuation through the associations they generate, it follows that they should be careful to select the appropriate category and brand associations for the product. Despite these implications, there has been surprisingly little research done in this area. This research is an attempt to address this shortcoming. In this research we examine the impact of associating products with different product categories and their prices. This association is made by manipulating the information provided to research respondents. With the energy bar as the basic product, we vary the product category with which it is associated as well as the prices with which these categories are associated, and test whether these category, brand and price associations affect consumer willingness-to-pay for the specific brand under question under the hypothesis that associating the brand with a higher-price alternative will increase respondents' willingness-to-pay. We also predict that this impact will be mitigated if consumers are familiar with the brand.

2 - Good Deal or Keep Searching? The Impact of Regulatory Focus on Price Evaluation

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This research examines how consumers' self-regulatory focuses influence their reliance on external prices when evaluating the current price of a target product. Previous research suggests that consumers make instantaneous comparison between the current price and their internal reference prices (IRP) (Mazumdar and Papatla 2000; Thaler 1985). We propose that consumers may perceive a potential "loss" when the current price is higher, and a potential "gain", when the current price is lower than their IRPs. When the perceived "loss" or "gain" states match their self-regulatory focus goals, consumers become more motivated to seek additional information, resulting in a greater reliance on external reference prices. Three studies demonstrate supportive evidence. First, the impact of external reference price on price evaluations was stronger for participants with salient promotion focus when their IRPs were higher than the target price (i.e., potential gain), but stronger for participants with salient prevention focus when their IRPs were lower (i.e., potential loss) ($F(1, 120)=4.17$, $p<.05$). Second, participants whose IRPs were higher than the current price were more likely to generate ideal-related thoughts (suggesting an activation of more promotion-related goals) than those whose IRPs were lower (58.82% vs. 32.73%, $X2=6.09$, $p=.05$). Third, promotion-focused participants indicated higher price search intention when their IRPs were higher (vs. lower) than the target price (2.18 vs. 1.86), whereas prevention-focused participants indicated higher intention when their IRPs were lower (1.77 vs. 2.26). This research enriches our knowledge on the relations between regulatory focus and consumers' price evaluation, and may have implications on pricing strategies.

3 - Investigating Adult, Children and Family Pricing and its Impact of Entry-By-Donation and Free Offers

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An ongoing concern for marketers of experiential based service organisations is that of consumer pricing options and the associated perceptions of consumers in relation to price variations. In this paper we show how experimental design can help disentangle the demand for adult, children and family pricing options without heightening the attention of respondents to such variation. We also explore how reference prices influence the demand for given product and service packages once they are alternatively offered as either an entry-by-donation option or for free. Using prospect theory, we hypothesise and find some support for a non-linear response to reference prices. Our results imply that consumers may respond to the relative amount saved, but this response varies across the range of reference prices. We examine these issues in the context of generic eco-tourist destinations, given that pricing options are prevalent within the tourism sector where operators often offer consumers various experiential packages. As such, these findings offer valuable insight to tourism operators offering variable priced service packages. In turn, the research has wider reaching implications for those involved in developing marketing strategies for and research into pricing both for not-for-profit and profit service organisations.

4 - What Causes a Hypothetical Bias in Willingness-to-Pay Measurements?

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A valid procedure for measuring consumers' willingness to pay (WTP) is crucial in designing optimal pricing policies or for estimating demand for new products. The literature on measuring willingness to pay provides strong theoretical and empirical evidence that a hypothetical measurement (e.g., direct elicitation or conjoint measurement without purchase obligation) yields different results compared to an incentive compatible measurement (e.g., BDM mechanism including a purchase obligation). This difference is typically referred to as hypothetical bias. Understanding potential sources of this bias constitutes an important step in research on how managers should estimate consumers' WTP. In this research, we conduct experiments that include a hypothetical and an incentive compatible measurement as well as a broad variety of measures (e.g., several consumer traits) that we expect to influence the magnitude of the hypothetical bias. Our results indicate that the hypothetical bias is affected by respondents' individual traits and their perception of the experimental design conditions. We provide implications for management and for further research on measuring willingness to pay.

■ TA13

Orca

Issues in Branding

Chair: Seshan Ramaswami, Singapore Management University, 50 Stamford Road #05-01, Singapore, 178899, rama@smu.edu.sg

1 - The Effects of Line Extensions on Parent Brand Equity: An Empirical Analysis of Supermarket Packaged

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Line extensions are new products introduced in the same category as its parent brand and also carry the parent brand's name. Although firms often seek out strategies to enhance and leverage brand equity through the introduction of line extensions, there is limited research on line extensions when compared to research on brand extensions. Of the limited research involving line extensions, most empirical studies focus on the effect of the parent brand equity on the market performance of new line extensions. We extend the body of literature by exploring the influence of line extensions on the equity of the parent brand. Our proposed empirical model explains how parent brand equity is affected by the number of line extension introductions, the percentage of innovative line extensions over total introductions, and the proportion of advertising devoted to the new line extension. The model uses revenue premium as a brand equity measure and employs the general simultaneous equations model for recursive systems introduced by Tsai, Shau, and Hu (2006). The analysis is over a cross sectional sample of 219 brands from 20 supermarket goods categories. Our findings suggest those brands with a greater number of new line extensions exhibit enhanced total brand equity. Additionally, the higher the equity, the greater the brands benefit from innovative line extensions. Finally, the higher the equity, the lesser the brands benefit from allocating a greater portion of their advertising to new line extensions.

2 - Identifying Customer Segments Regarding Cross-category Brand Loyalty Behavior

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In competitive markets, customer retention is more efficient than trying to attract new customers. Brand loyalty - as a company's strategic asset that has been investigated as an important source of the brand's equity - is an intrinsic commitment to repeatedly purchase a particular brand. Most analyses, however, have been conducted in one specific category only. The aspect of cross-category related brand loyalty has been widely neglected so far. We concentrate on cross-category relationships of national and private brands and on how customers' brand choice decisions are related across several product categories. This knowledge is of relevance for retail managers and manufacturers who think of segment-specific promotion strategies that consider the consumer segments' loyalty patterns across categories. Our measure of brand loyalty is the Share of Category Requirements (SCR) to capture the relative share of category purchases that individual households give to each brand they buy, defined to be each brand's market share among triers of the brand. The SCR measure as we use it is a behavioral and individual-oriented measure. We use scanner panel and corresponding survey data from the year 2006. The scanner panel data contain households' repeated FMCG purchase information of purchases in all chain stores of a specific retailer within a limited geographic region. All the participating households were also asked to fill in a questionnaire on their values and attitudes. From an analysis of brand loyalty patterns different consumer segments result. An ex-post analysis based on general attitudes and other consumer characteristics reveals distinguishing factors between the consumer segments.

3 - What Makes a Star? - Investigating the Evolution Patterns of Athlete Brands

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Celebrities such as movie actors/actresses/directors, musicians and athletes have a great impact on consumers. For instance, Michael Jordan influences consumers not only through his on-court performance but also through his off-court activities such as product endorsements. However, there is little research in marketing literature studying these celebrities from the branding perspective. This paper will particularly study athlete brands—NBA basketball players. In this paper, I will investigate the factors that influence the brand value (defined by all-star status) of an athlete brand over time by using some quantitative methods such as hazard models and probit regression models. These factors include some time-invariant variables — the draft number and position, and some time-variant variables such as player performance, injuries, team performance, star teammates and team changes. The results show that different draft order has a significant impact on the timing that a player becomes a star. Meanwhile, the team's playoff performance, particularly, winning a championship, can promote some athletes to superstars. In addition, the vulnerability of a star athlete to injuries and team performance drop differs on their brand values. The superstar athlete is less vulnerable to his injuries and team performance drops. This research can improve our understanding the evolution of celebrity brands. The findings in this paper benefit not only athletes and professional teams, but also corporate brands that often use celebrity brands to promote their brands. These findings can help those corporate brands to wisely invest their money on their celebrity endorsers.

4 - The Inferential Effects of Product Line Range on Brand Choice

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In three experiments, we examine the effects of product line range on choice shares of individual members of the line, in a competitive context. We first demonstrate that the price/quality range of a product line relative to a competing line significantly affects the choice shares of its line members. However, the mere presence of a higher priced product line member is not sufficient to create this advantage; the higher priced member needs to be an end member of the product line. We also find that this effect is mediated by quality inferences about a brand based on the price/quality range of the sponsoring product line. An interesting implication of this finding is that the robust asymmetric dominance effect is moderated when the target and decoy belong to the same product line.

■ TA14

Finback

Theoretical Models of Advertising and Promotion

Chair: Anthony Dukes, Assistant Professor of Marketing, Marshall School of Business, University of South California, ACC 306E, Los Angeles, CA, 90089, United States of America, dukes@marshall.usc.edu

1 - Optimal Generic Advertising Choices for Competing Industries

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Generic advertising promotes the general qualities of a product category while brand advertising helps promote attributes that are specific to a brand. Frequently, competing industries conduct generic advertising campaigns. For example, the famous milk advertising campaign ("Got Milk?") pits milk against orange juice in the breakfast category. Thus, generic advertising by one industry potentially affects the market size of a competing industry while the impact of brand advertising is limited within an industry. Yet while brand and generic advertising are both available to marketers as competitive tools, the literature on generic advertising has not included the inter-industry effect and has largely focused on within-industry effects. To fully understand the use of generic advertising (especially with the presence of brand advertising) strategies under the competitive environments, we propose a game-theoretic model of inter-industry competition. The analytical results indicate that there are certain market conditions under which it is in fact a dominant strategy for an industry to invest in generic advertising campaign when competing with another industry. In particular, the incentive of generic advertising is stronger with the larger heterogeneity in the effectiveness of brand advertising across firms within an industry. We also check the robustness of main results through a series of model extension related to the market structure, brand differentiation, and game sequences.

2 - Consumer Stockpiling and Promotional Strategies

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Numerous empirical studies in marketing recognize that consumers stockpile products at promotional prices for future consumption. In this paper, we examine firms' pricing decision, when strategic forward-looking consumers engage in stockpiling behavior. We develop an infinite period model to investigate how stockpiling behavior affects firms' pricing strategy in a setting where firms and consumers interact repeatedly. In the pro-

posed model n firms selling similar products face three kinds of consumers: price in-sensitive, price sensitive and opportunistic. All consumers in our model have the same reservation price and consume one unit in each period. In each period, price in-sensitive consumers purchase one unit from one of the firms at random while price sensitive consumers purchase one unit from lowest priced firm. Opportunistic consumers however, may purchase an additional unit for future consumption if prices are lower than a threshold. This threshold is endogenously determined by recognizing that opportunistic consumers will decide to stockpile only if the utility from forward buying at the current price exceeds that from delaying purchase given their expectations of future prices. We find that whether or not stockpiling occurs in equilibrium depends on the market structure, mix of price sensitive, price insensitive and opportunistic consumers. We also highlight how the threshold that triggers stockpiling and firms' optimal promotional policy - frequency, depth of shallow and deep discounts are affected by the market parameters.

3 - Impact of Horizontal and Vertical Market Power on Trade Promotion Budget and Allocation

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US manufacturers have increased substantially the use of trade promotions. Extant literature suggests that market power influences trade promotion negotiations. We examine the impacts of horizontal and vertical power on the decisions on size and allocation of trade promotion budget. We employ data collected in a market experiment and brand-level budget and allocation data on trade promotions to test the following hypotheses: (i) the budget decreases with manufacturer horizontal power and increases with retailer horizontal power; (ii) the allocation to off-invoices (scan-backs) increases (decreases) with retailer vertical power and decreases (increases) with manufacturer vertical power; and (iii) holding vertical power constant, the allocation to off-invoices (scan-backs) increases (decreases) with retailer horizontal power and decreases (increases) with manufacturer horizontal power. In the laboratory experiment, we manipulate horizontal and vertical power using a 2X2 design. The conditions of horizontal power are: "symmetric"(both, retailer and manufacturer have about equal horizontal power) and "asymmetric"(either manufacturer has larger horizontal power than retailer or vice-versa). The conditions of vertical power are: "manufacturer dominant"and "retailer dominant."In the empirical model, we employ a unique data set collected from 43 supermarket companies representing about 40 percent of the total US supermarket sales. Employing brand as the unit of observation, the survey instrument compiles detailed information regarding TP budgets and their allocation. We construct variables akin to vertical power structure and to horizontal power of retailers and manufactures to test the hypotheses.

4 - In-store Media and Channel Management

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In this paper, we study the effects of retailer in-store media on distribution channel relationships. With the advance of communication technology, retailers can open in-store media in their stores and allow manufacturers to advertise through the in-store media. We show that in-store media has an important role in coordinating a distribution channel on advertising volume, product sales, and mitigating supplier competition. Improved channel coordination is achieved through the internalization of advertising decisions from commercial forms of media (i.e., radio, TV, newspaper, etc.). We show how a retailer can strategically subsidize manufacturers on their advertising through in-store media to better coordinate the channel. This subsidization is optimal even when in-store media is more effective than commercial media. With manufacturer competition, a retailer can strategically use a "competitive premium" to ration excessive advertising between competing suppliers in a category. When manufacturers are asymmetric with pre-advertising brand awareness, a retailer has an incentive to price discriminate by charging lower prices to manufacturers whose brand awareness is higher, mitigating wastefully duplicative advertising and reinforcing the channel coordination benefit of in-store media. In addition, retailer in-store media can benefit social welfare with better channel coordination even when in-store media is less effective than commercial media. However, if in-store media effectiveness is very low, a retailer may introduce in-store media for its own benefit with the sacrifice falling on social welfare.

■ TA15

Granville

International Marketing Issues

Chair: Aharon Hibshoosh, Department of Marketing/Decision Sciences, College of Business, San Jose State University, San Jose, CA, 95192, rhibshoosh@gmail.com

1 - Channel Control Efficacy in Foreign Markets: The Role of MNC Global Strategy and Country Environment

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The success of a multinational corporation (MNCs) hinges on effective and efficient management of its subsidiary operations in diverse countries. The MNC subsidiaries in turn have to effectively manage local business partners, including distribution channel partners, to meet the mandate of the MNC headquarters. In this regard, MNC subsidiaries rely on channel control mechanisms as a means to manage channel partners and, as a result, it is important to understand the efficacy of these control mechanisms. We build on literature on multinational strategy and marketing channels to suggest that an MNC's global strategy that is implemented in a country market by its subsidiary along with facets of the host country task and institutional environments would determine the efficacy of the control mechanism that the MNC subsidiary uses to manage local channel partners. We test our model with survey data from a sample of German and Japanese MNCs in the United States by utilizing a Bayesian structural equation modeling framework where data augmentation techniques can be used to model interaction terms.

2 - The Role of Involvement in Country-of-Origin Effects on Product Choice

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Most of past research on country-of-origin (COO) effects indicates that COO directly affects product evaluation under the condition that consumers are low involvement rather than high involvement. This study suggests that high-involvement consumers' purchase decisions may be influenced by COO cues in an indirect way. Using automotive purchase decision as an illustration, consumers infer automobile performance on the basis of intrinsic (appearance, inner decorations, safety structure, etc.) and extrinsic (price and COO) quality cues. Low-involvement consumers tend to rely on the COO image to evaluate product performance because it has been stored in their memory to be easily extracted. Comparatively, high-involvement consumers would like to rely on their salient preference structure built by their expertise to infer quality of products. However, due to having rich product knowledge, high-involvement consumers should also have salient COO image of specific product attribute performance, which may moderate their preference structure. Therefore, we propose hypotheses that (1) COO has direct effect on product choice for low-involvement consumers; (2) COO and intrinsic attributes have interaction effects on product choice for high-involvement consumers. For testing hypotheses, we adopt three countries (the U.S., Japan, and Germany) and some intrinsic attributes to generate automobile choice sets by choice-based conjoint analysis. A logit model is used to detect the interaction effects between COO and other attributes. The empirical results show that most interaction terms are significant in the model of the high-involvement subjects, and few are significant in the model of the low-involvement subjects.

3 - The Empirical Study of Market Orientation, International Experience, Globaling Market Characteristic

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With globalization of markets and competition, expanding foreign markets have become viable opportunities for growth-oriented domestic firms. Business enterprises can continue to increase its firm performance through global marketing strategy in the international market, thus the relationship between performance and marketing strategy have become important issue for academic research and marketing practice. This study aim to shed new light on the relation between global marketing strategy and firm performance, and developed a conceptual model that lings the marketing strategy to its antecedents and firm performance. Besides, to offer sugges-

tions for firm that pursue global marketing strategy. This study investigated the manufacturing firms in Taiwan. The questionnaire was a self-administered mail survey and the pre-test were be conducted in the 10 Taiwanese manufacturing corporation. The sample were be collected from 814 firms in Taiwanese manufacturing industry based on The Directory of Import & Export in Taiwan. CFA (confirmatory factor analysis) and LISREL were employed to examine the hypothesis in the study , and then some important findings have been explored and discussed.

4 - Pricing in Gray Markets with an Independent Wholesaler Importing and Private Importing

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In traditional Gray (parallel) marketing models, the firm, say, a Manufacturer with monopolistic power is competing in its most attractive market say, (domestic) with only one type of importer, say, a Wholesaler importing the firm's product from the foreign market. In contrast, in our modeling we consider two kinds of gray marketing importers: a wholesaler and a segment of domestic consumers who choose to individually import the product, say, via Internet purchase. The wholesaler has monopolistic power and the consumers are price takers. Both type of importers act reactively to Manufacturer's prices. Furthermore, rather than focusing on consequences of vertical distribution structures, we center on the effects that downward consumer leakages have on the mixed exogenous and endogenous Price Discrimination strategy employed by the manufacturer. We constructed several games with and without manufacturer's foresight. We identify parsimonious price strategies rules based on related parameters composites, clarifying conditions under which the manufacturer may (or may not benefit) from the new pattern of parallel import. Among the results, intuitively expected an increase in leakage rates from manufacturer demand or in marketing and production costs at any market lower the manufacturer's profit. However, the effects on price strategies are not always intuitive. E.g., we show that under relatively insensitive leakage rates (in price gaps) and other plausible model assumptions, the manufacturer pricing may be relatively insensitive to wholesaler price. We derive conditions under which as a result of a decrease in the cost of Internet shopping or in the production and marketing cost in some market, the manufacturer should increase or decrease its optimal price mix.

■ TA16

Galiano

Direct Marketing and Targeting

Chair: Hao Zhao, Associate Professor, Cheung Kong Graduate School of Business, Oriental Plaza 3/F, Tower E3, 1 East Chang An Avenue, Beijing, BJ, 100738, China, hzhao@ckgsb.edu.cn

1 - Direct Marketing on a Network

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Direct Marketing (DM) - sending promotional messages to individual customers - is increasingly used by marketers as a result of the explosive growth in the availability and ease of use of customer databases. Current methods to calculate optimal budgets for such DM campaigns consider customers in isolation and ignore the well-known effect of word-of-mouth communication (WOM). When the customer base forms a network - as is the case in telecom or social network databases - ignoring WOM clearly leads to suboptimal DM budgets. In this paper, we develop a model to help address this challenge. First, we assume that firms know the network structure formed by customers but do not know individuals' connections. Under this scenario, we compare the optimal campaign of a monopolist to that of competing firms. We identify situations under which competing firms send more or less messages than a monopolist would as a function of the network's connectedness, the strength of WOM, the cost of the campaign and the intensity of competition between firms. In a next step, we explore the case when competing direct marketers know individuals' position in the network. Interestingly, we find that, whereas targeting is more efficient in this case, competing firms may be worse off than under "blind" targeting as they have strong incentives to target the same customers, hence increasing the intensity of competition.

2 - Service Pricing Strategy: Does Better Targeting Always Improve Profitability?

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In select service industries (e.g., travel, arts, and entertainment), the B-to-C business over the Internet is on the rise with industry estimates of total revenues over $10 billion. Many consumers now purchase a variety of such services online – for example, customers can now view seating charts and purchase tickets for Broadway performances much more widely than a few years ago. Clearly, access via the Web facilitates consumers' time management and improves their purchase experience. In this paper, we argue that such access may also benefit the service provider by helping him target the various customer segments more effectively. To highlight this issue, we develop a mathematical model that accounts for consumer heterogeneity and examine alternative ways by which the service provider can reach different types of consumers. We endogenously determine the costs associated with different targeting mechanisms and derive the optimal pricing strategy for each; subsequently, we compare the results across the settings and identify conditions favoring the use of one mechanism over another. Some directions for further work are also identified.

3 - Detecting Promising Categories for Targeted Promotions

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Marketing managers of companies that offer a broad range of product categories, such as traditional offline and online retailers, are interested in better understanding the interdependency structure among products or categories that are purchased jointly by their customers. Traditionally, insights into cross-category dependencies and corresponding marketing-mix effects are of particular interest for optimizing the overall profitability of retail category management. This interest is further fuelled by opportunities offered by the Internet or modern customer loyalty programs using smart card technologies. Today, click-stream as well as behavioral data is readily available for an increasing number of companies. We present a decision-support tool that assists direct marketers in selecting subsets of promising categories from the large assortment they typically offer for inclusion in targeted promotions. While in a traditional environment, the focus was limited to segment-specific initiatives, the Internet makes it easier as well as cheaper for companies to serve segments of size one, resulting in "real"one-to-one communications. The proposed analytical approach combines conventional wisdom of market basket analysis in a novel two-stage procedure. For deriving segment-specific promotions at the product category level, this procedure takes both interdependencies in purchase behaviour across categories and customer heterogeneity with respect to cross-category effects in response to marketing actions into account. Finally, we outline to empirically evaluate the recommendations derived from the proposed methodology vis-á-vis alternative approaches in a controlled field experiment that is planned in cooperation with a major online grocery retailer.

4 - Compensating a Risk-Averse Agent for Conducting Direct Mail Campaigns with Adverse Selection

Hao Zhao, Associate Professor, Cheung Kong Graduate School of Business, Oriental Plaza 3/F, Tower E3, 1 East Chang An Avenue, Beijing, BJ, 100738, China, hzhao@ckgsb.edu.cn, Yong Cao

When conducting a direct mail campaign, a company often hires an agent to actually implement the mailing and data collection, and the company will compensate the agent for the services the latter offers. A typical example involves a bank that intends to conduct a massive direct mail campaign to solicit applications for its credit products. As in a typical principal-agent problem, adverse selection has long been recognized and demonstrated empirically as a major factor that the principal should take in account when designing the compensation contract. Adverse selection in the context of a bank means that a prospect with poor credit worthiness is more likely to respond to the mail offer of certain financial product. Therefore, if the bank compensates the agent based on only how many responses are generated by a mail campaign, the bank may end up with a lot of unqualified applicants for its product. On the other hand, if the compensation is based on how many applications are approved, the bank is likely to be better off. The objective of this paper is to identify conditions appropriate

for different compensation methods. We first set up an analytical model to identify the optimal compensation contract in the presence of adverse selection, and then we use a proprietary dataset to actually demonstrate how the contract looks like. For the analytical model, we consider a firm who hires an agent to conduct a direct mail campaign. The agent possesses a list of names of prospects. The agent designs a mail offer and sends it to the selected prospects on the list. The agent will forward any responses to the firm, and then the firm will process these responses for final approval. Finally, the agent will get compensated according to the contract.

■ TA17

Pavilion D

Meet The Editors

1 - Meet the Editors

Editors of leading journals for marketing academics will present their editorial policies and perspectives. The following editors are represented:

Journal of Retailing - Praveen Kopalle
Management Science - Jagmohan S. Raju
Quantitative Marketing and Economics (QME) - Peter Rossi
Marketing Letters - Randolph E. Bucklin or Joe E. Urbany

Thursday, 3:00pm - 4:30pm

■ TB01

Junior D

Static and Dynamic Equilibrium Models

Chair: Sanjog Misra, Associate Professor of Marketing and Applied Statistics, William E. Simon School of Business Administration, University of Rochester, 110 S Carol Simon Hall, Rochester, NY, 14627, misra@simon.rochester.edu

1 - A Larger Slice or a Larger Pie? Investigating Bargaining Power in the Distribution Channel

Michaela Draganska, Stanford, draganska_michaela@gsb.stanford.edu, Daniel Klapper,
Sofia Villas-Boas

This research aims to provide insights into the determinants of channel profitability and the relative power in the channel by considering consumer demand and the interactions between manufacturers and retailers in an equilibrium model. In a departure from the standard empirical channel literature, which assumes that manufacturers set wholesale prices unilaterally, we explicitly model the negotiations between manufacturers and retailers. We formulate a Nash bargaining game, which determines how margins are split in the channel. Equilibrium margins are thus a function of demand primitives and of retailer and manufacturer bargaining power. The bargaining power parameter is itself a function of retail and manufacturer characteristics such as firm size and service level. Applying our model to the German ground coffee industry, we find that size is a key driver of bargaining power. We conclude that the growth in retailer size over the past decade may indeed have strengthened the hand of retailers.

2 - Tipping and Concentration in Markets with Indirect Network Effects

Jean-Pierre Dube, GSB, Chicago, jdube@chicagogsb.edu, Gunter Hitsch, Pradeep Chintagunta

This paper develops a framework to measure "tipping" – the increase in a firm's market share dominance caused by indirect network effects. Our measure compares the expected concentration in a market to the hypothetical expected concentration that would arise in the absence of indirect network effects. In practice, this measure requires a model that can predict the counter-factual market concentration under different parameter values capturing the strength of indirect network effects. We build such a model for the case of dynamic standards competition in a market characterized by the classic hardware/software paradigm. To demonstrate its applicability, we calibrate it using demand estimates and other data from the 32/64-bit generation of video game consoles, a canonical example of standards competition with indirect network effects. In our example, we find that indirect network effects can lead to a strong, economically significant increase in market concentration. We also find important roles for beliefs on both the demand side, as consumer's tend to pick the product they expect to win the standards war, and on the supply side, as firms engage in penetration pricing to invest in growing their networks.

3 - Bayesian Estimation of Discrete Games

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A growing empirical literature in marketing and economics uses discrete choice models that allow agents' choices to affect the payoffs of other agents. The earliest and most common applications include firms interacting in competitive environments, where firms' profits are affected by the decisions of other firms. Recent work also considers interactions between consumers, where consumers' utilities are functions of other consumers' choices. When agents' choices are affected by those of other agents, a role for equilibrium arises, so researchers have turned to empirical methods for discrete games. In this paper, we introduce a Bayesian inference approach for estimating discrete games of complete information. In this method, we use data augmentation to simulate latent payoffs that reflect pure strategy Nash equilibria. Typically, there is a potential for multiple equilibria in such games. We develop a rejection algorithm to deal with multiple equilibria. The approach is particularly useful for games without analytical solutions for the likelihood and allows the researcher to select between a variety of different approaches for handling multiple equilibria, including imposing the researchers own prior beliefs about equilibrium selection. We currently validate the approach using Monte Carlo simulations for games with two and three players, but the approach can be applied to games with more than three players as well.

4 - El Peso Doble: Double Couponing in the Supermarket Industry

Sanjog Misra, Associate Professor of Marketing and Applied Statistics, William E. Simon School of Business Administration, University of Rochester, 110 S Carol Simon Hall, Rochester, NY, 14627, misra@simon.rochester.edu, Sagit Harel-Tal, Paul Ellickson

Manufacturers offer coupons to spur demand for their brands. The widely prevalent use of such coupons has made the study of this marketing tool a popular topic of academic research over the past few decades. One aspect of couponing which has received little attention in the literature is the use of double coupon (DC) strategies by retailers. Stores that use this strategy generally double the face value of the manufacturer's coupons, and bear the extra cost themselves. There has been rather limited research that investigates this practice. Using a unique dataset on every supermarket in the US we construct a framework that captures various facets of a chain's decision process. First, chains may choose to adopt a centralized policy (across all stores) regarding whether or not to double coupons. Alternatively, they may give their stores a free hand and allow each one to independently decide whether or not to double coupons. In either case, there are a number of factors which go into the decision process, including, market (demand) factors, chain and store (supply) characteristics and competition. We bring these pieces together using a simultaneous move, discrete game of incomplete information that models the strategic choice made by stores regarding double couponing. Our results document the relative importance of the various components that drive the adoption of a DC strategy and shed light on a popular practice about which little is known.

■ TB02

Junior C

Marketing and Financial Performance I

Chair: Shuba Srinivasan, Associate Professor, Anderson Graduate School of Management, University of California, Riverside, CA, 92521, United States of America, shuba.srinivasan@ucr.edu

1 - Dynamic Marketing Mix Allocation for Long-term Profitability

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The ability to identify customers' dynamics, and its drivers, present an opportunity for firms to optimize their marketing resource allocation and increase long-run profitability. Accordingly, in this research, we address the following managerial questions: (1) how can firms dynamically segment their customer base? (2) what are the short- and long-term effects of marketing activities? and (3) how should firms allocate and target their marketing resources to maximize long-term profitability? To address these questions we propose a non-homogeneous hidden Markov model that captures the dynamics in customer behavior and the enduring effect of marketing actions. To optimally allocate marketing activities, we formulate a dynamic programming approach which takes into account the evolution of customers' behavior. We apply the model in the context of pharmaceutical marketing. We identify three prescription-behavior states, a high degree of physicians' dynamics, and substantial long-term effects for detailing and sampling. Specifically, detailing is most effective as an acquisition tool, whereas sampling is most effective as a retention tool. Our dynamic marketing allocation approach suggests that the firm could increase its profits by as much as 80%, while decreasing its marketing efforts by 26%. Our integrative framework provides important implications for managing customers and maximizing long-run profitability.

2 - Pre-release Forecasting Using Online Virtual Stock Markets

Natasha Z. Foutz, Assistant Professor of Marketing, Robert H. Smith School of Business, University of Maryland, College Park, MD, 20742, nfoutz@rhsmith.umd.edu, Wolfgang Jank

Pre-release forecasting of demand for new products is crucial for allocating limited marketing resources and is one of the most challenging tasks facing decision makers. To address this long-standing challenge, many innovative approaches have been proposed in the past. Recently, the emergence of online virtual stock markets (VSMs) has presented new opportunities for making dynamic and possibly more accurate forecasts. In this study, we present a novel approach for analyzing VSMs, via functional shape analysis (FSA). In essence, this approach characterizes important features of heterogeneous VSM price histories using only a small number of distinguishing shapes (e.g. trending up or down; last-moment velocity spurt). These shapes carry important information about demand and thus provide accurate pre-release forecasts. We illustrate our approach in the context of pre-release forecasting of release-weekend revenues of motion pictures, and assess its performance using movie-by-movie cross validations. The results show that the proposed method is capable of improving forecast accuracy over several traditionally used approaches and alternate methods for characterizing trading histories. These improvements persist, and magnify, when FSA is applied to derive early forecasts, long before the product release. This research also reflects an attempt toward demonstrating potential applications of virtual stock market data, as an increasingly important tool, in Marketing research and decision making, and applications of functional data analytical approaches to investigating a wider array of Marketing topics.

3 - Marketing Spending and the Volatility of Revenues and Cash Flows

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While effective marketing spending is known to improve a brand's financial performance, it can also increase the volatility of performance, which is not a desirable outcome. This paper analyzes how revenue and cash-flow volatility are influenced by own and competitive marketing spending volatility, by the level of marketing spending, by the responsiveness of own marketing spending, and by competitive reactivity. We develop hypotheses about the influence of these variables on revenue and cash-flow volatility that are rooted in market response theory. Based on a broad sample of 99 pharmaceutical brands in four clinical categories and four European countries, we test these hypotheses and assess the magnitude of the different sources of marketing-induced performance volatility. The results support our hypotheses and demonstrate that effective marketing may incur negative financial side effects such as greater financing costs or higher opportunity costs of cash holdings. Thus common volatility-increasing marketing practices such as advertising pulsing are effective at the top-line, but may turn out to be ineffective at the bottom-line.

4 - The Effects of Pharmaceutical Direct-to-consumer Advertising: A Shareholder's Perspective

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In recent years, attention of marketing has shifted from sales and market share as performance metrics towards shareholder value. In this paper we focus on shareholder value to shed light on the seemingly contradictive investments in pharmaceutical direct-to-consumer advertising (DTCA) by drug manufacturers. DTCA is known to have only moderate effects on brand sales and market share. Yet, vast amounts of money are invested in DTCA. We develop a two-stage methodology that allows us to assess the effect from DTCA on three components of shareholder value: stock return, systematic risk and idiosyncratic risk. In the first-stage we estimate all three components of shareholder value by means of (importance-sampling based) Kalman filtering, and in the second stage we explain these estimates by several variables using two-stage least squares. The second-stage results not only allow us to assess the effect from DTCA on all three components of shareholder value, but also to compare the effects from DTCA to those from other marketing expenditures, typically directed to physicians. The outcomes of our study may have important consequences for drug manufacturers seeking to optimally allocate their marketing budgets as well as for scholars in the field of pharmaceutical marketing. As a general conclusion, this paper's insights can guide finance and marketing managers, who are assigned with the task of shareholder value creation, in terms of resource allocation towards direct-to-consumer advertising.

■ TB03

Grand D

Bidding Behavior in B2B and B2C Online Auctions

Chair: Sandy Jap, Associate Professor of Marketing, Emory University, 1300 Clifton Road, Atlanta, GA, 30322, United States of America, sjap@emory.edu

1 - The Impact of Promotional Messages During Auctions

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Auctioneers often use promotional messages during live and internet auctions, which are intended for bidders and potential bidders. Although the impact of marketing actions taken before auction bidding starts has been studied, the impact of in-auction messages on bidder behavior and prices, and the strategy that auctioneers use to decide when to issue these messages and which kind of message to issue, have not been studied. We propose and test a model of these messages which has three features. First, we distinguish between "informational messages" that convey to auction participants information concerning the item being auctioned and "urging messages" that urge people to bid higher or join the auction. Second, we propose that auction messages influence final auction prices through a dual-path system. They can directly increase auction prices by increasing the valuations of bidders already in the auction, and indirectly increase prices by attracting more bidders, which also increases expected auction prices by using the number of bidders as a mediating mechanism. Third, we propose that the auctioneer's decision on when to issue messages depends on past events and messages in the auction. Thus, the model reflects an interactive feedback approach, where past messages influence auction prices and the number of bidders in the auction, while past bidding behavior, number of bidders, and messages influence current messages. We propose testing the model using a dynamic framework that simultaneously studies the interactive impact of messages on consumers and consumer behavior on messages. We test the model using data from real-time internet auctions of airline tickets held by Air France that typically lasted less than 15 minutes, during which auctioneers issued messages. The results support the proposed model and associated hypotheses. We also propose that such a model has applications to other situations, such as during online video games, where marketers can issue interactive messages during consumer experiences based on information collected in real time.

2 - The Effects of Consumer Perceptions of Price Unfairness on Auctions and Posted Prices for Online Selling

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We study the practice of operating posted-price and auction channels in parallel on the Internet. Toward this end, we develop a model of channel configurations that incorporates consumer perceptions of price unfairness and consumer heterogeneity in channel preferences. Both factors play important roles in the firm's channel configuration decisions. By jointly managing posted-price and auction channels on the same platform, firms achieve efficiency in terms of extracting consumer surplus, which can compensate for the loss of profits due to consumer perceptions of price

unfairness in the posted-price retail channel. However, consumer loyalty to the posted-price channel limits the firm's ability to leverage the auction channel. Therefore, simultaneous use of posted-price and auction channels can help a firm achieve higher expected profits but only in some cases. If it adopts auctions, the firm should adjust the posted price in a dual channel case to make it higher than the optimal price in a single retail channel.

3 - Bidding Strategies in Buyer Determined Online Auctions

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The growing use of business-to-business online reverse auctions has produced a new type of auction, one in which the lowest price bidder is not necessarily guaranteed to be the winner and the buyer has full latitude to select the winner from any of the qualified bidders. What are the strategies of bidders in these types of auctions? Using an adaptive hierarchical bounded rationality framework and point-by-point bid data from ten lots of industrial reverse auctions, we find that bidders incorporate quality information from competitive bids over the course of the auction; that is, suppliers not only adjust their bids for their own quality-advantage or disadvantage - they also account for opponents' perceived quality differences. We are able to make several contributions to our understanding of bidding behavior in dynamic procurement auctions. (1) We propose a theoretical framework to characterize dynamic bidding behavior with hierarchical boundedly rational agents. (2) We propose and estimate an econometric model that follows our theoretical framework and applies a mixture model approach to account for different hierarchies of rationality. We are able to show that suppliers are sensitive to competitors' qualities implied by their bids. (3) We study artificial adaptive agents using our estimated parameters and qualities to make recommendations regarding optimal auction formats.

4 - BidAnalyzer: A Method for Estimation and Selection of Dynamic Bidding Models

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Online reverse auctions generate real-time bidding data that could be utilized via appropriate statistical estimation to assist the corporate buyer's procurement decision. To this end, we develop a method, called BidAnalyzer, which estimates dynamic bidding models and selects the most appropriate of them. Specifically, we enable model estimation by addressing the problem of partial observability, i.e., only one out of N suppliers' bids is realized and the other (N-1) bids remain unobserved. To address partial observability, BidAnalyzer estimates the latent price distributions of bidders by applying the Kalman filtering theory. In addition, BidAnalyzer conducts model selection by applying multiple information criteria. Using empirical data from an automotive parts auction, we estimate several dynamic bidding models and assessing its predictive performance in out-of-sample events. The resulting one-step-ahead price forecast is accurate up to 2.95% median absolute percentage error. Finally, we describe recent efforts to validate BidAnalyzer in the marketplace as a device for price discovery in online reverse auctions.

■ TB04

Port Alberni

Word-of-Mouth in Online Environments

Chair: Melanie Dempsey, Assistant Professor, Ryerson University, TRSM, 350 Victoria Street, Toronto, ON, M5B2K3, Canada, mdempsey@ryerson.ca

1 - Managing Online Social Interactions: Sales Impacts of Observational Learning vs. Word-of-mouth

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When making purchase decisions, consumers can be influenced by social interactions in at least two ways: (1) affected by other consumers' opinions (i.e., via word-of-mouth communication, WOM), and (2) affected by other consumers' actions (i.e., via observational learning, OL). Recent advances in technology are making it possible for sellers to directly manage such social interactions. This calls for a better understanding on how the two different types of social interactions, OL and WOM, affect consumer purchase behavior. This paper first develops theoretical propositions on three essential issues for firms to manage online social interactions: (1) whether and how OL and WOM create different effects, (2) how these effects vary over product lifetime, and (3) how OL and WOM interact with each other to jointly influence sales. Based on a unique natural setting at Amazon.com resulted from its policy changes, three longitudinal, quasi-experimental field studies are investigated to test these propositions. These studies lead to several interesting results. First, OL and WOM have different effects on product sales. Specifically, while negative WOM information has a greater impact on sales than positive WOM information, the sales effect is significant only for positive OL information but not for negative OL information. Second, the impacts of both types of social interactions are diminishing over product lifetime. Third, there exists a significantly positive complementary effect between OL and WOM volume. These findings provide theoretical and managerial implications on firms' management of social interactions.

2 - Cognitive, Affective, and Behavioral Reactions of Consumers to Online Word-of-Mouth

Iris Gorodesky, PhD Student, Tel-Aviv University, Hanasi Harishon 41/13 St., Rehovot, 76303, Israel, irisg@post.tau.ac.il, Yoav Ganzach

Word-of-mouth (WOM) affects both business success and consumer purchase decisions. The exponential growth of the Internet has turned the WOM process into one of the most powerful interpersonal communication means in our society today. Internet users are capable of reaching an unlimited number of other Internet users. Thus, consumers make offline decisions based on online information. In this study we investigate the attitudes of consumers to the communicators of online WOM and the effect of those attitudes on their purchase intentions. The findings of Study 1 reveal that the valence of WOM influences the attitude toward the WOM communicator. It was found that in positive online WOM, consumers tend to like the communicator more, but put less faith in him. On the other hand, in negative online WOM, consumers like the communicator less, but tend to put more faith in him. Both the liking of and faith in the communicator of WOM affect purchase intentions. Study 2 strengthens these findings and is based on real products with two kinds of quality (good or bad movies) and preconceived opinions of consumers about them.

3 - Why Consumers Voluntarily Provide Service Feedbacks Online

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The importance of word-of-mouth communications has long been recognized by marketers, much information being communicated is sensitive yet difficult for companies to control and monitor, especially online. Because such information serves as independent opinions away from the influences of companies, it could be more appreciated by consumers who are often facing much propaganda-typed advertisements. Within the service and communication literature, few earlier researches have focused on this issue; fewer have paid attentions to those consumers who voluntarily offered their own service feedbacks online. Following the tradition of consumer cultural research that works closely with real consumers in the actual market place, this current study established direct contacts and dialogues with consumers who offered feedbacks through a major Chinese hotel booking service provider online. Through data generated with in-depth interviews and story-telling methods, the study has uncovered strong consumer desires to influence peer consumers; to receive attentions from service providers especially on negative experiences; and to share joys of a positive hotel experience. These consumers also regard such information as one of the most important sources and criteria to make selecting decisions when booing an unfamiliar hotel online. The finding of this study should attract serious attentions from service marketers; it highlights the importance for businesses to deal with consumer opinions and feedbacks that did not return to them directly. It also provides implications for online booking agents to encourage users to share their opinions and feedbacks for its essential role in attracting and convincing more customers to choose their booking services.

4 - Most Emailed News: Viral Characteristics of Text-based Online Content

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An underlying factor for the rapid emergence of viral marketing to a $150M industry is the trend of internet users increasingly sharing online content with one another. While some viral campaigns have been very successful in creating instantaneous buzz (e.g., Burger King's subservient chicken mini-site), not all online content is equally "viral". For viral marketing to work there has to be something unique about the message that motivates the reader to pass this information on to others. Despite the fact

that understanding the viral characteristics of potential WOM messages is critical to developing effective communication strategies, there currently is only a limited understanding of this phenomenon. This research project attempts to identify the characteristics of online content that causes a message to be passed-along/forwarded/emailed more often than other. Specifically, our project focuses on online news, which is one of the major categories of online content that is frequently forwarded by internet users. We conduct a content analysis of individual news stories released in June/July 2007. Several commonly used persuasion tactics in traditional advertising, such as the presence of celebrities, credibility of the source of the message, and emotional tone are specifically identified. By comparing the characteristics of daily most emailed news to those never being forwarded/emailed, we attempt to identify so-called viral characteristics - the characteristics that would increase the probability of the news story being forwarded. Managerial implications and future research directions are explored.

■ TB05

Grand C

New Product Diffusion-Applications

Chair: Yutaka Hamaoka, Professor, Keio University, 2-15-45 Minato-ku, Mita, Tokyo, 183-8345, Japan, hamaoka@fbc.keio.ac.jp

1 - The Takeoff of Green Technologies: An Historical Analysis of Timing and Affecting Factors

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In the last decades the uncontrolled impact of industrial activities on the natural environment has created critical ecological concerns. Although companies have many options to reduce the environmental impact of their activities through product design and technologies, their initiative is often stifled from the evidence that market entrances of green products tend to be difficult, slow and highly requiring. The aim of this research is to explain the diffusion problems of green technologies through the lens of technological dominance. According to this literature "technological change can be fruitfully characterized as a socio-cultural evolutionary process of variation, selection and retention" (Anderson and Tushman, 1990) through which a dominant technology finally emerges. This process of selection is shaped by social, political, and organizational dynamics acting both at industry and firm level. Being green technologies disruptive innovations in each industry in which they are implemented, their full acceptance is subordinated to the repeated interaction of firm capabilities, managerial willingness, institutional rules and competitive dynamics. The present study investigate this era of ferment in the diffusion of environmental technologies through the analysis of the time to takeoff needed by a new product incorporating environmental technologies, and through the identification of systematic pattern in the interaction among evolutionary forces. Hypotheses have been tested through data from three industries characterised by a high degree of technological innovativeness and environmental impact.

2 - Revisiting the Product Life Cycle Concept: Lessons From Diffusion Research

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The Product Life Cycle (PLC) model has been a prominent marketing strategy and planning tool for over 30 years. As a managerial tool, strategic insights are largely derived from the expected overall sales pattern and competitive dynamics. We argue that additional useful managerial insights can be gained by paying more attention to consumer dynamics. We draw on the substantial body work in the area of diffusion models. However, rather than focusing on forecasting sales we examine the changes in patterns of consumer purchases over the PLC. Confining our attention to consumer durable products sales are dominated by adoptions by innovative consumers (Innovative Phase), adoptions by majority consumers (Majority Phase), repeat purchases (Repeat Phase) and a choice between the incumbent and a substitute product (Substitute Phase) respectively. This leads to an enhanced four-phased PLC model based on the dominant underlying consumer trends: Innovative, Majority, Repeat, Substitute. Over the PLC, The model is operationalized by combining several diffusion models. Consequently, new marketing strategy implications emerge for the PLC. An empirical illustration of the enhanced PLC model is presented for televisions, VCRs, clothes dryers and dishwashers.

3 - Time-Varying Marketing Mix and Entry-Timing Analysis: The US Automotive Market Over Three Decades

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In this study, we investigate the implications of new product adoption pattern on the performance of competing brands in the context of three distinct categories of the US automotive industry over a period of three decades. An analysis of market shares using generalized additive models with time-varying coefficients yields a number of insights about firm strategies on entry timing and marketing mix allocation in new product markets. We find that during the early days of the considered automotive categories, competitors may have to rely more on a price penetration strategy and their distribution force rather than on short-term effects of their advertising campaign. However, when demand for the new product increases, advertising effectiveness increases steadily whereas the impact of price and distribution on market share is gradually reduced. Therefore competitors may benefit more from advertising and less from lowering their prices or boosting their distribution in attracting market share. As to entry-timing effects, we find that order-of-entry penalties start accumulating only when the demand for the new product intensifies, thus providing competitors with a leniency period to enter a new market. The analyses also show the importance of disentangling company- and brand- specific order-of-entry effects when companies launch more than one product in the same category. These results are corroborated further by a regime-switch analysis which suggests that the optimal change point for parameter estimates is around the take-off point for the considered categories.

4 - Users as Co-Creators

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Linux, Wikipedia, etc. are well known successful cases of collaborative work of crowds on the Internet. In these cases, consumers are not just consuming/reading contents. Some of them are helping each other, others are contributing to creation process. This study investigates how a consumer turns into a co-creator in open source software communities. Hazard model is applied to individual level. Our analysis shows not only individual level variables: skill and earliness to join community, but also community level variables: social network indexes, explain duration to be a developer.

■ TB06

Grand B

Entertainment Demand

Chair: Yong Liu, Assistant Professor of Marketing, University of Arizona, 1130 E. Helen Street, Tucson, AZ, 85721, United States of America, yoliu@eller.arizona.edu

1 - Spatial and Temporal Effects of a Performance Schedule on Event Ticket Sales

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Scheduling a series of performances is an important decision that faces event marketers. When and where to schedule these performances can have significant effects on overall ticket sales. Existing research has attempted to model the drivers of ticket sales, however, it has not directly addressed the impact of the performance schedule. In this paper, we specifically model the effect of a performance schedule on ticket sales. For each performance, we measure its average spatial and temporal distances from other performances in the schedule and model their effects on ticket sales. Specifically, we focus on total ticket sales for each performance as well as the timing of these ticket purchases. We propose a three-component model that integrates a model of overall ticket sales, purchase timing and a non-random scheduling decision. In our model, total ticket sales is a function of performance characteristics and scheduling characteristics (e.g., spatial and temporal measures). We model the timing of ticket purchases as a Weibull hazard process with covariates that capture scheduling characteristics and performance attractiveness. The possibility of non-random scheduling decisions is accommodated in the third component of the model. We apply our model to ticket sales associated with a single event with 70 scheduled performances across the greater New York metro area.

2 - The Impact of New Attractions on Theme Park Attendance
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Theme parks regularly invest huge amounts in new park attractions to increase visitor attendance. In spite of the extraordinary investments involved, little is known to what extent these attractions really boost visitor numbers, nor how long these visitor gains (if any) materialize, precluding an effective cost benefit analysis. Moreover, little is known how a new attraction's effectiveness is linked to its underlying type (we distinguish between thrill attractions and themed attractions), and/or to how the effectiveness of the new attraction interacts with the effectiveness of existing attractions and future introductions. To address these issues, we present a new model. A nice feature of the model is that it allows for a decomposition such that for each individual attraction, the number of additional theme park visitors attributable to that attraction can be estimated for each point in time, possibly years after it has been opened. The model is calibrated on twenty-five years of weekly attendance data for a large European theme park.

3 - Modeling the Impact of Advertising on Event Ticket Sales
Moon Young Kang, PhD Student, University of Wisconsin-Madison, 975 University Ave, 4260 Grainger Hall of Business, Madison, WI, 53706, United States of America, mkang@bus.wisc.edu, David Schweidel, Neeraj Arora

Event ticket sales can often be divided into two different periods, a restricted period in which only bundled tickets (e.g., season tickets for sports, subscription packages for the arts) are available followed by an unrestricted sales period in which both bundled tickets and individual tickets can be purchased. In forecasting ticket sales, organizations must consider a number of factors including the interdependence in tickets sales between the restricted and unrestricted sales periods, the similarity in the attributes of the individual events, and the impact and timing of different types of advertising. In this research, we develop a multivariate duration model that uses aggregate sales data and incorporates these factors to forecast event ticket sales at a performing arts center. Consistent with the product diffusion literature, we allow for latent groups of customers. We also permit differential effects of advertising based on the media (print, radio, and television) and timing across these latent groups. Lastly, we incorporate attributes of the performances, as those performances with greater similarity among the attributes may exhibit similar sales patterns. We assess the performance of our proposed model using calibration periods of varying lengths to determine how far in advance we can forecast sales of upcoming events, as well as compare the performance of our model to benchmark models. To demonstrate the applicability of the modeling framework, we show how it can be used to derive metrics such as the ROI of advertising in different media and at different times.

4 - Network Externality and Consumer Evaluation of New Products: Evidence from Online Gaming Industry
Yong Liu, Assistant Professor, University of Arizona, 1130 E Helen Street, Tucson, AZ, 85721, United States of America, yoliu@email.arizona.edu, Jun Yang, Enping Shirley Mai

This paper examines network externality and consumer evaluation of new products in the online video gaming industry. Different from past research that has employed aggregate data and thus had to cope with potential confounding factors for network effects, individual data are utilized to establish network externality at the utility level. Moreover, network externality has been mostly treated as a static phenomenon in the literature. This study discusses and tests possible dynamic patterns of network externality over the product life cycle. Our findings show that, after controlling for product attributes and other variables that could contribute to the utility of a product to consumers, the size of the installed base significantly enhances individual consumer's evaluation of online video games. However, this effect exhibits an inverse U-shaped pattern across the product life cycle. We also find evidence that early adopters of new products tend to give higher evaluation of the product than later adopters, and consumers tend to inform others about their evaluation of the product fairly soon after purchase. These findings suggest that promotional activities are critical in stimulating early sales before the effect of network externality can kick in to help diffusion. Moreover, rather than introducing new products fully loaded with all innovative features, firms could adopt a sequential approach to enhance product features gradually.

■ TB07

Grand A

Applied Choice Models

Chair: Neeraj Arora, Associate Professor, UW-Madison, 975 University Ave, Madison, WI, 53706, United States of America, narora@bus.wisc.edu

1 - Soaps, Roles & Social Status: Interpersonal Influences Among Mexican TV Viewers
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Contrary to some common beliefs, television is alive and well, not only in the U.S.(where it retained a 32% share of advertising expenditures in 2006) but especially around the globe. In the Latin American market, Brazil and Mexico alone account for more than US$ 4 billion in TV advertising expenditure per year. And yet we know very little about how consumers outside North America relate to this high-penetration, high-impact medium, and major economic engine. Our study focuses on the television prime time in Mexico, a time slot dominated by a highly concatenated, limited duration, and wide appeal type of soap-operas: the so-called "telenovelas" - a practice that is in stark contrast with strategies in the better researched US market. In a country with relatively large households (3.5 people on average in 2006, compared to 2.6 in the U.S.) and a collectivistic culture, the special characteristics of telenovelas help create an excellent setting to investigate interpersonal influences. How one individual influences another's choices in television viewing has only recently begun to be incorporated in econometric modelling, despite its arguable relevance for consumer decision making and for marketing strategists. We analyze a rich people-meter data set from an internationally audited operation in Mexico, which includes household, individual, and program characteristics. Building on recent work (e.g., Yang et al., 2005) we study the interdependence between women and other household members in television viewing choices, with special focus on the moderating effects of socioeconomic level and women's roles in the household.

2 - A Choice Model with Endogenous Social Effects and Application to MBA Student Internship Preferences
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Changing technology and demographics make it important to study social effects. Similar behaviors observed in a group may be explained by three distinct causes: endogenous, contextual, and correlated effects (Manski 1993). Endogenous effects arise when one responds to average group decision. Existing management literature demonstrates social effects in a close relationship in which group members have complete information regarding peers' decisions. This paper studies social effects in a larger group with incomplete information. We adopt a game-theoretical framework based on a random utility model proposed by Brock and Durlauf 2002. We follow Hotz and Miller's two-stage estimation approach, and use spline nonparametric method to estimate choice probability, and empirical Bayes to estimate hierarchical parameters. We apply the model to studying Cornell MBA summer job preferences. Specifically we answer two empirical questions. Do endogenous social effects exist? How does strength of social effects differ along dimensions of individual characteristics? We find that endogenous social effects exit in a business school. Furthermore, female students have higher social effects. Students with longer work experience and higher GMAT quantitative scores have lower social effects. Our results inform business school educators about different responses to social effects among MBA students in choosing employers. We provide evidence to policy makers that it can be effective to integrate social networking methods in policy implementation.

3 - Allocation of Search Time to Information Sources for Automobile Purchase
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People consult various sources, including the Internet, in order to search for information preparing for the purchase of automobiles. The contents of information from those sources are markedly differentiated and therefore potential buyers typically allocate their time to more than one information source depending on their distinct needs and backgrounds. Little has been known about who uses which sources how much in gathering information for automobile purchase. We develop an econometric model derived from

a conceptual framework that begins with consumers' optimizing behavior in determining how many media are used and how much time is devoted to each source to be used. Using the model, we investigate the impact of consumer background variables on choosing information sources, measure the value of each information source in terms of marginal contribution to information flow, and examine perceived similarity and dissimilarity of information media in terms of their access cost. The model enables us to run the counterfactual where we look for the hypothetical pattern of time allocation without the Internet by eliminating the source and forcing the sample to reallocate their time to maintain the same level of return to search as that with the Internet. With the new equilibrium search time allocation, we test (1) whether the emergence of the Internet is likely to increase total search time and (2) how the Internet is being integrated with other product information sources, i.e., whether it steals share of time from other already-existing sources proportionally or not.

4 - Predicting Joint Choice Using Individual Data

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Choice decisions in the marketplace are often made by a collection of individuals or a group. While scholarship in marketing has done well to estimate preferences at the level of an individual, limited research studies the preference structure of a group. The biggest hurdle in measuring group preference is that it is often infeasible or cost prohibitive to collect data at the group level. The practical challenges in estimating joint preference raise an important research question: Is it possible to estimate joint preference without requiring individuals to convene as a group to provide joint choice data? Our objective in this research is to answer this question. We propose a novel methodology to estimate joint preference without the need to collect joint data from the group members. We merge experiments and statistical modeling to capture the psychological processes of preference revision and concession that lead to the joint preference. By removing the big hurdle of joint choice data collection, the methodology makes accurate assessment of joint preference feasible. We test our methodology by using data collected from an internet sample of parents and teens in the context involving a cell phone purchase. We compare our proposed model to a variety of other models to assess its relative performance. We show that the proposed model does a remarkable job of uncovering group preference by using only individual level data. We argue that our methodology is likely to work effectively in Business-to-Business as well as Business-to-Consumer contexts.

■ TB08

Port Hardy

Self Prediction, Control, and Need Satisfaction

Chair: Keri Kettle, Doctoral Candidate, School of Business, University of Alberta, Edmonton, AB, Canada, kkettle@ualberta.ca

1 - How Does Ego-Depletion and Construal Levels Relate to Self-Control?

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Researchers have offered many different theoretical models to better understand self-control. One such model is the ego-depletion model, where it argued that when an individual is depleted, subsequent attempts at self-control are more likely to fail (e.g., Baumeister, Heatherton & Tice, 1994). Another model of self-control, based on construal level theory, suggests that the use of high-level construals as opposed to low-level construals should facilitate self-control (Fujita, Trope, Liberman & Levin-Sagi, 2006). Although each theory makes main effect predictions, it is not clear how these variables interact to influence self-control. To clarify this theoretically important issue in consumer behaviour, we conducted two experiments that examined the relationship between ego-depletion and construal level on self-control. In the first experiment, we found that consistent with construal level theory, nondepleted participants showed more self-control when the self-control problem was described in high-level construals, relative to when it was described in low-level construals. However, depleted participants showed little self-control when the self-control problem was described in low-level or high-level construals. To understand why depleted participants showed poor self-control under both construal conditions, we designed a second experiment where we measured participant's current level of construal activation after the second self-control task. Using different manipulations of depletion and construal level, we replicated the findings of the first experiment and also found that depleted participants under both construal conditions were thinking in terms of a low-level construal. Combined, these two experiments suggest that ego-depletion is a construal level manipulation.

2 - Effects of Context, Gender and Consciousness on Avatar Choice in Virtual Environments

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One of the most commonly observed differentiation strategies used by virtual world (VW) organizers, online retailers, human networks and other business models is the provision of pre-defined avatars that represent users in virtual worlds and serve their needs. When avatars are consistent with users' intentional choice, users are more satisfied and this is likely to contribute to the success of, for example, a VW or online retailer (Wang et al 2007). The role of the user's virtual context motives (utilitarian or hedonic) and user consciousness (conscious or unconscious) in the decision-making process about choice of avatars are important research questions that have received little empirical attention in the literature. In this study we investigate the effects of hedonic and utilitarian context and gender on users' intention to choose an avatar, and further assess the moderating role of consciousness on this decision-making process. A laboratory experiment with 2x2x2 between-subject design: 2 types of contexts (between -subject) x2 levels of consciousness (between -subject) 2 gender (between -subject) with random assignment was conducted to test our hypotheses and to provide initial empirical support for the model. The results indicate that consumers will better respond to attractive avatars. More importantly, the findings provide preliminary evidence that online developers and marketers need to understand the condition and context being offered to the consumer, as well as the gender of its target market, to develop avatars that the targeted consumer group will find appealing.

3 - The Impact of Anticipation Duration on Experience and Retrospection

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Anticipation has been considered a source of utility (Loewenstein 1987). Indeed firms strive to enhance consumer anticipation prior to introducing a new product, a movie, a video game, to name a few. However, the underlying mechanisms of anticipation and their specific effects on the experience of the anticipated event are not known. To address these issues, we introduce the time factor to determine how anticipation duration affects experience and retrospective evaluations of consumption experience. We also enrich this understanding by examining the underlying process and two market-relevant factors that moderate this effect. We make a theoretical contribution by developing a rigorous framework to understand a novel dimension of anticipation - anticipation duration. Our study shows insights into managerial implications of product preannouncement decision timing.

4 - Self-Prediction in a Social Context: When "Overconfidence" Improves Performance

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Prior research suggests that people tend to make overconfident predictions about their own performance (Armor and Sackett 2006; Buehler and Griffin 2003). However, the relationship between such biased self-predictions and subsequent actual performance has not been examined to date. Building on Goal-Setting Theory (Locke and Latham 1990), we argue that self-predictions serve a self-motivating function and that (seemingly) overconfident predictions about one's own performance can have a performance-enhancing effect. We further hypothesize that, when individuals make self-predictions in a social context (i.e., in the presence of others), these predictions also serve an impression management function (see Baumeister 1982; Leary and Kowalski 1990) that interacts with self-motivation to produce contrasting effects on performance. When our eventual performance at a task is not observable by others, we tend to use self-predictions to signal our ability, and we appear overconfident. By contrast, when our performance is observable, we tend to use self-predictions to signal our modesty, and we appear less confident. In turn, these self-predictions act as goals that motivate our actual performance, and higher self-predictions lead to improved actual performance. The results of three experiments support our hypotheses. In Experiments 1 and 2, we demonstrate that such public self-predictions appear overconfident, but lead to higher actual performance when the latter is not observable by others.

Experiment 3 extends our finding to a context involving product choice and performance in an athletic task. Overall, we find that, when compared with past performance, self-predictions made in a social context appear overconfident, but they lead to higher actual performance.

■ TB09

Junior B

CRM-Customization and Customer Portfolio

Chair: Martin Boehm, IE Business School, Serrano 105, Madrid, Spain, martin.boehm@ie.edu

1 - Disentangling the Benefits of Product Customization

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In many markets consumers strive to satisfy individual desires and unique tastes, while at the same time seeking for the best value for money. As visionary answer to this challenge, the concept of mass customization was introduced already two decades ago. This strategy has gained practical relevance for firms only during the last 15 years with the availability of new manufacturing and information technologies. In the second half of the 1990's, mass customization has evolved as a business model for small internet-based new ventures. Since the general crisis of internet businesses, however, a new wave of mass customization companies is emerging as a group of established manufacturers with well known brands. These developments demonstrate that distribution channel and firm reputation seem to be of general importance to consumers in addition to more customization specific benefits. Leaving aside firm operation and resources, we focus on these consumer perceptions and benefits. The emerging body of consumer research on product customization has recognized that an explanation solely based on the benefit of improved preference fit may be too narrow. Our objective is to derive and test an integrated, attitudinal model of product customization, which takes into account holistic evaluations as innovative shopping mode. We want to disentangle the specific benefits of product customization from the more general perceptions of the supplier firm and the distribution channel as well as consumer dispositions. The model is empirically tested with customer survey data from an online retailer for customized wrist watches.

2 - Role of Marketing Efforts on Customer Value Creation Using a Customer-Mix Model

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Modeling approaches in CRM literature provide marketers with recommendations for optimal allocation of resources to create and sustain long-term profitable customer relationships (Rust et al.,2005; Reinartz et al.,2005). One stream of CLV research, namely scoring models in RFM tradition (Venkatesan-Kumar,2004), computes customer profitability on the basis on customers prior behavior. However this backward-looking approach is problematic since they lead to imperfect predictions of future revenue streams by ignoring customer retention, acquisition and expansion in the future. Probabilistic and econometric models in the CLV tradition (Fader et al.,2005) address this problem by assuming observed behavior as underlying stochastic processes governed by unobserved latent behavioral customer heterogeneity, thus predicting the customer churn patterns and lifetime profitability more accurately in a forward-looking approach. We provide an alternative approach for customer valuation by identifying customer groups using their current and expected transaction behavior. We implement a customer-mix model using McAlister et al.(2008) methodology with survey data, which allows us to evaluate the profitability of all potential customers who can be acquired in the future as not just the current customers. Even though the existing CRM literature looks at the role of marketing interventions on past purchase patterns, there is lack of research examining the impact of marketing mix in evolution of future customer base, on customers' future purchasing patterns and consequently on expected customer value. We also explore the likely impact of marketing communications, namely marketing media channel and distribution channel choice on expected profitability of customer base.

3 - Personalizing Customer Service in the Email Channel

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We present a personalization model of customer service in the email channel. Drawing on the notion that customers are different in their preferences for the way a firm°Øs customer service addresses their email or concern, we derive theoretically based propositions on the moderating effects of customer email characteristics in predicting customer satisfaction with the customer service. In personalizing customer service in the email channel, a firm may control its level of customer service by adjusting response time, response type, and response length at the individual level. Using a hierarchical Bayes approach, we develop a flexible model that allows for heterogeneity of customer preferences for the varying customer service efforts of a firm. Our empirical result shows that preference for customer service is highly heterogeneous, and that the heterogeneity of preference for customer service may be well understood by customer sentiment, reason for email, number of repetitive emails, and other customer characteristics. One important result from the moderating effects is that the influence of customer service on customer satisfaction varied significantly by customer sentiment. Further, in a holdout sample, we conducted validation test to compare the result of our model with that of competing models in explaining customer satisfaction. Our model outperformed other models in terms of predicting customer satisfaction. The empirical result shows our model can be used to significantly increase customer satisfaction by personalizing customer service in the email channel.

4 - Managing Customer Portfolios

Martin Boehm, IE Business School, Serrano 105, Madrid, Spain, martin.boehm@ie.edu, Jaime Romero, Anna Downarowicz

Most research on Customer Lifetime Value intends to estimate the expected value of an individual customer in order to provide guidance on marketing issues such as customer retention (Gupta et al 2006). Until now, these estimation methods focusing on the expected value of a customer relationship do not account for the differential risk across various customers (Hogan et al 2002). Thus, current CLV measurement practices might well predict that high-risk customers are more valuable than low-risk customers (Gupta et al 2006). Acting on this information, marketing managers will focus on retaining only high-risk customers and finally endanger the sustainability of their entire firm. This simple example illustrates that marketing managers should not only focus on the expected value of an individual customer, but instead consider the value and the risk of the entire customer portfolio when making customer retention decisions. Building upon the financial literature on portfolio optimization, we therefore propose an approach which maximizes the overall value of a customer portfolio and at the same time accounts for the firm's risk exposure. In a large empirical study we demonstrate that customer management decisions that take into account the entire portfolio lead to a more efficient composition of the customer base in terms of risk and expected value, in contrast to decisions which are entirely grounded on customer analysis at the individual level. The study further derives customer management recommendations aimed to maximize the value of a customer portfolio for a given risk level or to minimize risk achieving a given level of expected value.

■ TB10

Junior A

Issues in Competition Modeling

Chair: Bruce Clark, Associate Professor, Marketing, Northeastern University, 202 Hayden Hall, Boston, MA, 02115, United States of America, b.clark@neu.edu

1 - Predicting Competitors' Moves: The Value and Behavioral Antecedents of Predictive Accuracy

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Much has been written about the need for managers to accurately predict competitors' moves. However, few studies have empirically examined the performance consequences of predictive accuracy and the behavioral antecedents to predicting accurately. Consequently, it remains unclear whether investments in competitive prediction capabilities will pay off for firms, and if they will, then how firms can cultivate more accurate predictions. This study draws data from a strategy simulation and assesses partic--pants' ability to make predictions about their competitors' pricing, adver-

tising expenditure, number of product features, and technology type. The data show considerable variance in participants' predictive accuracy. But importantly, although predictive accuracy did not affect participants' near-term performance, teams that had higher accuracy scores eventually achieved superior performance than teams with lower accuracy scores. The data further reveal that predictive accuracy is related to participants' winning desire, which apparently serves as a motivator to be vigilant about competitor's moves. Also, teams that work in either a combinative or a collaborative manner tend to be more accurate in their competitive predictions than teams that work in a separate or sequential manner. Finally, some methods of making competitive predictions, such as extrapolating competitor's past actions, help improve predictive accuracy, whereas others, such as relying on informal intelligence, worsen predictive accuracy. Based on these findings, we offer implications for theory and managerial practice concerning the value of predictive accuracy.

2 - Incentives in Contests: To be a Winner or Not to be a Loser

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Players in contests put forth their efforts not only to win but also not to lose. Incentives in contests are earning the winner's gain and avoiding the loser's loss as well. The winner's gain and loser's loss influence contestants' equilibrium effort levels through different channels. While the loser's loss always boosts up players' efforts, but the winner's gain has not only the encouraging effect but also the discouraging effect. This appealing feature allows us to analyze the optimal combination between team incentives and competition incentives in the contest designer's problem to induce players' optimal effort levels. The proportion of team incentives relative to competition incentives should be increasing in the equilibrium probability that players accomplish their tasks. Thus the contest designer makes team incentives more greater if players are relatively capable. On the other hand, if they are relatively incapable, she makes competition incentives more greater. In addition, the result suggest that team incentives should be more weighted as competition is more aggressive. Furthermore, when the collusive cooperation between team members is possible, the contest designer may prefer to put more weights on team incentives as providing the collaborative work environments.

3 - Price and Quality Competition in a Three-Dimensional Vertical Differentiation Model

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This paper studies a three-dimensional vertical differentiation model with an analysis of price and quality competition between two firms. A two-stage game theoretic model is used to analyze market competition and market structure. The model is then used to analyze the competitive strategies for two competitive firms with choices of multiple production locations. Empirical evidence is then provided to support the theoretical findings. Managerial implications are also presented.

4 - The Social Cognitive Structure of Emerging Competitive Markets

Bruce Clark, Associate Professor, Marketing, Northeastern University, 202 Hayden Hall, Boston, MA, 02115, United States of America, b.clark@neu.edu, David B. Montgomery, Bernard Marr

How a manager in a focal firm classifies a target firm as a competitor is fundamentally a cognitive process. This process influences how managers analyze competition and make decisions. Research in marketing and strategy has explored how managers identify their competition and how to group firms based on those cognitions. Across an industry, individual cognitions may be aggregated into a social cognitive structure; previous research suggests that managerial cognition about competition in an industry is relatively homogeneous and related to both firm success and consumer conceptions of competition. Virtually all of this research, however, has been conducted at a single point in time for a mature industry. Our research uses social network analysis techniques to examine evolution of cognitive market structure in two emerging competitive markets. Social network techniques have been successfully applied to various marketing topics, notably the structure of word-of-mouth and business networks. They are particularly well-suited to summarizing cognitive market structure through the perceptions of individuals within the industry. We apply these techniques to one simulated and one field industry. The simulated industry is the Markstrat environment. Respondents were asked to identify competition at two or three points in the simulation. The social cognitive structure described is related to more traditional industry descriptors, industry dynamics and performance, and managerial perceptions over time. The field industry is the Balanced Scorecard software industry. Key informants at software vendors were asked to identify competitors at two intervals. The social cognitive structure described is related to more traditional firm descriptors and firm performance.

■ TB11

Port McNeill

Sales Management II

Chair: Srinath Gopalakrishna, Associate Professor, University of Missouri, 434 Cornell Hall, Trulaske College of Business, Columbia, MO, 65211, United States of America, srinath@missouri.edu

1 - Individual Level Evaluation of Pharmaceutical Sales Representatives

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In the pharmaceutical industry, sales calls (detailing) are the single largest marketing activity. Companies spend more than three times on detailing as compared to the second largest activity, direct-to-consumer-advertising. Hence the correct evaluation of sales force is an important issue. There are three dimensions which need to be considered: Efficiency, effectiveness and effort of the sales representatives. In our paper we focus on the efficiency at first. Literature on efficiency analysis frequently uses standard regression or stochastic frontiers, both usually not accounting for heterogeneity between sales reps. Individual level DEA considers no stochastic error. For an adequate evaluation of each sales rep's efficiency, individual level response parameters and a stochastic environment are useful. Our approach avoids the deficiencies mentioned, by estimating individual level response parameters for each sales rep. using hierarchical Bayes regression. The research methodology is outlined as follows: We define a semi-log sales response model with detailing, events and pharmacy coverage as independent variables. We account for different territory potential by correcting the variables with a scalar potential factor. The model is estimated using Gibbs sampling with a non-informative prior. We derive elasticities for individual sales rep's marketing instruments, creating optimally adapted estimates of the individual selling conditions. Results show different elasticities both across sales reps. and across marketing instruments, indicating heterogeneity in the data. Finally, we identify those employees achieving highest elasticities by detailing efficiently.

2 - Planning Trade Show Expenditures in a Dynamic Competitive Setting

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Trade shows are an important component of the typical b-to-b communications mix. While research in this domain is generally sparse, there remains a large gap in knowledge on tactical aspects of an exhibitor's show planning. For example, exhibitors spend heavily on booth space, pre-show promotion etc. to attract visitors to their booth but continue to base these decisions on "gut feelings" or unsubstantiated heuristics. In our paper, we identify two important factors that exhibitors need to consider before planning their show expenditures. First, exhibitors regularly target marquee shows in the industry that are known to draw large audiences. We would expect that repeated participation by an exhibitor at trade shows should result in the build-up of goodwill which should result in a carry-over effect. While advertising and salesforce carry-over effects have been documented in the marketing literature, possible trade show carry-over effects have not been investigated. Second, major exhibitors (or "anchor" booths) often compete for visitors at the show. Unlike advertising and salesforce, the trade show is unique because captive consumers are exposed to multiple exhibitors in the same setting. Thus, competition would seem substantively different in the trade show setting. Specifically, the presence of a major competitor may either help an exhibitor by increasing total booth traffic and/or the quality of visitors or hurt the exhibitor because the competitor draws the audience away. In our paper, we build a dynamic duopoly model of booth space competition between two key players in the computer industry. We empirically validate our model using data spanning 23 years and solve the implied differential game to suggest exhibitor strategies that are dynamically optimal.

3 - Price Delegation to the Salesforce: Back to Basics

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A long debated marketing problem is whether firms should delegate the pricing decision to the salesforce or reserve its own pricing rights (centralized pricing). Recently, Mishra and Prasad (2005) find centralized pricing to be optimal while Bhardwaj (2001) finds there are demand parameter conditions under which price delegation is the optimal strategy. In the latter, if the cross-price slope of linear demand is sufficiently large, (interpreted as a situation of intense price competition), price delegation to the salesperson is the Nash behavior of rival firms. McGuire and Staelin (1983) and Staelin (2001) warn that an individual parameter of a system of demand equations may be difficult to interpret without returning to the consumer attitudes from which they are derived. Rather than explore how a demand parameter influences strategic price delegation, we follow Staelin's suggestion to explore how the more basic consumer attitudes influence delegation in a competitive environment.

■ TB12

Parksville

Willingness to Pay Measurement

Chair: Eva Gerstmeier, University of Frankfurt, Faculty of Business and Economics, Mertonstr. 17-25, Chair of Electronic Commerce, Frankfurt, 60054, Germany, gerstmeier@wiwi.uni-frankfurt.de

1 - Consumer's Willingness to Pay: A Critical Synthesis and Directions for Further Research

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Differentiated tariffs, bundling, Web auctions: firms pricing practices are evolving. The willingness to pay measurement becomes thus more and more crucial. This paper aims at presenting a synthesis of the growing research stream in marketing using this concept (Wertenbrock et Skiera, 2002 ; Krishna, Wagner et Yoon, 2006; Wang, Venkatesh et Chatterjee, 2007 are examples). At first, a definition of the concept is given and compared to others concepts ones, notably reference price and acceptable price. Then the methods of measurement are exposed and criticised. Three types of methods are considered: real data methods relying on experiments or panels, survey methods as conjoint analysis or contingent valuation and finally incentive-compatible methods as Vickrey's auctions or BDM lottery. Following, the research on the external determinants of WTP is commented. Influence of product features, presentation or customisation, of pricing characteristics as tariffs, bundling, payment mode, promotion and of information in the environment as other prices, especially extreme ones, are considered. Finally, numerous directions for further research are proposed. We conclude on the need to explore customer's determinants of WTP as satisfaction or loyalty further. Measurement of WTP also deserves more research. Especially decreasing the effect of the hypothetical bias in survey methods and of the strategic bias in incentive-compatible methods is at the issue. The influence of product features, for example brand type, of tariffs, of prices in the environment, for example very low prices, and more generally of the environment features (atmosphere, social environment) opens also directions for further research.

2 - Uncovering Consumer Willingness to Pay for Product Attributes Through Hedonic Price Modeling

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This paper is an illustration of the value of hedonic price modeling as a research tool in marketing research. It focuses on the Premium CSD category as an example to communicate this point. Attributes such as brand, flavor, sweetener, ounces per unit, number of units per pack and container type are evaluated. The approach allows us to infer relative equity across brands in the eyes of the consumer, what flavors consumers prefer, how pack units and content affect their willingness to pay, and what container type they value the most.

3 - Determination of Willingness-to-Pay for Multiple Price-Quantity Combinations

Christian Schlereth, Research Assistant, Department of Electronic Commerce, Mertonstr. 17-25, Frankfurt, DE, 60054, Germany, schlereth@wiwi.uni-frankfurt.de, Bernd Skiera

More and more companies, especially in the area of digital music, use a new form of tariffs which consist of multiple price-quantity combinations. E.g. emusic.com (the second largest online music-store worldwide) offers consumers the opportunity to either download 30 songs for $12.99, 50 songs for $16.99 or 75 songs for $20.99. The determination of the optimal price-quantity combinations requires accurate knowledge about the willingness-to-pay (WTP) of the customers. But the estimation of WTP is challenging, because it is unique for each quantity unit such that the consumption of a particular consumer is likely to differ across different price-quantity combinations. We combine the approach of Iyengar, Jedidi and Kohli (2007) to measure consumers' WTP by using choice-based conjoint analysis (CBC) with the idea of Sonnier, Ainslie and Otter (2007) of estimating parameters in the WTP-space. Parameter values are obtained using hierarchical bayes analysis techniques. The results of our empirical study about music download subscriptions show that the combination of both ideas improves the validity of the parameter estimates. We also analyze if dual response yields better parameter estimates. Preliminary results indicate that dual response improves the parameter estimates in a simulation study, but that these improvements do not occur in the empirical study because of an altered selection behavior and a higher annoyance of the respondents caused by the additional purchase question in each choice-set.

4 - Comparing the Validity of Different Methods for Measuring Willingness-to-Pay

Eva Gerstmeier, University of Frankfurt, Faculty of Business and Economics, Mertonstr. 17-25, Chair of Electronic Commerce, Frankfurt, 60054, Germany, gerstmeier@wiwi.uni-frankfurt.de, Martin Spann, Bernd Skiera

Valid methods for measuring consumers' willingness-to-pay (WTP) are a prerequisite for successful pricing policies and proper estimations of the demand for new products. Previous studies empirically examined the validity of different methods for measuring WTP. Real WTP, however is an unobservable construct and therefore most papers use indicators such as consumers' purchase intentions to validate their results. The unique contribution of our study is that we use an induced-values approach to compare four frequently used methods for willingness-to-pay measurement in marketing: the Vickrey auction, the Becker, DeGroot, Marschak-procedure (BDM), the choice based conjoint analysis (CBC) and the name-your-own-price auction (NYOP). The induced-values approach provides an observable benchmark to assess the validity of the different methods. We find in our experimental study that the BDM procedure yields the highest and the Vickrey auction the lowest predictive validity. Based on our findings, we discuss implications for marketing research and practice.

■ TB13

Orca

Brand Strategy

Chair: Burcu Tasoluk, Assistant Professor, Sabanci University, Faculty of Management, Tuzla, Istanbul, 34956, Turkey, tasolukb@sabanciuniv.edu

1 - OEM Perceptions and Behavior towards Supplier Brand Strength

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Despite the fact that both marketing academics and practitioners acknowledge the importance of branding in business markets, we have only limited understanding as to how branding strategies actually create value in a business marketing context. When designing a branding strategy, business marketers are facing multiple customers at different levels of the value chain and networked competition. However, no empirical research has to date investigated how to allocate brand building expenses across the multiple levels of a company's value chain or network. The present study works toward closing this gap by looking at the benefits of building a brand among your customers' customers. In their theoretical framework of market-based assets, Srivastava, Shervani, and Fahey (1998) imply that a brand's equity among indirect customers positively affects the relationship with direct customers. Based on a survey of managers from 241 Original Equipment Manufacturers (OEMs), our study finds that perceptions of the value added to the OEM's product by the supplier brand positively affect the OEM's relationship with this supplier. If a supplier brand enhances the value of the OEM's product, this helps the OEM's marketplace performance. This in turn makes the supplier's component more valuable to the OEM. However, the OEM's perception of the value a branded component is reduced if the supplier uses coercive strategies. Higher levels of perceived value increase OEM commitment and trust, in turn lead to future

expansion of purchases from the supplier. Additionally, commitment and trust indirectly drive collaboration between supplier and OEM and the share of business done with the supplier. Brand investments targeted at customers' customers will thus improve market performance.

2 - Branding a Country as an Educational Destination – Romania's Case

Alin Valentin Angheluta, Assistant Professor, Academy of Economic Studies, Piata Romana Nr. 6, Bucharest, Romania, alin.angheluta@ase.ro

This paper studies the concept of nation (country) branding and presents a theoretical framework for nation branding - the main elements influencing the brand image of a nation, the components of the country brand, the country brand building process etc. One of the issues that should be taken into consideration in the process of country branding is international education. The paper debates the importance of a successful image as an educational destination for the country brand. The possible factors that may influence the image of a country as an educational destination are studied, in order to create a theoretical model. The validity of this model in the case of Romania is tested using data from a survey among foreign students in Romania. Also, secondary data are analyzed in order to assess Romaniaa's potential to compete in the international education market. In the end, strategies for branding Romania as an educational destination are presented.

3 - The Effects of Brand Strategy and Customer Characteristics of Brand Revenue Premium

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Brand equity is usually defined in terms of the positive outcomes that accrue to a product given its brand name compared to a no-name product. High levels of brand equity result in superior performance at the market level (e.g., sustained price premiums, successful expansion into new categories, etc) and higher levels of firm performance. Prior studies on the determinants of brand equity have focused on such factors as category characteristics or marketing mix effects. However, there is little empirical research on the effects of branding and related product line decisions on the equity of individual brands. Another stream of research uses surveys or store level measures to understand why consumers are more likely to buy store brands in some categories. Like other research on brand equity, these studies are limited to a small number of product categories. In this study, we examine how brand management decisions and consumer characteristics influence the brand equity of products in the consumer packaged goods area. We use revenue premium to measure retail level brand equity for a comprehensive set of brands sold in grocery stores in the United States. Our data include some 9000 brands in more than 200 different categories. This study will provide generalizable insights into the role of major brand management decisions in creating brand equity. Our findings have important implications for practicing brand managers and academic researchers in the branding field.

4 - A Contingency Hierarchical Generalized Linear Model for Brand Associations

Burcu Tasoluk, Assistant Professor, Sabanci University, Faculty of Management, Tuzla, Istanbul, 34956, Turkey, tasolukb@sabanciuniv.edu, Roger Calantone, Cornelia Droge

Past research suggests that brand quality and brand prestige are determinants of global brand equity (GBE). This research addresses two fundamental questions. First, what is the impact of quality versus prestige on GBE? Second, is the strength of the relationship between GBE and either quality or prestige contingent on consumer characteristics, namely age and income? The key country characteristic of GDP per capita, is included in the contingency framework to understand whether the relations differ in more vs. less developed countries. The data are from more than 31,000 consumers from 31 countries. The methodology illustrates the use of multi-level modeling techniques for this nested data structure (i.e., the consumers are "nested" in countries). The consumer-level, main effect results show that quality and prestige are positively related to GBE; the direct effect of quality on GBE is higher than that of prestige; both income and age are negatively related to GBE. The interaction effect of income and quality is significant and positive, so is the interaction effect of GDP per capita and quality. The interpretations of the consumer-level and "across-data-levels" direct and interaction effects reveal the pervasive, complex impact of global brand associations on brand equity.

■ TB14

Finback

Issues in Advertising

Chair: Georges Zaccour, Professor, HEC Montréal, 3000 Côte-Sainte-Catherine, Montréal, QC, H3T2A7, Canada, georges.zaccour@gerad.ca

1 - The Effects of Focused, Unique, and Temporally Consistent Advertising Messages on Brand Sales

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We use consumer knowledge theory to develop and test a model of the effects of unique, focused, and temporally consistent advertising messages on brand sales. We argue that focused ads improve consumers' ability to analyze and elaborate on ad information, thus increasing consumers' knowledge about the brand. Advertising messages that are temporally consistent and differentiated increase the familiarity, elaboration and memorability of ad information, thereby increasing consumers' knowledge about the brand. Higher levels of brand knowledge, in turn, are likely to improve the sales performance of the brand. We test our hypotheses in the context of US minivan sales. Specifically, we track (1) monthly sales, price, and distribution intensity for all minivan brands from Ward's Automotive Yearbook, (2) ad content ratings of approximately 2,200 print advertisements from a census of minivan ads from 7 leading magazines, (3) quality ratings for each brand from Consumer Reports, J.D. Power & Associates, and Autopinions, and (4) monthly advertising budgets for each brand from Competitive Media Reporting over a 21-year period from category inception. We specify a Hausman-Taylor variant of a piecewise random-effects regression model that accounts for unobserved heterogeneity, the endogeneity of marketing mix decisions, and varying effects by stage of category life cycle. We find support for a positive association between brand sales and the use of temporally consistent, unique, and focused advertising messages. Consistent with our hypotheses, we also find that these effects vary significantly with the category life cycle.

2 - Flexible Modeling of Multiple IMC Threshold and Interaction Effects

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Integrated Marketing Communications (IMC) effects can be complex as suggested by studies identifying the presence of advertising thresholds (Vakratsas et al 2004) and interactions (Naik and Raman 2003). Although they are commonly preferred, parametric methods in modeling market response to multiple IMC elements are usually naÔve and computationally demanding. They are also subject to certain limitations such as self selection bias and model misspecifications which are greatly intensified as the number of explanatory variables increases. In this paper the authors compare the performances of different parametric and non-parametric models capturing threshold and interaction effects of multiple IMC elements. To better understand the effectiveness of non-parametric methods in investigating multiple thresholds of IMC effects, we focus on the comparison of two most commonly used techniques: kernel estimators and spline smoothing, specifically Multivariate Adaptive Regression Splines (MARS). Application of these methods to two data sets concerning different brands and product categories, revealed not only the existence of multiple threshold effects but also that both kernel and MARS are able to better capture market response phenomena in the context of IMC effects. Curves regarding the effectiveness of different IMC elements follow similar patterns for kernel and MARS estimation. While the kernel method is more susceptible to the "curse of dimensionality" problem, MARS enables simultaneous estimation of multiple threshold effects by being locally adaptive and thus less prone to dimensionality problems. This difference becomes more salient as the data dimension increases and when interaction effects of different IMC elements are considered.

3 - The Effect of the Diffusion of Ad Avoidance Technologies on Advertiser Strategies

Bikram Ghosh, University of South Carolina, Marketing Department, Columbia SC, bghosh@moore.sc.edu, Axel Stock

Recent advances in technology have a profound effect on consumers' television viewing behavior. For consumers the digital video recorder offers the possibility to record and fast-forward through live programming. While the new technology evidently benefits consumers, industry observers believe that it puts the long established business model of the

industry in jeopardy by rendering commercials ineffective. Contrary, the recent academic literature in marketing has shown that the improved possibility of targeting consumers with advertisements through the digital technology may lead to greater profits for advertisers under some conditions. However, industry practice suggests that there are considerable barriers to use targeting. We develop a game theoretic model to study the effect of the diffusion of the digital video recorder in the population on competing advertisers' pricing and advertising strategies. While we show conditions under which the ad avoidance technology hurts advertisers' profits, we also identify conditions under which advertisers benefit from the technology, even if targeting of consumers with advertisements is not possible. We explore the possibility of targeting and other extensions of our model.

4 - Advertising Strategies in a Fashion Licensing Contract

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The aim of this paper is to characterize cooperative and noncooperative advertising strategies of a licensor and licensee involved in a licensing contract in the fashion business. Licensing is the process of leasing a legally protected entity (brand, name, logo, etc.) in conjunction with a product or product line. It is based on a contractual agreement between two business entities: the owner of the property, called licensor; and the renter of the rights, called licensee. Licensing is seen as a win-win strategy, in which the two partners can achieve their objectives (e.g., expanding the brand, its market reach, etc.) We show that if the licensor, who acts as the leader, uses an incentive strategy that depends on the licensee advertising, then it can reach the jointly optimal solution in a decentralized way.

■ TB15

Granville

Best Practices for Effective Global Marketing

Chair: Corine Noordhoff, Assistant Professor, VU University, De Boelelaan 1108, Amsterdam, 1081 HV, Netherlands, cnoordhoff@feweb.vu.nl,

1 - Solution Selling: Capabilities for Value Creation and Value Appropriation

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Global competition and declining margins have made enterprises in diverse industries increasingly aware that assuring low cost, product performance and high quality is no longer sufficient for long-term success. Integrating products and services to customized solutions can help firms to differentiate from their competitors. Organizational resources need to be applied for developing capabilities in both fundamental dimensions of value creation and value appropriation (Foss & Foss, 2005; Mizik & Jacobson, 2003). Following the resource-based theory of the firm, we adopt a process oriented perspective on both capabilities in order to identify crucial factors and activities. Based on eleven in-depth interviews and an exploratory survey with managers from forty-five solution providers we derive a four-step process of value creation (analysis/consulting, design/configuration, implementation/delivery, and support/operation) for solution selling. Extending previous work on this subject by Tuli, Kohli, and Bharadwaj (2007), we present a set of critical activities and pitfalls within each step. In practice solution providers very often fail to realize moderate prices for their offerings. Therefore, building up on the study of Dutta, Zbaracki, and Bergen (2003) the second key contribution of our research is a generic price management process as central capability for value appropriation in the context of solutions. Derived from fifteen in-depth interviews we present six process steps (pricing strategy, price analysis, price definition, internal price enforcement, external price enforcement, and price controlling) with a detailed set of activities and routines acting as management-levers for developing pricing as a capability.

2 - MBA Job Preferences: Including Ethics and CSR

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MBA's are an increasingly important factor input market for global firms. This research calibrates MBA job preferences on fourteen attributes including financial remuneration, intellectual challenge, ethics, and corporate social responsibility. Adaptive conjoint analysis was used in the calibration as was the time honored dollar metric procedure to examine the impact of ethics and CSR on job preferences. Over 1300 MBA's from eight North American and three European schools responded. Overall results as well as gender and regional (AsiaAustralia/Europe/Latin America/North America) similarities and differences are discussed.

3 - Centralization versus Decentralization of Marketing Activities in Leading Italian Firms

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International and multinational companies are showing an increasing interest in developing global strategies, that is, in taking integrated and globally uniform approaches to their strategy and planning process. There have been a number of studies discussing the merits of a global versus a local approach. However, none of these studies have empirically tested the complex implementation issues of a global marketing strategy, let alone an integrated global marketing strategy (Sheth,2001; Guerini 2006, 2007). Therefore a thorough analysis and research of global marketing operations integration is definitely needed. The framework of this paper is constructed on the basis of multi-disciplinary prior research by the author. Moreover, integrating marketing with further inter- and intra- functional activities, on a worldwide scale, involves some understanding of various issues in international business, including organization theory, trade theory, strategic management, marketing organization and strategy, social sciences, and an understanding of behavioral, relationship and cultural issues. The first part briefly reviews the main concepts regarding those theories in order to establish a conceptual foundation of the study. It then outlines the research questions and methodology, and the proposed output. The second part analyzes five Italian companies in order to gain a sound understanding of how and why Italian companies are implementing an integrated global marketing approach. The strategy used is a combination of case study research and archival analysis. The third part shows the main findings of the research and its limitations.

4 - Building Capabilities Through Vertical Relations: The Role of Tie Strength and Firm Memory

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To overcome the inertia of internal strengths and build new capabilities, firms increasingly collaborate with supply chain partners in joint new product development (NPD) projects. For example, innovations in industries such as scientific instruments, biotechnology, or advanced materials often arise from collaborations with key suppliers or lead users. Inter-firm relations research building on the tie strength theory concludes that firms benefit from divergent yet embedded partners. In examining the emergence of capabilities through these vertical relations, we examine the moderating effect of tie strength features on the value of firm memory for capability development. Specifically, we challenge prior inter-firm research to argue that a firm with strong internal memory needs supply chain partners with high knowledge redundancy but low relational embeddedness to develop new capabilities. Thus, while extant research stresses the traps and the potential of memory, we go one step further to examine the mechanisms through which two key features of vertical relations make internal memory an asset in pursuing capabilities. We test these ideas using a sample of 246 firms that recently participated in a vertical NPD relationship. Our hypotheses and findings overall advance research on capability development in counterintuitive ways as they highlight the potential of firm memory for and the multi-faceted role of tie strength in capability development.

■ TB16

Galiano

Multi-Product Marketing

Chair: Chakravarthi Narasimhan, Professor, Washington University, Olin Business School, Campus Box 1133, St. Louis, MO, 63130, United States of America, narasimhan@wustl.edu

1 - B2B Banking Transactional, Lending and Savings Product Acquisition Sequences and Rates of Change

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Product acquisition sequences have been studied within the tangible goods industry over many decades already. Relatively few have considered such sequences in services industries, with only some of these having taken

place within the consumer banking industry. Even fewer, if any, have been conducted in Business Banking, a banking unit focused on meeting the financial needs of Small and Medium Enterprises (SMEs). This study not only shows that such sequences exist in Business Banking, it shows that the product acquisition sequences differ significantly between industries and market segments. The findings have implications for the way that products are sold to business banking customers, especially in a relationship management context. It indicates what products are important and at what time they are important to which customers, at a segment and industry level. An advantage of such information to the relationship manager is that it helps form a customer review agenda, which can now take into account the particular customer's needs by segment and industry. This paper contributes to marketing literature because not only does it consider savings-, loans- and transactional products (including card) in combination, using product acquisition records that are up to 25 years old (i.e. the study uses a longitudinal data set), it considers them in a Business Banking rather than a Personal Banking context. The use of longitudinal data is an especially relevant contribution because extant acquisition pattern analyses have tended to use cross-sectional data. Furthermore, the study considers differences in acquisition patterns across both market segments and across industry sectors in Business Banking, an approach that does not seem to have been taken previously.

2 - Individual Marketing, Product Differentiation and Tacit Collusion with Unobservable Demands

I-Huei Wu, College of Management, National Taiwan University, 5F, No 637, Bei-An Road, Taipei, Taiwan - ROC, d93741003@ntu.edu.tw, Chyi-Mei Chen, Shan-Yu Chou

We consider a duopoly industry with unobservable, stochastic arrival of new consumers, in which firms make decisions about costly product differentiation, pricing, and (if Internet trading is available) personalized service provision. In the absence of Internet, consumers must spend on transportation to trade with a geographically remote merchant, and it is costly for firms to observe their rivals' prices. The pre-Internet equilibrium is featured by little product differentiation and periodical price wars. With Internet trading, the saving in consumers' transportation costs has two opposing effects on static competition: it implies a reduced heterogeneity between the firms, but it also makes product differentiation more profitable, and the latter raises competitive profits. With Internet trading, a firm can also offer personalized services to existing customers, which creates a lock-in effect that allows the firm to charge personalized prices to existing customers and a (uniform) different price to new customers. We assume that the latter is freely observable by the rival firm. In this framework we show that (i) when transportation costs are high but costs of providing personalized services are low, Internet trading tends to imply more product differentiation, lower but less volatile prices offered to new customers, and little chance for tacit collusion; and (ii) when transportation costs are low but costs of providing personalized services are high, Internet trading tends to imply a high chance of tacit collusion, and higher but less volatile prices offered to new customers.

3 - Intra-Firm Coordination of Product Management in a Supply Chain

Chakravarthi Narasimhan, Professor, Washington University, Olin Business School, Campus Box 1133, St. Louis, MO, 63130, United States of America, narasimhan@wustl.edu, Lingxiu Dong, Kaijie Zhu

We investigate the drivers of horizontal coordination of product management in a bilateral monopoly in which a manufacturer produces and sells two substitute or complementary products to a retailer. In a two stage game each firm commits credibly in the first stage to a product management scheme within its organization: independent or coordinated management of its two products. In the second stage the firms engage in a pricing game either vertical Nash or leader-follower. We study the equilibrium of the two stage game under two demand functions, linear demand and multiplicative demand. We find that whether a firm coordinates the management of its products depends on whether the products are substitutes or complements, the demand function, and the type of the second stage pricing game. When the second stage sub game is a leader-follower game, both firms choose to coordinate in the first stage regardless of the product interrelatedness or demand functions. Interestingly, when the second stage game is a vertical Nash game, driven by the interplay of the vertical strategic pricing interaction and the horizontal competition between products, firms might choose independent management in the first stage game. We find that when product interrelatedness and vertical pricing interaction are of the same nature, both being substitutes or complements, coordinate-coordinate is the equilibrium, otherwise, the opposite nature can lead to a first stage outcome that is different from coordinate-coordinate. We provide conditions that lead to different equilibria. Prisoner's dilemma exists in the first stage regardless of whether the second stage is vertical Nash or a leader-follower game. We also discuss the implications of our results in contexts of category management.

■ TB17

Pavilion D

Meet the Editors

1 - Meet the Editors

Editors of leading journals for marketing academics will present their editorial policies and perspectives. The following editors are represented:

Marketing Science (MKS) - Eric T. Bradlow
Journal of Service Research - Kay Lemon
Journal of Marketing - Roland Rust
International Journal of Research in Marketing - Stefan Stremersch and Donald R. Lehmann
Journal of Marketing Research (JMR) - Gerald J. Tellis

Thursday, 4:45pm - 6:15pm

■ TC01

Junior D

Dynamic Structural Models

Chair: Harikesh Nair, Graduate School of Business, Stanford University, 518 Memorial Way, Stanford, CA, 94305-5015, United States of America, harikesh.nair@stanford.edu

1 - Durable Goods Oligopoly with Innovation: Theory and Empirics

Ron Goettler, Associate Professor of Economics, Tepper School of Business, Carnegie Mellon University, Tech & Frew Streets, Pittsburgh, PA, 15213-3890, United States of America, ronald.goettler@cmu.edu, Brett Gordon

We propose and estimate a model of dynamic oligopoly with durable goods and endogenous innovation. Firms make dynamic pricing and investment decisions while taking into account the dynamic behavior of consumers who anticipate the product improvements and price declines. The distribution of currently owned products is a state variable that affects current demand and evolves endogenously as consumers make replacement purchases. Our work extends the dynamic oligopoly framework of Ericson and Pakes (1995) to incorporate durable goods. We propose an alternative approach to bounding the state space that is less restrictive of frontier firms and yields an endogenous steady-state rate of innovation. Using a simulated minimum distance estimator, we estimate the model for the PC microprocessor industry and perform counterfactuals to measure the benefits of competition. Consumer surplus is 4.1 percent higher ($17 billion per year) with AMD than if Intel were a monopolist. Innovation, however, would be higher without AMD present. Social surplus is 1.7 percent higher with both firms compared to monopoly, but 15.2 percent below what a social planner would attain. We also show that prices and profits are substantially higher when firms correctly account for the dynamic nature of demand, compared to an alternative scenario in which they mistakenly ignore the effect of current prices on future demand. Finally, equilibrium prices, profits, innovation, and consumer surplus are all increasing in the consumer's discount factor. Higher discount factors imply higher discounted flow utility from the durable good, which raises the consumer's willingness-to-pay.

2 - Uncertainty, Learning and Quantity Dynamics for Frequently Purchased Products

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Consumers are often faced with considerably uncertainty about the quality of products that are new to them. A growing literature in marketing and economics examines consumer learning through usage experience and marketing communication by the firm in this context of consumer uncertainty. In this literature, data on choices made by consumers are used to identify learning, with learning leading to systematic variation in choice

behavior. In particular, forward-looking consumers have an experimentation motive when they are uncertain about products and this is critical to inferring learning. However, in many contexts, consumers often do not switch between brands very much due to a variety of reasons. Thus, choice data often only weakly identify learning.

3 - Entry Timing and Pricing of Digital Video Discs in the U.S. Motion Picture Industry

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In the U.S. motion picture industry, DVDs are increasingly a major source of revenue for movie studios. Studios must therefore make appropriate strategic choices of DVD release timing and pricing. Industry evidence suggests studios consider various release date options as evidenced by their preannouncements. So how does the competitive equilibrium of release dates and prices evolve? When deciding DVD release dates and prices, studios must consider the following. First, weeks of peak demand increase sales. Second, peak weeks might have higher costs of entry. Third, intense competition in weeks of peak demand might reduce market share. Fourth, price competition in weeks of peak demand lowers margins. Fifth, deferring a DVD release (e.g. to a non-peak demand week) long after the movie's theatrical run reduces the potential sales of the title in the channel. Traditional Markov Perfect Nash Equilibria models used to analyze such situations are not applicable for three reasons. First, the seasonality of demand and competition leads to time-varying strategy selection rules for firms. States of the world follow a first-order non-stationary Markov process. Second, the studios' preannouncements (i.e. action and state vectors) are not observed by the researcher, and cannot be imputed from the data. Third, there are no existing methods available to choose between multiple equilibria. Therefore, we build on Oblivious Equilibrium methods to estimate our model.

4 - Quota Dynamics and the Intertemporal Allocation of Sales-force Effort

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We empirically investigate the effect of sales-force compensation schemes on the intertemporal allocation of sales-agents' effort. Many sales-force compensation schemes in the real-world involve quotas, which specify discontinuous compensation policies for agents when their output crosses pre-specified thresholds. The theory on quotas has noted that these may introduce intertemporal inefficiencies, arising from the potential for strategic timing on the part of sales-agents. A commonly observed compensation scheme involves a guaranteed salary plus a bonus if sales are higher than a pre-specified quota. Under this scheme, sales-agents who achieve the level of sales required for a bonus in the current compensation cycle may have an incentive to postpone additional effort to the future. This enables the agent to use the sales generated from the postponed effort to attain the bonus in the next compensation cycle. The existence of a discount factor for the firm implies that this is inefficient from its perspective, since current dollars are being shifted to the future. These aspects of compensation plans induce dynamic considerations into sales-agents' actions. Quantifying the empirical relevance of these dynamic considerations requires modeling the forward-looking behavior by which sales-agents allocate effort over time. We model agents as maximizing intertemporal utility, conditional on the current compensation scheme, and their expectations about how quotas would be updated based on their chosen actions. Our index of the inefficiency is linked to a counterfactual in which agents choose actions when facing a compensation plan without quotas. The extent to which sales are higher under the counterfactual relative to the observed level, gives us a measure of the inefficiency. The structural derivation of our model of agent behavior facilitates this counterfactual analysis. Our empirical approach is to estimate, in a first stage, the structural parameters involving the sales person's utility function, and to then simulate in a second stage, his behavior given a changed compensation profile. We utilize a rich dataset that involves complete details of sales, and compensation plans for a set of 90 sales-people for a period of 2 years at a large consumer-product company in the US. Our estimates from the data suggest significant inefficiencies arising from the structure of the compensation scheme.

■ TC02

Junior C

Financial Market's Reaction to Marketing

Chair: Donald Lehmann, George E. Warren Professor of Business, Columbia University, 3022 Broadway, New York, NY, 10027, United States of America, drl2@columbia.edu

1 - The Theory and Practice of Myopic Management

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Theoretical models of myopic management show that incentives for myopic behavior and the use of specific myopic strategies increase with the financial market's inability to recognize and evaluate long-term consequences of such managerial strategies early-on. We document empirically the market's inability to properly value marketing and innovation activity in the face of potential for myopic management. This result helps explain the widespread practice of cutting marketing and R&D spending to inflate earnings numbers. We also assess the total financial consequences of myopic management and find that myopia has net negative impact on firm value. These results are consistent across alternative abnormal return measures and alternative benchmarks we use. We discuss the role shareholders, managers, and marketing researchers can play in limiting myopic management practices.

2 - Linking Brand and Customer Attitudinal and Behavioral Metrics to Financial Outcomes: A Latent Growth Modeling Approach

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Drawing on assertions of marketing scholars and practitioners that customer satisfaction ratings are the best indicator of a company's future profits, firms have built customer satisfaction programs to periodically evaluate their efforts at keeping their clients satisfied. At the same time, firms have often treated marketing expenditures as short term costs rather than long-term investments, especially when faced with trade-offs of competing marketing strategies such as focusing either on customer satisfaction or brand building. Systematic empirical evidence examining the relative importance of these alternative investments as well as their interrelationships is limited. We explore these issues using a unique data set of primary self-report data merged with long-term archival profitability data at an individual level in the financial services industry and using a latent growth modeling approach. We present a set of results which are both novel and useful to academics and managers.

3 - The Under-appreciated Value of Marketing Metrics

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There is evidence that investment in marketing assets might be undervalued and that it can take a long time for the value associated with marketing investments to mature. We examine the financial market's ability to fully and timely value marketing related information released along with quarterly earnings data. First, we use traditional event studies to examine the immediate market reaction to earnings announcements conditional on a firm's marketing strategy. We find no difference in market response to earnings announcements for firms expanding versus reducing their marketing budgets. However, a post earnings announcement drift study finds significant evidence of a drift with a direction that is consistent with the under-appreciation of marketing assets. Specifically, firms reporting an increase in marketing asset expenditures have significant positive drife in the six months following an earnings announcement, and outperformed firms that decrease investment in these assets. This result is consistent with the earnings fixation hypothesis; analysts are not paying sufficient attention to non-financial related information (i.e., marketing spending), which leads to an adjustment in the future as the effects of marketing expenditures become evident.

■ TC03

Grand D

Private Labels

Chair: Harald J. van Heerde, Professor of Marketing, Waikato Management School, University of Waikato, Private Bag 3105, Hamilton, Waikato, New Zealand, heerde@waikato.ac.nz

1 - A Cross-continent Study of the Drivers of Consumers' Willingness to Pay a Price Premium for National Brands Over Private Labels

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Inge Geyskens, Jan-Benedict E. Steenkamp

The authors conduct a cross-country, cross-category study into the drivers of consumers' willingness to pay a price premium for national brands over private labels. They specify an economic model that expresses the price premium that consumers are willing to pay as a function of the perceived quality gap between national brands and private labels, sensitivity to quality, sensitivity to price, perceived uncertainty about the utility provided by national brands, perceived uncertainty about the utility provided by private labels, and risk aversion. Hypotheses on the impact of category, consumer, and country characteristics on the model parameters are tested using Bayesian methods on a survey from 22,623 consumers from 23 countries on four continents. The authors then discuss strategies national brand managers can use to maintain or increase consumers' willingness to pay a price premium for their brands.

2 - The Reciprocal Relationship Between Private Label Use and Store Loyalty

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Koen Pauwels, Jan-Benedict E. Steenkamp

We develop an econometric model of the relationship between a household's private label share in a chain and its loyalty to the chain. It includes major drivers of these two behaviors and controls for simultaneity and non-linearity in the relationship between them. We estimate the model for two retail chains in the Netherlands. We find that private label share significantly affects all three measures of behavioral loyalty in our study, share of wallet, share of items purchased, and share of shopping trips. And, behavioral loyalty also has a significant effect on private label share. For the first chain, we find that both effects are strongly non-monotonic in the form of an inverted U. For the second chain, the effects are non-linear but do not exhibit non-monotonicity because private label shares are not high enough to reveal negative returns. The managerial implications of this research are very important. Retailers can reap the benefits of a virtuous cycle - greater private label share increases share of wallet and greater share of wallet increases private label share. But, this virtuous cycle only operates to a point, as heavy private label buyers tend to be loyal to price savings and private labels in general, rather than to the private label of any particular chain.

3 - National Brands and Copycat Private Labels: Consumer Learning and Quality Spillover Effects

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Els Gijsbrechts

Many private labels are modeled on leading national brands. These copycats constitute a major source of concern and even legal action on the part of leading manufacturers. On the one hand, copycatting can be considered as "quality signaling" leading to quality spillovers from the imitated national brand, to the copycat private label. On the other hand, associated memory confusion may impede separate learning about the imitated brand and the copycat. To the best of our knowledge, these phenomena are not well documented empirically in actual choice settings, leaving it unclear what are the benefits of copycatting for private labels, and how large a threat it poses to imitated national brands. To address this gap, we develop a structural brand choice model that accommodates dynamic cross-brand learning among the imitated national brand and the private label copycat, and calibrate it on household panel scanner data sets from two product categories and two retail chains. The outcomes will shed light on the following issues: Do consumers shape their quality perceptions of copycat private labels based on consumption experiences with the imitated national brand? Are these spillovers recurring, or do they dilute as consumers build up consumption-based brand knowledge? Moreover, is there evidence of experience-based "reactance", i.e. consumers refuting the imitating private label if its quality appears too low compared with the imitated national brand? And finally, is learning bi-directional, i.e. are quality perceptions of the imitated brand affected by experiences with the copycat private label? Our initial results point to quality spillovers from the imitated national brand to the copycat private label, but not the reverse.

4 - New Products, The Antidote to Private Label Growth? Who is Fighting Whom?

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The continuing growth of private labels (PLs) has served as a catalyst for CPG companies to re-evaluate how and where to compete. Throughout the business literature, product innovation is credited as one of the strongest weapons against PLs in the manufacturer's arsenal. However, at the same time, improved PL quality is believed to be a major reason for the growing acceptance of PLs. Moreover, as PL strategies evolve from functional price-based products to ones that embrace broader brand quality credentials, national brand manufacturers increasingly feel they have fewer moves left to fight PLs. They could never compete with PLs on price. Now many of them feel they can not compete on quality either. The question therefore emerges to what extent brand manufacturers can truly fight PLs through expensive, rapidly imitated, innovations. Or, do these new product introductions, in contrast, - as argued by some- actually benefit PL growth? Moreover, is the impact of national brand innovation on competing PLs still different from its impact on competing leading national brands? Next, how should the new product be positioned within the category on quality, features, and price? To address these questions, a study is carried out to evaluate the effect of new products on three metrics that are of paramount interest to the CPG manufacturer, the retailer, or both: (i) own brand market share, (ii) competing national brands' market share, and (iii) PL market share, using data on over 150 new CPG launches between 2003 and 2006 in the U.K. In a first step, a multi-break model that quantifies the impact of individual new-product events on both the level and growth of the focal brand and competing PLs and national brands in the category is developed. In a next step, we explore what type of innovations and introduction strategies are able to impact these metrics.

■ TC04

Port Alberni

Social Influence and Self-Construal in Consumption

Chair: Arvid O. I. Hoffmann, Dr., University of Maastricht / Faculty of Economics and Business Administration / Department of Finance, P. O. Box 616, Maastricht, 6200 MD, Netherlands, a.hoffmann@finance.unimaas.nl

1 - Does Self-reflection Affect Product Evaluation?

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Would consumers evaluate a product differently if they reflect on themselves? Self-categorization theory suggests that they would. The theory postulates that people cognitively represent the defining and stereotypical attributes of groups in the form of prototypes, and people belonging to a social group are motivated to adhere to the group's prototype for various reasons. Furthermore, people's reflection on themselves (e.g., thinking about themselves when looking at their own images in a mirror) could make the prototype salient in their mind, thus affecting their judgment of a stimulus to which they are exposed at the same time. This implies that in evaluating a product, consumers who are encouraged to reflect on themselves are likely to place more emphasis on product attributes that manifest their social identity's prototype than those who are not. This proposition is supported by two studies involving male and female participants respectively. Participants in both studies were asked to evaluate a female top in a simulated window display. Half of them viewed a display with a mirror and the other half watched a display without a mirror placed beside the top. The results of both studies suggest that in evaluating the top, participants who were encouraged to reflect on themselves (who viewed the display with a mirror) were more strongly influenced by the feminine image projected by the top than were participants who were not (who viewed the display without a mirror). In addition, this finding suggests that males share similar knowledge about the female prototype with females, and the female concept is strongly linked to the male concept in males' mind. Furthermore, the finding has significant implications for retail marketing practice.

2 - "Building Character": Effects of Lay Theories of Self-control on the Selection of Products for Child

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This research studies the effect of consumers' lay theories of self-control on their choices of products for young children. Four experiments, in the laboratory and in the field with real parents as respondents, demonstrate that people who believe that self-control is a small resource that can be increased over time (i.e., limited-malleable theorists) are more likely to engage in behaviors that can facilitate children's self-control development. Our findings show that limited-malleable theorists take their children less frequently to fast food restaurants, give their children unhealthy snacks less often, and prefer educational to entertaining television programs for their children. Further, when choosing gifts for young children, limited-malleable theorists prefer gifts that teach delayed gratification by delivering greater value in the long- than the short-term. On the other hand, people who either believe that self-control is a large resource or that self-control cannot be improved over time do not appear to engage in behaviors that can facilitate children's development of self-control. The similar patterns observed across experiments, across the domains of gift-giving, television program preferences, and eating allowances, and in the lab with student participants as well as in the real world with real parents, provide strong support for our hypothesis that the actions of parents and other elders may implicitly influence how children develop, driven purely by beliefs such as lay theories that the adult may hold and independent of any explicitly held motives. Other psychological and demographic variables did not explain these patterns systematically, and controlling for these factors did not affect the basic pattern of results.

3 - Ptolemy vs. Copernicus: Self-Construal in Social Consumption

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Past research has examined individual consumer decisions in great detail (Bettman, Luce, & Payne, 1998), but has neglected social consumption contexts, where consumers observe and respond to others' choices (Ariely & Levav, 2006), or make choices for others (Poehlman., Carranza, Hannover, & Iyengar, 2007). We investigate how independent versus interdependent individuals respond to others' choices and outcomes in such social contexts. In three studies, we find that independent consumers are characterized by a Ptolemaic, or inward-focused, view of consumption, while interdependent consumers are characterized by a Copernican, or outward-focused, view of consumption. These two points of view lead to interesting outcomes for consumers with differing self-construals. First, we find that self-focused independent individuals care less when others' choices are restricted (Study 1), and that they are poorly calibrated about what others would prefer to do in different choice contexts (Study 2). Despite this miscalibration, independent individuals suffer fewer negative consequences from making choices for others, and are more willing to make these choices than interdependent consumers; only when the decision is high stakes do independent individuals "snap out" of their self-focus (Study 3). Thus, while a Ptolemaic point of view implies a lack of sensitivity to others, this self-focus provides some protection against negative emotional consequences when others' choices are restricted or when choices are made on behalf of others.

4 - Investors' Susceptibility to Interpersonal Influences

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This paper demonstrates the relevance of the concept of consumers' susceptibility to interpersonal influence in an investment setting. The important effects of consumers' susceptibility to interpersonal influence (CSII) on consumers' decision-making processes have been extensively documented in the consumer behavior and marketing literature (e.g., Bearden et al., 1989; 1990; Bearden & Etzel, 1982). However, these studies chiefly focus on conspicuous and socially visible products, such as cars (Bearden & Rose, 1990; Netemeyer et al., 1992), apparel (Meyer & Anderson, 2000; Miller, 1998), and women's cosmetics (Chao & Schor, 1998). We aim to fill this research gap by demonstrating the relevance of this concept for a less conspicuous and visible product category, namely investments. A survey amongst 286 individual investors highlights the main antecedents and consequences of these conformity influences. We find that investment-related knowledge and experience, psychological and social risks, and social needs explain investor's susceptibility to informational and normative influence. The effect of social needs on susceptibility influences is pronounced by the investor's level of ambiguity intolerance. Finally, we find that although both dimensions of susceptibility to interpersonal influence are positively related, they have opposite effects on the number of transactions investors make.

■ TC05

Grand C

New Product Diffusion-Cross Country Studies

Chair: Guy Yogev, PhD Candidate, Tel Aviv University, 88th Levanon St., Tel Aviv, 69345, Israel, yogevg@post.tau.ac.il

1 - Adoption of Value-Added M-Services: A Cross-National Investigation

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In this cross-national study the authors explore the moderating role of cultural dimensions on the relationship between customer characteristics and the adoption probability of new m-services. They use survey data on consumer attitudes and self-reported adoption of multiple value-added m-services from the US, Japan and Germany. Using a multivariate probit model with latent variables, the authors show that the effects of age, consumer innovativeness and category related variables are consistent across countries. However, the influence of gender on adoption probability seems to be more prominent in highly masculine countries, and susceptibility to normative influence has a more prominent effect in individualistic countries than it has in collectivist countries.

2 - The Demand for Size: An International Study on Optimal Product Attributes

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When launching a new product in various countries, managers have to make decisions that are affected by cultural and economic differences across those countries. Recent studies focused on the consequences and strategic implications of these differences on takeoff levels and on growth, see for example Tellis et al. (2003) and Stremersch and Tellis (2004). Perhaps due to data limitations, those studies focused on aggregated data instead of data at the attribute level. Of course, various technical features of the individual products and attributes like size and shape will make a difference. For example, countries may differ in the speed of adoption of new and improved versions of a product. Taste differences across countries will lead to different optimal levels of attributes, like the optimal size of a television screen. We propose a cross-country model on sequential diffusion patterns of different versions of a high tech product. The model forecasts concern type-specific attribute level sales data. We calibrate our model on a large and unique dataset for flat televisions (LCD and Plasma) across seventeen countries (among which there are several new EU countries), where we have a range of screen sizes and monthly data. The novelty of our model is that it allows managers to differentiate across attributes of sequences of products. Hence, firms can customize the introduction of their products not only on when and where, but also on the attributes of products across countries. The wide variety of cultural and economic differences between the countries in our dataset shows that there are differences in preference for what the optimal attribute level is. These differences give managers the opportunity for a more country-specific way of differentiation.

3 - Catch-Up, Leapfrogging, and Globalization: Dynamics of New Product Adoption Across Nations

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Is the World Flat? We examine this in the context of consumer adoption of new products, across several countries. We ask if differences in penetration of products across global markets have been increasing, decreasing or remained constant over time, whether this differs by categories, and what forces are driving these dynamics. Over a 50-year period, we find that there are persistent disparities in the adoption of new products. North America, Japan, Scandinavian countries are consistent leaders. The extent of economic, social and political flows, as well as absolute levels of macroeconomic and cultural factors help explain these differences. However, lag-

gards are "catching up" over time, at least for some categories. Specifically, we find that Work products are characterized by high levels of mean penetration and convergence in developed countries, and by low levels of mean penetration and status quo in developing countries; Entertainment products are characterized by quick saturation in developed countries and leapfrogging in developing countries; Communication products are characterized by convergence between and among developed and developing countries. Convergence in wealth and globalization forces contributes to these dissipating differences.

4 - The Diffusion of Freewares

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One of the more interesting and dynamic markets world wide is that of Freeware. A Freeware is a digital information products that is given free of charge to customers at the hope that a certain percent of them will later buy an extended version. WebEx, Skype, Mozilla Firefox, LogMeIn and AVG antivirus are examples of products whose successful growth was based on the freeware strategy. Freewares are an example of an organic growth in which a product is growing worldwide, with no effect of county specific marketing mix effects. It is thus a rare opportunity to examine the fundamentals of how innovations diffuse in a global context, and specifically if indeed the world becomes "borderless" as is often claimed. To examine these issues, we use a unique dataset of daily individual level adoptions of Freeware software since its first day and up to 20 million users worldwide a number of years later. We first examine the growth of the free version, and then present a two stage diffusion model that enables us to explore the move to the payable version as well.

■ TC06

Grand B

Movie Marketing

Chair: Amit Joshi, Assistant Professor, University of Central Florida, Dept of Marketing, College of Business, P.O. Box 161400, Orlando, FL, 32816, United States of America, ajoshi@bus.ucf.edu

1 - Sources and Implications of Stardom: A Study of Star Power in the Motion Picture Industry

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Star power is critical in the industries of creative products, such as movies, music, and television shows. Industry wisdom suggests that stars act as a form of insurance against downside risk. However, academic research, especially those situated in the context of movies, has reported conflicting findings on how stars may influence the commercial success of a product. Stardom, similar to brand equity, is a multidimensional phenomenon. By what mechanism and to what extent stardom may transfer into box office sales are largely unanswered by past research. In this study, we use archival data from movies featuring major Hollywood movie stars to examine the sources of star power. The empirical model is built upon the notion that movie box office sales are not normally distributed. We decompose the source of star power into three dimensions - the ability of stars to generate free publicity, which then helps promote a movie, the financial aspect of star power as captured by the star's past box office record, and the artistic aspect of start power as measured by the star's achievement in awards and award nominations. Among other things, we find that the ability to generate free publicity and a star's past box-office records are good indicators of star power that "draws fans to the theater by their name along". However, the artistic aspect of star power does not have much influence on the box office performance. We further discuss managerial and theoretical implications of the findings and the directions for future research.

2 - Timing of New Products Introduction into Foreign Markets: An Empirical Analysis of Hollywood Movies

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With the increasing globalization of business, a sound international market entry strategy is becoming increasingly critical for the success of new products. Two essential decisions in this regard are international market scope and the speed (timing) of international rollout. Two international entry strategies are commonly practiced. A waterfall strategy is one in which the new product enters multiple countries sequentially. In contrast, a sprinkler strategy involves almost simultaneous entry into multiple countries. We address important research questions related to these issues in the context of the motion picture industry. Which strategy is most commonly practiced by movie studios? How do international entry time windows differ across countries and movies? What are the determinants of the time between U.S. and international releases? What are the effects of country characteristics and studio characteristics on inter-release time? We develop predictions relating to these questions and test our predictions using a dataset comprising the top 30 worldwide grossing Hollywood movies during 2003-2006. The data contain movie characteristics such as budget and genre, release dates and total box office revenues in about 30-70 countries, and country specific information such as GDP, piracy rate, and Internet penetration. We develop a system of two equations, in which country revenues and international window are the dependent variables and estimate the model by three-stage least squares. Our preliminary results show that international time windows have decreased over time. Movies with higher prospects for success such as those with big budgets and sequels are released faster into foreign countries. Surprisingly, piracy rates are unrelated to the international time windows.

3 - Diffusion-based Modeling of Movie Type Success: An Evolutionary Perspective

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Most Hollywood studios manage movie portfolios comprising multiple projects of various types and it is essential for a studio's success to carefully consider the risks of and returns on these specific movie types (Eliashberg, Elberse, and Leenders 2006). Marketing researchers have extensively studied factors contributing to the box-office success of individual movies while virtually ignoring movie type as the unit of analysis. To address this gap, we define and study stochastic processes by which the types of movies (e.g., genre, storyline, MPAA rating, etc.) vary. Specifically, we model the rate of change for a type and selective advantage of each category within a type, to provide insight into the role of movie type in the success of a movie. We adopt the influential Wright-Fisher model from population genetics, a generic framework that has been effectively used to depict dynamics of similar processes in evolutionary context. The model is very flexible and can accommodate any user defined type variable. The present research looks at movie genre as the focal type since prior research has suggested that it might be predictive of box-office performance (e.g., Desai and Basuroy 2005). Besides introducing a novel MCMC algorithm and validating the model using simulations, we provide a Bayesian estimation procedure using data on weekly screen counts and genres of 547 movies that played in theaters in year 2005. We further examine whether the success of a genre depends on the seasonal fluctuations of the motion picture industry. The implications of the model with regard to movie studios' portfolio management strategies and possible extensions to similar industries are discussed.

4 - Adapting to Succeed? Leveraging the Brand Equity of Bestsellers to Succeed at the Box-office

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A large number of movies released are based on bestselling fictional books, and yet there has been no research to date that investigates the success of adapting bestselling books into movies. We know from past research in marketing that brand extensions often work through leveraging the brand equity of existing brands (Aaker and Keller 1990), and we propose that the same strategy is being used when books are adapted to movies. We seek to investigate whether movies based on successful books are more likely to succeed than regular movies, and what the moderators of that success are. We use a multimethod research approach to test the validity of our hypotheses. First, we conduct a series of experiments to determine the moderators and their impact on evaluation of movies based on books. Then, we provide external validity to our experimental findings by analyzing a large database of publicly available data. We gain additional insights regarding adapting bestsellers to movies through the data analysis.

■ TC07

Grand A

Choice-Methods and Data

Chair: Terry Elrod, Professor, University of Alberta, 3-23 School of Business, Edmonton, AB, T6G 2R6, Canada, terry.elrod@ualberta.ca

1 - Using Auxiliary Data to Estimate Common Utility Origins with Discrete Choice Models

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Discrete-choice conjoint analysis is often used to measure subjects' preference structures. A limitation is the loss of inter-subject comparability. The estimated utilities are invariant under linear transformation due the identification constraints imposed on logit and probit models. As a result, alternatives can be sorted in terms of preference within subjects, but subjects cannot be sorted based on their preferences. The reason is that their preferences are not measured on a scale with an origin common to all subjects. We propose a Hierarchical Bayes model that allows inter-subject comparisons. It uses auxiliary data to identify a common origin. It combines auxiliary data - here ratings - and the discrete-choice data and adjusts the choice task partworths to take into account differences in rating scale usage. Our model moves the identification constraints from the discrete-choice parameters to the ratings model, making it possible to recovering a common origin and scale. We illustrate its application using data from a MaxDiff study and data from a choice-based conjoint study. We show we are able to segment subjects according to the intensity of their preferences. Using the conjoint data we jointly estimate subjects' thresholds for the buy/no buy decision and the value of an outside good. These are confounded using conventional methods. As a result of our approach we are able to identify subjects who are better prospects for buying a new product.

2 - Reality Check: Combining Survey and Market Data to Estimate Choice Models

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Discrete-choice models estimated using hypothetical choices made in a survey setting (i.e., choice-based conjoint) are widely used to forecast the effects of product design and marketing mix decisions. Survey methods allow the researcher to estimate preferences for product features that do not yet exist in the market. However, parameters estimated from survey data often show marked inconsistencies with the marginal effects that can be inferred from the market. Thus models based on parameters inferred from survey data may be less useful for forecasting and decision making. Practitioners often adjust survey-based choice models so that they more accurately predict market share, but existing calibration methods are ad hoc and may change parameter values in ways that are inconsistent with observed market data. We propose a new approach that produces more accurate parameter estimates by combining individual-level purchase data from the market with survey data in the formal estimation process. The proposed method relies on a general framework for combining two or more sources of choice data to estimate a hierarchical discrete-choice model. Under this framework, we relate the preferences of consumers purchasing in different settings through a set of demographic (including product-use) variables. We assume that the model relating demographics to preferences is the same across all data sets, but by incorporating demographic variables we can accommodate differences in choice behavior across the data sets that are driven by differences in the observed characteristics of the individuals. Bayesian missing data techniques are used to handle the situation where different demographic variables are collected in each data set.

3 - Modeling Cognitive Complexity to Predict Consideration Sets

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We discuss an approach for estimating cognitively-simple non-compensatory models of consideration-set decisions. We estimate disjunctions-of-conjunctions (DOC) decision rules that generalize existing decision models such as disjunctive, conjunctive, lexicographic, and subset conjunctive rules, and are rich enough to explain any consideration set. Our estimation approach is based on evidence that consumers balance cognitive effort and decision accuracy when deciding on which products to consider. This approach is consistent with statistical machine learning principles which posit that the predictive ability of a model is enhanced by balancing fit to the estimation data and complexity. We present field experiments which suggest that the proposed decision models and estimation method identify cognitively-simple decision rules that predict consideration sets significantly better than existing non-compensatory as well as compensatory methods. We also discuss field experiments which indicate that these results are robust with respect to the type of respondents, the format of the questionnaires used to elicit consideration sets, and the way we model cognitive complexity. Finally, using simulations, where we know the true underlying decision process, we show that it may be possible to infer the decision process directly and non-intrusively from data.

4 - Partial Profile Choice Experiments

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Partial profile choice experiments (PPCEs) are a means for estimating many conjoint part worth utilities. PPCEs constrain alternatives in each choice set to differ on a subset of attributes that changes systematically across choice sets. This talk discusses the role of PPCEs in product development, compares them with full profile choice experiments (FPCEs) in four studies, and illustrates their use in a setting for which a FPCE is impractical. The comparisons show that PPCEs are a much more efficient means for estimating main-effects models. However, PPCEs are ill-suited to the investigation of interaction effects or to the inclusion of a "choose none" alternative. Thus the PPCE shows promise as a complement to its full profile counterpart, particularly for screening the large numbers of potential new product attributes that are suggested by focus groups, brain-storming sessions and content analyses of customer comments. We also introduce and motivating "simplified FPCEs" — full profile choice sets in which the alternatives have identical levels for many of the attributes.

■ TC08

Port Hardy

Mood, Brand Familiarity, and Decision Frames

Chair: Nevena Koukova, Assistant Professor of Marketing, Lehigh University, 621 Taylor Street, Bethlehem, PA, 18015, United States of America, nkoukova@lehigh.edu

1 - The Effect of Weather on Consumer Spending

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This paper reports the results of three studies which provide strong evidence that weather can impact consumer spending. In our first study, we examined daily sales data from a independent retail store specializing in tea and related accessories. We found main effects for average temperature, snow fall, humidity, as well as an interaction between average temperature and sunlight. The second study utilizes panel data - we recorded participants' daily consumption behavior for a variety of regularly purchased products over four weeks. Here, we find that sunlight has a negative influence on negative affect: as sunlight increases, negative affect decreases (this replicates the general finding of previous research), but sunlight does not have a significant effect on positive affect. In addition, we find that as negative affect decreases, tea consumption increases; however, positive affect does not impact tea consumption. In the third study, we examined the effect of sunlight on consumers' mood and willingness to pay for a product in a laboratory setting. Sunlight was manipulated through the use of a sun lamp. We demonstrate that negative affect mediates the effect of sunlight on consumer spending. We find that this effect exists with a variety of products — green tea, juice, chocolate milk, gym memberships, airline flights, and newspaper subscriptions. Overall, across a variety of methods and types of data, we find that weather, especially sunlight, influences retail sales, and that negative affect mediates the effect of sunlight on consumer spending.

2 - Mood Matching: The Importance of Fit Between Moods Elicited by TV Programs and Commercials

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We examine the effects of program-induced moods on liking for commercials that elicit positive or negative moods. Previous research suggests that TV viewers have more favorable attitudes toward commercials when they are in a happy mood than when they are in a sad mood. Drawing on role fulfillment evaluation theory, we hypothesize that TV viewers have more favorable attitudes toward commercials that support moods established by programs than toward those that break established moods. Our hypothesis leads to the novel prediction that, during a sad program, TV viewers will like sad commercials more than happy commercials. We find support for this prediction in two experiments. Furthermore, we hypothesize that role fulfillment evaluation theory makes accurate predictions when people are likely to have mood expectations during a TV viewing experience, whereas mood as information theory makes accurate predictions when people are unlikely to have mood expectations during a TV viewing experience. We find support for this hypothesis in experiment 2.

3 - Not All Brands are Alike: The Role of Brand Familiarity in Product Placements

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The practice of directly embedding brands into entertainment programs has increased to such an extent that agencies now have the capacity to develop products for helping brand managers optimize decisions about placement strategies. For example, in 2007, Nielsen launched its "Place/Value" software that allows managers to sift through menus of placement options, and to configure and compare the forecasted effects of potential placements of their brands. Research on product placements tells us a great deal about the delivery of the actual program in achieving effectiveness, for example how brands can be placed on the big screen, how often they can be mentioned in the script, and how they can be connected to the storyline. Apart from the formats in which product placements can take, however, we lack understanding of questions that explicitly involve the brand itself, for instance, what brand-level characteristics might interact with the delivery of the placement? In this research, we focus on the fundamental characteristic of brand familiarity, and delineate its function and impact on how consumers respond to product placements. In particular, we hypothesize that consumer responses to product placements will be more favorable when the embedded brand is highly familiar. In a series of experiments, we examine the effects of different levels of brand familiarity on consumer evaluations of the program and its characters, the broadcasting station, as well as the brand itself.

4 - Choosing Versus Rejecting Options for Products: A Mental Simulation Perspective

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Consumers' choice decisions are often framed in terms of whether product options are selected or rejected, and this has been shown to systematically affect their choice. For example, when participants were asked to add desired product options to a base car model (additive option framing) they chose fewer options and paid less for options than when participants were asked to delete undesired product options from a fully loaded car model (subtractive option framing; Park, Jun and McInnis 2000). Extending this point of view, we examine how the framing of the choice task triggers certain mental representations that influence the selection of options at the decision making stage. Drawing upon the theory of mental simulation (e.g., Taylor, Pham, Rivkin and Armor 1998), we suggest that when asked to add options to a base model, consumers go through a step-by-step process of deciding whether to add each of the individual options, representing a process-based simulation. Conversely, when asked to delete undesired options from a fully loaded model, consumers are focused on the ideal fully loaded model and evaluate the decrease in overall utility following the removing of options, representing an outcome-based simulation. Accordingly, we theorize that the mental representation of events induced by the option framing task leads to varied outcomes such that consumers facing an additive framing task generate more process-oriented thoughts and fewer outcome-oriented thoughts as compared to consumers facing a subtractive option framing task. This focus on the process versus the outcome results in the choice of fewer options under additive vs. subtractive option framing. We further illustrate the process by examining the role of justification in the effect of option framing on choice.

■ TC09

Junior B

CRM-System Implementation

Chair: Anita Basalingappa, Assistant Professor, Mudra Institute of Communications, Ahmedabad (MICA), A-61, Satellite Center, Vastrapur, Ahmedabad, India, anitab55@gmail.com

1 - Alignment of Customer Intention Value Networks with Corporate Performance Management

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A major driver for efficiency when managing the company's customer relationships is the alignment of core competencies with customer processes. Two main problems can be identified for today's failures of Customer Relationship Management (CRM) projects [Horstmann02; Geib et al.05]: These projects too often only focus on the internal processes directly targeting customers without knowing the customers¥ processes from their point of view. The focus on processes such as marketing, sales, or services often neglects the dependency on performance relevant core processes of the organization. These core processes reflect the core competencies of the company and play an important role on the one hand for gaining competitive advantage and on the other hand for an efficient production. Thus, the main challenge for an efficient CRM is the alignment of customer processes from an "outside-in" perspective with the core competencies of the company, reflecting the "inside-out" perspective. The alignment process has to ensure that the customer perceives flexibility and the company can at the same time build on its core competencies without having to constantly change the process architecture. The research approach focuses on the analysis of the process architecture based on criteria integrating the outside-in and the inside-out perspective. Customer intention value networks [Baumoel/Winter01] serve as models for the outside-in perspective and process models deal with the inside-out perspective. The research is based on an empirical study in cooperation with a medium-sized bank and has been started in August 07 with a series of interviews with 125 corporate customers. The results to be presented show the possibilities of profiling customers with respect to their intention value networks.

2 - Customer Pyramid Analysis and Enhanced CRM in the Consumer Packaged Goods Industry

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The ultimate goal of any business is to increase shareholder value by delivering sustainable, above-average growth in revenues and profitability. Companies strive to attain this goal through value-creation strategies using tools like Customer Relationship Management or CRM. Customer Relationship Management refers to methodologies, strategies, software, and other web-based capabilities that help an enterprise organize and manage customer relationships. Application of CRM concepts in the consumer oriented industries has revolved around the Customer Pyramid Model where customers are classified into sections of a pyramid based on one or more attributes. In this paper we present and analyze the application of CRM concepts by manufacturers of consumer packaged goods in the grocery industry. Since a manufacturer of packaged grocery products does not have direct visibility to the end consumer in the grocery stores, it looks at CRM from two different perspectives: the retailers and the end customers. A key marketing resource allocation issue is how much to spend on trade promotion activities and how much to allocate for consumer promotion. This paper proposes a creative use of the customer pyramid model as one component of the manufacturer's overall trade management process, combining the "push" effort through the retail channels with the "pull" effort through consumer promotion activities. The paper discusses the potential analyses that can be performed on this data and how the results can be transformed into actionable plans. Finally the paper addresses some of the added benefits the anufacturer realizes by adopting the CRM approach, including enhanced forecasting and better human resource management.

3 - Effectiveness of CRM on Customer Satisfaction and Performance in the Internet Banking of Taiwan

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Currently there is an inevitable trend to conduct businesses via internet (E-Commerce), and as a consequence, a careful customer management when doing internet based business is needed. As a measure to develop stronger interaction with their customers, and offer them better experience and satisfaction, Customer Relationship Management (CRM) has been proposed. The relationship between CRM and customer satisfaction remains an interesting inquiry in both, academic and industrial communities. In this research, we will study the effectiveness of CRM towards business performance and customer satisfaction in the context of internet banking. Weíll adopt three stage processes of CRM: establishing, to find suitable consumer bases and effective ways to approach them; enhancing, to measure and improve the customer satisfaction; and terminating, to take corrective measures to revive the consumer relationship. These processes will be modified in the context of internet banking, so the positive activities on each stage can develop successful CRM in internet banking. Our argument is that, the implementation of CRM in the internet banking, does not only regard with providing better customer satisfaction, but also needs to consider possible changes from business performance under the internet based context. The outcome of our research is to provide a conceptual model to analyze the effectiveness of CRM in internet banking, and to study how CRM works from the field.

4 - Role of Relational Bonds in the Manifestation of Customer Loyalty

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This paper presents the role of relationship marketing practices - relational bonds in the manifestation of customer loyalty stages. The contribution of this research is the role of social bonds positively impacting loyalty development at cognition stage and the role of customization bonds positively impacting loyalty development from an attitudinal stage- conation to action stage. The results are based on empirical data based on four sectors - financial institution, bank, telecom, and auto sector. LISREL 8.5 version software was used to test the proposed model. Empirically tested models of manifestation of customer loyalty and role of CRM in building customer loyalty are contributions to literature.

■ TC10

Junior A

Dynamic Aspects of Competition

Chair: Benaissa Chidmi, Assistant Professor, Texas Tech University, Mail Stop 42132, Texas Tech University, Lubbock, TX, 79409, United States of America, benaissa.chidmi@ttu.edu

1 - On Monopolist Optimal Dynamic Marketing Mix Policies for the Diffusion of New Subscriber Service Innovations

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This paper introduces and analyzes a general diffusion model of a monopolist for new subscriber service innovations in a dynamic setting. Optimal pricing and advertising policies are analytically characterized in the presence and absence of cost learning effects, price adjustment costs and discounting for future profits. Using the methodology of optimal control theory, the optimal marketing mix policies pertaining to new subscriber service innovations are compared to those related to new product innovations. The analytical research findings reveal that while the rules for arriving at the optimal advertising to sales ratio are similar for both types of innovations, optimal marketing mix policies appear to be different. On the empirical side, several competing diffusion models related to two newly introduced subscriber service innovations have been estimated and compared using non-linear procedures. Empirical research findings suggest that for the considered two case studies, service charge and advertising expenditure affect the diffusion process in such a way to bring about an increasing optimal control pricing trajectory and an optimal control decreasing advertising trajectory over time, in support of the analytical findings of the research.

2 - An Empirical Model of Product Entry and Pricing

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This research investigates the new product strategy of oligopolistic firms. Every year multi-product firms launch in the market thousand of new products. The demand-supply equilibrium analyses proposed so far in literature, however, have almost exclusively modeled firms' pricing decision, ignoring product introduction and assortment choice. In this study we estimate a dynamic supply system where firms make product introduction and price decisions. Our model produces more realistic counterfactual analyses than standard models, because it allows firms to reoptimize their product portfolio depending on the new market conditions. We compare our results with those produced by standard analysis in the context of mergers policy.

3 - Late Mover's Strategic Quality Decisions

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There has been a vast literature on early movers. Previous analytical studies employ a game-theoretic framework and show that the entry order enables the early movers to preempt not only the critical resources, but also product quality levels that attract most customers in the market. There has been a sufficient accumulation of knowledge on first mover advantages, but, surprisingly, not much about later entrants. We start this investigation with a simple question: what makes late entrants choose either lower or higher quality in entering a new market? When we sampled a few entry cases, we found some empirical regularities in which later entrants enter the market with a product of lower quality. In this study, we try to answer the question using competing firms' asymmetry in a sequential game framework.

4 - Time-varying Duopoly Competition in Supermarket Industry: The Case of Seattle-Tacoma Milk Market

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The Seattle-Tacoma consumers have been paying higher retail prices for fresh milk than consumers in other Western states of United States. For instance, the retail price for whole milk averaged $3.27/gallon during the period of April 1999- April 2003 in Seattle-Tacoma, while it did not go beyond $2.86/gallon in most of the large metropolitan areas in Western U.S. during the same period (Carman and Sexton, 2006). In addition, retail prices in Seattle-Tacoma do not respond similarly to farm price increases and decreases. Supermarkets are prompt to pass on to consumers any increase in farm price, while they do not pass or lag behind when farm price decreases. Understanding the pricing conduct of the supermarket chains in Seattle-Tacoma is a key issue toward explaining the level of fluid milk retail prices as well as the relationship between these prices and the farm price. A practical question to answer is related to the level of market power supermarket chains have to set fluid milk retail prices beyond the competitive level, and how their strategies change over time. The objective of this article is, therefore, to test for and measure the market power of supermarket chains in setting fluid milk prices in a time-varying duopoly setting. In this paper, we examine the pricing conduct of two supermarket chains using retail supermarket-level data on sales and prices from Seattle-Tacoma market area. We follow the approach developed in Kadiyali et al. (1996) by comparing Bertrand-Nash pricing strategy against Stackelberg pricing strategy, allowing for various leader-follower alternatives and for time-varying conduct.

■ TC11

Port McNeill

eCommerce – MultiChannel

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1 - Search Versus Word-of-Mouth: Evidence from an Online Retailer

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New buyers arrive at websites through either self-directed search or because of word-of-mouth recommendations. The arrival propensity for buyers from these two sources is influenced by the attractiveness of the website relative to the option of buying in the local offline market. Two institutional local market features - the local sales tax rate and the time a local customer must wait for products to be shipped are especially relevant to the online-offline trade-off. In order analyze this trade-off we examine the new buyer arrival process for 1800diapers.com. In particular, we develop a hierarchical bivariate Poisson model to investigate the effects of local sales tax and shipping time on the emergence of search and word-of-mouth buyers. We conclude that geography in the form of local market conditions still matters for online retailers despite the common claim of the "death of distance" for frictionless commerce: search buyers are more likely to emerge in regions with high local sales taxes; fast shipping is more important in generating word-of-mouth buyers. Our estimates suggest that search and word-of-mouth buyers would be predicted to decrease by about 24% and 13%, respectively, if local offline sales taxes were eliminated. Also, one day shipping increases search and word-of-mouth buyers by 57% and 77%, respectively, in comparison with regions that must endure four day shipping. We conclude that consumers' online-offline tradeoffs lead to substitution between online retail and offline retail and thus online retailers are still subject to local geographical constraints. The managerial implications for online retailers are discussed.

2 - The Impact of Introducing the Internet Channel on Vertical Strategic Interaction

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After the emergence of the Internet, it is always a main issue for a firm whether it should introduce the Internet to be another distribution channel. Most previous papers focus on the manufacturer's decision, but this paper further includes the retailer's. Thus, the purpose of this paper is to study the manufacturer and the retailer's distribution channel and pricing strategies to capture the interactions among them. We construct a game-theoretic model that there are a manufacturer and a retailer in the channel, and both of them can decide to add the Internet to their distribution channel or not. In the basic model, we consider the case where the consumers always have lower valuation if they purchase the product on the Internet. Our major findings include the following: (1) We find that when the manufacture has larger bargaining power relative to the retailer, the manufacturer will use the Internet to serve the consumers with lower valuations, and then the effect of price discrimination can be achieved. As to the retailer, it is indifferent to use the Internet or not. (2) When the retailer has larger bargaining power relative to the manufacture, the manufacture can not implement price discrimination by the Internet, and thus it attends not to introduce the Internet. However, even if the retailer introduces the Internet, there may be no sales form the Internet. In other words, the Internet may just a strategic tool to prevent the manufacturer from using the Internet.

3 - Customer Evolution in Sales Channel Migration

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We study how the consumer decision process for channel choice and response to marketing communications evolves for a cohort of new customers. We assume a newly acquired customer's decisions are described by a "trial" model, but the customer's choice process evolves to a "post-trial" model as the customer learns his or her preferences and becomes familiar with the firm's marketing efforts. The trial and post-trial decision processes are each described by different logit choice models, and the evolution from the trial to post-trial model is determined by a customer-level geometric distribution that captures the time it takes for the customer to make the transition. We utilize data for a book retailer who sells in three channels - retail store, the Internet, and via catalog. The model is estimated using Bayesian methods that allow for cross-customer heterogeneity. This allows us to have distinct parameters estimates for a trial and an after trial stages and to estimate the quickness of this transit at the individual level. The results show for example that the customer decision process indeed does evolve over time. Customers differ in the duration of the trial period and marketing has a different impact on channel choice in the trial and post-trial stages. Insights from this study can help managers tailor their marketing communication strategy as customers gain channel choice experience.

4 - Strategic Online Channel Adoption

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Online experts increasingly compete against traditional, brick-and-mortar experts who provide face-to-face services. Recently, traditional experts have also started to provide online services and discount alternatives. In this paper, we examine the strategic role of channel adoption in expert markets using a duopoly setting. We also examine the optimal level of quality that the experts should offer. We find that in equilibrium only one expert will choose to provide high quality specialized services. Interestingly, we find that one expert will choose to be the lower quality expert, whom we call a generalist, even when there are no cost advantages to being a generalist relative to being a specialist. We find that the generalist will have a higher market share than the specialist. Our model shows that not adopting the online channel when there is no threat of entry by an outside online expert can be a profit maximizing strategy. However, the threat of entry by an online entrant can lead to traditional experts offering online services even if entry does not occur. Furthermore, we show that traditional experts may introduce online services in order to deter online entry by an online expert. Thus, we establish an entry deterrence or defensive role for online channel adoption in the markets for expert services. We investigate the implications of these strategies on consumer surplus and total welfare. We find that online channel adoption always increases consumer surplus, although its effect on the total welfare may be both positive and negative depending on the intensity of competition. Interestingly, our results show that entry deterrence strategies in expert markets may actually improve consumer and social welfare.

■ TC12

Parksville

Bundling and Pricing

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1 - Influence of Nonlinear Tariff Structures on Service Providers' Profitability

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Service providers maximize their profit by defining optimal prices for their service, frequently using nonlinear pricing schemes, e.g. two-part tariffs (Cheng and Koehler, 2003; Danaher, 2002). The prices of the tariffs have a significant impact on the service provider's profit because they simultaneously influence the customer's tariff choice as well as the quantity demanded depending on the chosen tariff. Additionally, service providers usually offer different tariff structures that contain several nonlinear tariffs and allow consumers to pick one of the tariffs (Danaher, 2002). The number of tariffs in the tariff structure also plays an important role. More tariffs allow to better segment the market, but increase the administrative burden and require higher marketing efforts. There are several empirical studies that model the consumer behavior under a menu of optional tariffs (Iyengar, 2004; Iyengar, Jedidi, and Kohli, 2007; Lambrecht, Seim, and Skiera, 2007; Sundararajan, 2004). But research, which is based on an analytical large-scale service providers' profit maximization model determining (i) the optimal number of tariffs in the tariff structure, (ii) the optimal types of tariffs, and (iii) the optimal prices of each tariff in the tariff structure, is very limited. In our paper first we present a large-scale service providers' tariff structure optimization problem as a mixed-integer nonlinear programming model, for which we apply the simulated annealing method. Then, we examine the influence of the different tariff structures on service providers' profits by i) conducting a numerical examination and ii) providing managerial implications about the optimal number of tariffs and their characteristics in the tariff structure.

2 - Optimal Pricing in the Wireless Service Industry

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In this paper we study three-part tariffs under product bundling, a pricing strategy commonly observed in many industries. We develop a model to understand (1) Under what conditions will three-part tariffs generate higher profit for firms than other non-linear pricing schemes such as two-part and all-or-nothing tariffs? (2) Under what conditions will product bundling further increase profit for firms under three-part tariffs, i.e., product bundling and three-part tariffs will be strategic complements? (3) How does demand uncertainty change the above two conditions? We find that without demand uncertainty, whether three-part tariffs can generate higher profit or not depends on the ability of a firm to offer multiple plans to price discriminate consumer types, and the relative magnitude between the high type and low type consumer preferences. With demand uncertainty the optimality of different tariffs depends on the relative magnitude of usage shocks between consumer types. When usage shocks of high type consumers are large, three-part tariffs dominate the two other tariffs. Surprisingly, when the usage shocks of high type consumers are small and those of low type consumers large, two-part tariffs dominate three-part tariffs. Bundling will further enhance the profit impact from three-part tariffs when consumers' preferences for multiple products are ranked differently, a result consistent with previous literature under discrete demand assumptions.

3 - Analysis on Preferences for Price Plans of Public Utilities; Case Study About Electricity Price

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Price plans of public utilities, such as electricity, gas, telecommunication and transportation, have been becoming diverse after deregulations in these sectors and IT innovation. For example, constant rate system in internet access and combined contract system in electricity and gas supply are examples of new price plans. Attractive price plans are becoming important to compete for customers toward competitors. And there are substitutability and complementarity among price plans. So it is significant to investigate preferences for price plans. In this study, we propose the analysis method to investigate preferences for price plans. This method is based on competitive market structure analysis. We consider each price plan as one product, and also consider all of price plans provided by each company as products mix. This concept can be called "price plans mix". This method has two steps. In the first step, attributes of price plans are extracted by factor analysis of interests in price plans. In the second step, preferences vector is clarified by regression analysis of preferences and attributes. From these analyses, we can gain price plans' attributes vectors and ideal preference vector in price plans' space. We apply this method to investigate preferences for electric price plans in Japan. We conducted questionnaire survey of electricity customers in Japan, and collected data with 3123 samples. As the analysis result, we confirm that price plans have suitability for life pattern, degree of electricity bill volatility and so on as the attributes. Consequently, we can understand the substitutability and complementarity among price plans. And we can gain implications to develop new price plans and make optimal price plans mix by combination of multiple price plans.

4 - Impact of Customer Knowledge Heterogeneity on Bundling Strategy

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We consider a marketer of components who can select one of three alternative pricing strategies: (1) Pure component strategy (customer can only buy the components individually) (2) Pure bundling strategy (the components must be purchased together), and (3) Mixed bundling strategy (customer may buy a component individually, or buy the component bundle). We assume that customers vary in their knowledge of components. A high-knowledge customer can determine with greater certainty whether a given component is useful to her. Consequently, more knowledgeable customers have higher variability in their reservation price of a component. An empirical study we conducted supports this position. We show that three factors determine the profit maximizing pricing strategy: marginal cost of components, the distribution of knowledge over the customer population, and the relative sizes of customer segments where each segment is interested in the same set of components. Using an analytical model, we identify the precise conditions where each of the three pricing strategies maximizes profit. Managerial implications for a monopolist marketer, implications for competitive strategy, and directions for future research are discussed.

■ TC13

Orca

Branding

Chair: R Venkatesh, Associate Professor of Business Administration, University of Pittsburgh, Katz Graduate School of Business, 332 Mervis Hall, Pittsburgh, PA, 15260, United States of America, rvenkat@katz.pitt.edu

1 - Are Store Brands 'Brands'? Estimating Store Brand Equity from Aggregate Data

Paul Nelson, Professor, University of Rochester, Simon Graduate School of Business, Box 270100, Rochester, NY, 14627, United States of America, paul.nelson@simon.rochester.edu, Sudhir Voleti

We utilize a revenue multiplier measure of brand equity to estimate the equity of both national and store brands using retail chain level data. Brand equity is defined as the incremental brand effect on product value and is determined as the brand-specific component of revenue shorn of observed attributes (SKU, sub-brand and brand level marketing mix elements as well as retail chain characteristics) and systematic unobserved factors (SKU as well as retailer specific effects). Brand equity estimates for all national and store brands are available since our methodology sidesteps the need for a baseline brand with normalized brand equity. We empirically calibrate the methodology on two years of monthly SKU level carbonated soft drinks data for eighteen brands (including five store brands) in five food and grocery retail chains. We find that two of the five store brands have statistically significant brand equity.

2 - Product Repositioning and Brand Inertia: The US Automobile Market

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It is well-known that a brand position in a perceptual space is "sticky." However, few studies thus far have attempted to measure the degree of stickiness, let alone measuring the effects of marketing efforts on the phenomenon. This is a critical issue for a brand manager who tries to reposition its product in consumers' mind. This study investigates factors affecting brand inertia in brand positioning changes over time. It is hypothesized that brand familiarity becomes a moderator for the effects of marketing efforts in repositioning a brand. A longitudinal perceptual map is generated to track changes in brand positions of 24 major automotive brands competing in the U.S. between 1997 and 2005. The dataset provided by a leading marketing research firm includes the perceptions and brand preferences of thousands of likely car buyers, every year. The direction and the magnitude of changes in a brand's position can thus be tracked and quantified. The effects of marketing efforts on changes in brand positioning, moderated by brand familiarity, are then estimated using an econometric model. The results will help brand managers to optimally allocate marketing resources for effective brand repositioning.

3 - Nation Equity in Personal Computer Purchases in China

Junhong Chu, Assistant Professor, NUS Business School, National University of Singapore, Department of Marketing, BIZ 1 Building #02-13, 1 Business Link, Singapore, NA, 117592, Singapore, bizcj@nus.edu.sg

A huge literature has documented the significant effects of country-of-origin (COO) on product evaluations. However, nearly all such research has relied on lab data or field surveys. Since consumers' self-reported purchase intentions do not perfectly predict their future purchase behavior, the findings on COO effects based on stated preferences may not apply in actual purchases. We study the existence, pattern, magnitude & dynamics of COO effects in China's PC market with actual purchase data. We quantify the monetary value of nation equity resulting from consumer ethnocentrism or import predilection, and the associated price premiums or price concessions. We further test the consistency of purchase-based COO effects with behavioral theories. We use structural modeling & counterfactual experiments to accomplish the empirical task. The empirical analysis uses quarterly PC prices & sales across four customer segments (households, education, government & businesses) in China from 1Q1995-2Q2007. Our main findings are: (1)COO effects are widespread and significant in PC purchases in China. (2)COO effects in PC purchases are multi-directional. Both consumer ethnocentrism & import predilection are observed among Chinese PC buyers. (3)The COO effects in China's PC market are dynamic, changing constantly over time. (4)The pattern, mag-

nitude & dynamics of COO effects differ substantially across the four customer segments. (5)There exists both positive & negative nation equity for China. Chinese firms can extract price premiums over some foreign countries, but have to make price concessions over some others. (6) China's nation equity in the PC market has been improving. (7)COO effects shown in actual PC purchases are partially consistent with behavioral theories.

4 - The Types, Mechanisms, and Effectiveness of Co-branding: A Conceptualization & Managerial Guidelines

R. Venkatesh, Associate Professor of Business Administration, University of Pittsburgh, Katz Graduate School of Business, 332 Mervis Hall, Pittsburgh, PA, 15260, United States of America, rvenkat@katz.pitt.edu, Rabikar Chatterjee, Casey Newmeyer

Co-branding, the strategy of marketing brands together, is gaining prominence in the marketplace. AT&T's iPhone-based service plans, Airbus A380 airplanes with Rolls-Royce Trent engines, and FedEx-Kinko's copy-and-ship centers are among the more recent manifestations of the strategy in B2B and B2C contexts. Our study rests on the premise that while an exciting stream of articles is beginning to emerge on the topic, the studies differ in the type(s) of co-branding that they consider, restricting the scope of their findings. In a related vein, greater clarity is needed on the effectiveness of alternative types of co-branding under a diverse set of product/market conditions. Against this backdrop, our study first draws on an extensive review of real world examples and extant research on co-branding to delineate the types, distinguishing features and the mechanisms that shape the power of co-branding. Our typology contrasts six types of co-branding based on the extent to which the brands are integrated in form and function. Second, our study draws on representative product, market and partnership characteristics to propose guidelines for co-branding, providing conditions that favor or dilute the use of the strategy from the standpoint of the alliance and the individual partners. The study's limitations and directions for further research are discussed.

■ TC14

Finback

Advertising Strategy

Chair: Dan Horsky, Professor, University of Rochester, CS-3-210 Carol Simon Hall, Rochester, NY, 14627, United States of America, dan.horsky@simon.rochester.edu

1 - On the Effect of Diversity in Consumer Tastes and Informative Advertising on Product Line Design

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Consumer tastes are diverse in many product categories and firms offer multiple products to satisfy the diverse needs. In designing its product line, a firm strives to maximize its profits by attenuating cannibalization within its own product line but gaining sales from its competitor. In this paper we propose a novel model of competition between the product lines of two firms in a horizontally differentiated market. Using the framework, we analyze how diversity in consumers' tastes and informative advertising impact a firm's optimal product line design and prices.

2 - A Model of Image Advertising

Dina Mayzlin, Associate Professor, Yale School of Management, 135 Prospect Street, P.O. Box 208200, New Haven, CT, 06520, United States of America, dina.mayzlin@yale.edu, Jiwoong Shin

In November 2004, American Express launched a new campaign called "My Life. My Card." The first spot featured Robert De Niro reciting a "love letter" to New York City. The advertising ends with the words, "My life happens here. My card is American Express." While the advertising is very striking in its execution (it features images of Ground Zero, for example), it does not directly mention any of the benefits of owning an American Express card, such as the card's excellent rewards program. Hence, despite its ability to put forth compelling economic arguments in favor of its product, Amex chose to air a purely "image-based" advertising. Here, we address the question of why and when a firm may choose to expend resources on vague image-based advertising as opposed to a more informative attribute-based message. We show that image advertising can serve as a signal of quality in the sense that the high quality firm engages in image advertising, while the medium quality firm engages in attribute-based advertising. This seemingly counter-intuitive result stems from the fact that the high quality firm purposefully withholds information from the consumer in order to motivate her to engage in own search about product quality, which is likely to result in a positive signal. We contrast this to the equilibrium where both the medium and the high type engage in attribute-based advertising. Therefore, the advertising message is important in enabling signaling; in other words, some ways of "burning money" are more effective than others.

3 - A Positive Theory of Negative Advertising

Mitchell Lovett, PhD Student, Duke University, Fuqua School of Business, 1 Towerview Dr., Durham, NC, 27708, United States of America, mjl5@duke.edu, Ron Shachar

This study examines the theoretical foundations of negative advertising. Firms can improve their standing (profits, stock value etc) either by becoming more attractive to their (target) audience (e.g., positive ads) or by making their competitors less appealing (e.g., negative ads), yet few research studies in marketing have examined the theoretical foundations of firm decisions to go negative or positive. We develop a theoretical model of negative advertising and analyze it empirically. We study negative advertising decisions in a context in which negative ads are prevalent in political campaigns. Advertising in political campaigns presents an interesting empirical regularity: the closer the political race, the higher the proportion of negative ads. Our theoretical model explains this empirical regularity and links multiple observations about close races into a coherent story. In the theoretical model two candidates compete for votes from three types of voters. Voters decisions are based on what they know about candidates' good traits (e.g., effective manager) and bad traits (e.g., performs badly under pressure) and voter types differ in their initial knowledge. Each candidate decides how to divide her budget between ads that presents her good traits (i.e., positive advertising) and her opponent's bad traits (i.e., negative advertising). We show that in equilibrium two main factors determine the proportion of budget dedicated to negative ads — the size of the budget and the level of voters' prior knowledge. We then test the model and its predictive power using data on elections for US House of Representative in 2000, 2002 and 2004.

4 - The Advertising Agency Selection Contest: An Auction with Bi-dimensional Bidders

Dan Horsky, Professor, University of Rochester, CS-3-210 Carol Simon Hall, Rochester, NY, 14627, United States of America, dan.horsky@simon.rochester.edu, Sharon Horsky, Michael Landsberger

The Advertising Agency Selection Contest: An Auction with Bi-Dimensional Bidders Dan Horsky (Presenter), Sharon Horsky, Michael Landsberger In this paper we elaborate on how a firm ought to conduct a contest among full-service advertising agencies to identify the specific agency offering the best combination of creative and media services. At first glance, this contest may seem like a traditional auction, in which the bidder that offers to perform the required tasks for the least money wins the contract. However, in contrast to the traditional auction where bidders incur only one cost, if and only if they win the auction, in the advertising agencies' case the bidders face two costs. An upfront contest participation cost, mostly related to the creative side, which is borne by all participants; and a subsequent cost of servicing the account, mainly related to media buying, which is only borne by the winning agency. Moreover, the bidding agencies are heterogeneous in their creative and media skills. This may lead agencies with high creative costs but low media costs to choose not to participate in the contest. We show that it is optimal for the firm to reimburse each of the contest's losing agencies by a certain fraction of their auction preparation expenses. Such a partial reimbursement policy attracts new bidders into participation, and the firm's gains due to the more competitive environment are larger than the reimbursement cost. Evidence is provided that reimbursement is indeed practiced in this industry.

■ TC15

Granville

Marketing Strategy and Firm Performance

Chair: Vinay Kanetkar, Associate Professor, University of Guelph, Department of Marketing and Consumer Studies, University of Guelph, Guelph, ON, N1L1B1, Canada, vkanetka@uoguelph.ca

1 - Wall Street Reaction to Top Marketing Executive Succession: An Event Study Perspective

Rui Wang, PhD Candidate, Penn State University, 406A Business Building, University Park, PA, 16803, United States of America, rxw231@psu.edu, Rajdeep Grewal

Managerial succession, such as succession of top marketing executives (TMEs), represents a unique event with profound impacts on an organization's strategic emphasis, including its marketing focus, strategies, and capabilities. However, this important issue has not received sufficient scrutiny from marketing scholars. As an initial step in research on TME succession, the authors examine stock market reactions to firms' appointment announcements of new TMEs. Adopting an event study approach, they propose a principal agent information signal framework to explain shareholder evaluations in event studies. Specially, they suggest two types of information signals may influence shareholders' (principals') reactions to and evaluations of TME (agent) succession: outcome-oriented (organization performance and marketing accountability) and behavior-oriented (successor origin and marketing experience). They also explore the role of industry heterogeneity to capture the impact of industry on shareholder value. The results from a hierarchical random-effects Bayesian model with 180 TME succession announcements show that the theorized factors influence the value created by TME succession and that significant industry heterogeneity exists in the magnitude of these effects.

2 - The Effect of Customer Based Brand Equity on Financial Analysts

Josip Medjedovic, Research Assistant, International University in Germany, Campus 1, Bruchsal, 76646, Germany, josip.medjedovic@i-u.de, Gordon Thompson, Jochen Becker

Although there is empirical evidence that superior performance on key strategic marketing metrics leads to a superior performance on the capital markets (e.g., Madden et al. 2006; Gruca and Rego 2005, Joshi and Hanssens 2005; Gupta et al. 2004; Libai et al. 2007), researchers so far have only relied on archival designs. This has indeed the advantage of delivering more generalizable results, which are however limited in their ability to enlighten the underlying decision processes of the financial market participants. Given that these decision makers are in many cases recipients of both financial information (as an analyst/investor) and of marketing actions (as a current/potential customer) leads to the assumption that marketing has not only a positive effect on the financial results of a company but also on the appraisal of these performance indicators by analysts and investors (e.g. Lovett and MacDonald 2005). Surprisingly to the best of our knowledge research has not been conducted on that topic. We contribute to this research gap by analyzing the effect of a financial analyst's individual customer based brand equity on the multiple he/she assigns to the earnings of a respective stock to arrive at the target price. Based on the results of focus group interviews standardized interviews with financial analysts are currently being conducted. The results together with actual stock recommendation derived from the I/B/E/S database will be analyzed via a multilevel structural equation model.

3 - Impact of Price Change on Profitability: Theory and Empirical Evidence

Vinay Kanetkar, Associate Professor, University of Guelph, Deparment of Marketing and Consumer Studies, University of Guelph, Guelph, ON, N1L1B1, Canada, vkanetka@uoguelph.ca

How does one determine the effect of price changes on a firm's profitability? In this paper, literature on this issue is reviewed. The econometric literature suggest that the effect of price on profitability is small but statistically significant. In this paper, alternative analytical and statistical model lead to novel approach to predict effect of price, variable cost and quantity changes on firm's profitability. As a by-product of this work, it is possible to estimate price elasticity for a firm using publicly available income statements.

■ TC16

Galiano

Retail Management

Chair: John H Summey, Associate Professor of Marketing & Distinguished Teacher, Southern Illinois University at Carbondale, Department of Marketing Mail Code 4629, College of Business, Carbondale, IL, 62901, United States of America, summey390@aol.com

1 - Risk Perception on Logistics Outsourcing of Retail Chains-model Development and Empirical Verification in Taiwan

Ming-Chih Tsai, Department of Marketing, National Chung Hsing University, 250, Kuo Kuang Rd., Taichung, 402, Taiwan - ROC, mctsai@dragon.nchu.edu.tw, Chun-Hua Liao

This study aims to develop a qualitative risk model to empirically identify the important outsourcing risks of logistical functions using the data of Taiwanese retail chains. Transaction cost theory (TCT) and resourced based view (RBV) were combined to develop risk events. Analytical hierarchy process was used for risk calibration. The valid data of 75 outsourcer chains and 41 in-house chains were collected through a three-stage survey. Outsourcers were further clustered by risk perception using Wards' and K-mean clustering and examined by an ANOVA. Results of outsourcers and in-house chains were compared using nonparametric Spearman rank correlation test. The risk perception increases along with the increase of the number of functions outsourced. Risks related to transaction costs and strategic resources were both significant. Between the three main risks identified, asset risk and competence risk are more seriously concerned than relationship risk. The values of information risk and loss of control were highlighted to account for asset risk, and those of poor competence leverage and poor competence of supporting customer service for competence risk. Finally, in terms of risk priority, the results of the in-house chains were rather similar to those of outsourcers. The risk structure developed herein can be used as a systematic checklist for outsourcing decision. The study fills a gap in the literature, where prior work has seldom used empirical research to compare how well TCT and the RBV predict logistics outsourcing risk, in particular for the distribution side of the supply chain.

2 - When and How Does a Retail Roof Policy Increase Profitability

Xubing Zhang, Asistant Professor, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong - ROC, msxubing@inet.polyu.edu.hk, Yong Cao

The impact of product/brand assortment on consumers~{!/~} choices and the retailer~{!/~}s profitability is an important but complex issue. Current research findings are inconclusive on this matter. It has been demonstrated that a retailer can increase its market share by offering a large assortment, because a large assortment provides more choices to consumers. However, a large assortment can also have a negative effect; consumers may feel confused or overwhelmed when facing too many choices. The ~{!0~}overchoice~{!1~} problem can be solved by appropriate use of a roof policy. Rather than carry all its products under one roof with one retailer brand name (~{!0~}one-roof~{!1~} strategy), the retailer can adopt a two-roof strategy, by which products with different quality/price levels are sorted out and sold under two separate roofs, each with a distinct retailer brand name. In this paper, we propose a theoretical model to investigate how brand assortment, store services, consumer heterogeneity, and the retailer~{!/~}s roof decision may have different impacts on a retailer~{!/~}s pricing and profitability. Managerial implications are discussed.

3 - Campaign in the Wrong Chain? Sources of National Brand Sales at Discount Stores

Barbara Deleersnyder, Assistant Professor, Tilburg University, Warandelaan 2, Tilburg, 5000 LE, Netherlands, B.Deleersnyder@uvt.nl, Oliver Koll

For 135 national brands introduced at six discount chains in Germany, we investigate what part of the sales at the discounter comes from existing buyers, versus what part is obtained from new customers - both from the perspective of the manufacturer and the discounter. Our results show that especially manufacturers benefit from selling through the discount channel: on average, close to 80% of brands' sales at the discounter are from new brand buyers. Discounters typically profit less, as over 70% of national brand sales come from their existing category buyers. Further examination of the substantial cross-brand differences reveals that both manufacturers and discounters will attract more new buyers with brands that enjoy higher customer loyalty. Also, manufacturers are recommended to enter with brands for which market penetration is modest, while discounters benefit from adding national brands in categories where they are currently weak. Finally, manufacturers should try to keep discount prices high, so that price differences with other retailers remain small. Fortunately, also discounters benefit from selling national brands at relatively high prices. To facilitate managers' decision as to which brands to take to a discounter, we propose a forecasting tool to evaluate a brand's ability to obtain its sales from new as opposed to existing buyers should they become listed at a discounter.

4 - New Retail Technology Repatronage Decision

John H Summey, Associate Professor of Marketing & Distinguished Teacher, Southern Illinois University @ Carbondale, Dept of Marketing Mail Code 4629, College of Business, Carbondale, IL, 62901, United States of America, summey390@aol.com, Ramendra Thakur

Providing a positive customer experience is an important factor for the repatronage adoption of new retail technology (e.g., self-check out, payment by finger scanner, price checking scanner). The purpose of this study is to gain insights into the ways in which customers view several of the new retail technologies they many have access to. According to this study, consumer's usage of the new retail technology is influenced by several factors: customer's familiarity with the new retail technology, new retail technology attributes and customer's shopping friction. These factors are presumed to have a positive impact on customer's attitude toward new retail technology, thereby increasing their repatronage intention and repatronage decision. According to National Retail Federation businesses have spend $34.5 billion a year on new retail technologies and that figure is expected to rise (Aversa 2007), but scholarly research appears to be scant in the marketing literature. To fill this gap, our study seeks to understand the antecedents of customers' repatronage decision of new retail technology. In this study six hypotheses were tested for significance using structural equation modeling technique. Results of the analysis indicated that out of the six hypotheses that were tested for significance five hypotheses were significant. The results indicated that customer's familiarity with the new retail technology, new retail technology attributes and shopping frictions are indictors of customer's attitude. On the other hand, customer's attitude was a predictor of their repatronage intension; and repatronage intention was found to influence their repatronage decision. We conclude by considering some managerial implications and directions for future research.

Friday, 8:30am - 10:00am

■ FA01

Junior D

Search Engines and Marketing I

Chair: Kartik Hosanagar, The Wharton School, University of Pennsylvania, 3730 Walnut Street, Suite 500, Philadelphia, PA, 19104, United States of America, kartikh@wharton.upenn.edu

1 - Search Engine Advertising: Pricing Ads to Context

Catherine Tucker, Assistant Professor of Marketing, MIT Sloan School of Management, 1 Amherst St, E440-167, Cambridge, MA, 02142, United States of America, cetucker@mit.edu, Avi Goldfarb

Each search term put into a search engine produces a separate set of results. Correspondingly, each of the sets of ads displayed alongside the results is priced using a separate auction. We investigate how bids for these context-based ads depends on the difficulty of making a match. This contrasts with the existing literature that focuses on the effect of match quality. We examine advertising prices paid by lawyers for 139 Google search terms in 195 locations. Other things being equal, the fewer searches there are on a term, the higher the price. To identify a causal relationship between match-difficulty and prices paid, we exploit a natural experiment in "ambulance-chaser" regulations across states. When lawyers cannot contact a client by mail and matching becomes more difficult, the relative price per ad click is $1.01 higher. We check the robustness of this result by performing a falsification test using a different ambulance-chaser regulation. Our results suggest that prices are higher for context-based ads when the difficulty of both online and off-line matching increases. This highlights that a major reason why search advertising is profitable is because its use of context can monetize the "long tail of advertising" by reducing friction in the matching process.

2 - Quality Signaling and Revenue Implications of Payment Innovations in Internet-Based Advertising: A Theoretical and Empirical Investigation

Siva Viswanathan, University of Maryland, Robert H Smith School of Business, 4313 Van Munching Hall, College Park, MD, 20742, United States of America, sviswana@rhsmith.umd.edu, Chris Dellarocas

An important current trend in online advertising is the shift from traditional, "pay-per-exposure" mechanisms to, allegedly more efficient, "pay-per-action" methods, such as pay-per-click, pay-per-call and, in some cases, even pay-per-sale. While there is a growing stream of research examining sponsored search and other types of online advertising, an important area that has not yet received sufficient attention is the interplay between payment mechanisms and the strategies of firms who choose to invest in such types of advertising. Our objective in this work is to examine how the shift from pay-per-exposure to various pay-per-action mechanisms affects prices and demand, the allocation of advertising slots to different firm types (high or low quality), and the payoffs to the publisher and the advertisers. Contrary to conventional wisdom we find that, under certain conditions, the move to pay-per-action can lead to an increase in prices, a decrease in the average quality of firms advertising in these markets, and a decrease of payoffs for all stakeholders. We further observe that, most current and proposed forms of pay-per-action advertising constitute a conceptually flawed solution to the problem of risk-sharing between advertisers and the publisher in settings where there is two-sided uncertainty. We explore alternative mechanisms with better properties.

3 - An Empirical Analysis of Sponsored Search Performance in Search Engine Advertising

Anindya Ghose, NYU, Stern School of Business, New York, NY, United States of America, aghose@stern.nyu.edu, Sha Yang

The phenomenon of sponsored search advertising is gaining ground as the largest source of revenues for search engines. Using a unique panel dataset of several hundred keywords collected from a large nationwide retailer that advertises on Google, we empirically model the relationship between different metrics such as click-through rates, conversion rates, bid prices and keyword ranks. We use a Hierarchical Bayesian modeling framework and estimate the model using Markov Chain Monte Carlo (MCMC) methods. We empirically estimate the impact of keyword attributes on consumer search and purchase behavior as well as on firms' decision-making behavior on bid prices and ranks. We also conduct a detailed analysis with product level variables to explore the extent of cross-selling opportunities across different categories from a given keyword advertisement. The presence of retailer-specific information in the keyword increases click-through rates, and the presence of brand-specific information in the keyword increases conversion rates. We find that there exists significant potential for cross-selling through search keyword advertisements. The presence of a brand name in the keyword is associated with consumer spending on product categories that are different from the one they were originally searching for on the Internet.

4 - Location, Location and Location: An Analysis of Profitability and Position in Online Advertising Markets

Ashish Agarwal, ashish1agarwal@cmu.edu, Michael Smith, Kartik Hosanagar

Sponsored search accounts for 40% of the total online advertising spending. These ads appear as ordered lists along with the regular search results in search engine results pages. Conventional wisdom is that the ads at the top positions generate the highest traffic and are therefore, most desirable. This has led to intense competition among advertisers competing in sponsored search auctions to secure the top positions in the results pages. We evaluate the impact of ad placement on revenues and profits generated from sponsored search using data from for several hundred keywords from the ad campaign of an online retailer. Using a hierarchical bayesian model, we measure the impact of ad placement on both the click through rate and the conversion rate - likelihood of purchase conditional on a click - for these keywords. We find that while click probabilities decrease with position, conversion rates first increase and then decrease with position. The net effect is that the topmost postion is not necessarily the revenue-maximizing position. As the top positions are disproportionately more expensive than lower positions, we find that the lower positions lead to higher profits in sponsored search. Our results provide insight into consumer behavior in sponsored search and inform the advertising strategies of firms participating in sponsored search auctions. Further, they reveal potential inefficiencies in present auction mechanisms used by the search engines.

■ FA02

Junior C

Service Marketing

Chair: Rachel R. Chen, Graduate School of Management, UC Davis, One Shields Avenue, Davis, CA, 95616, United States of America, rachen@ucdavis.edu

Co-Chair: Yinghui Yang, Graduate School of Management, UC Davis, yiyang@ucdavis.edu

1 - Buyer-seller Relationships and Customer Lifetime Value

Gila E. Fruchter, Professor of Marketing, Graduate School of Business Administration, Bar-Ilan University, Ramat-Gan, 52000, Israel, fruchtg@mail.biu.ac.il, Simon P. Sigué

We present an analytic approach to address the problem of how sellers can establish and maintain a long-lasting relationship with a buyer and, at the same time, maximize customer lifetime value (CLV). To model the evolution of a relational exchange between a seller and a buyer, we extend a well-known mathematical model of "love dynamics." In love dynamics, the growth of each partner's commitment to the relationship is a sum of negative and positive terms. The negative term describes each partner's propensities for opportunism, while the positive terms describe each partner's trust in the commitment of the other, and the reaction to marketing efforts. The seller controls the evolution of the relationship through social relationships and transactional marketing efforts. Several questions are investigated, including: (1) Can sellers rely on buyer commitment? (2) Are long-lasting relationships always profitable? (3) Is maintaining an old relationship indeed less costly than starting a new one?

2 - Probabilistic Goods and Probabilistic Selling: A New Pricing Tool for Retailers

Scott Fay, Assistant Professor, University of Florida, 211 Bryan Hall, Gainesville, FL, 32611, United States of America, scott.fay@cba.ufl.edu, Jinhong Xie

We define and develop a new pricing tool, termed, "probabilistic selling." Using this tool, a seller creates a "probabilistic good," which is not a concrete good but is an offer involving a probability of getting any one of a set of multiple distinct items, and offers such probabilistic goods to potential buyers as additional purchase choices. For example, a retailer selling two different colors of sweaters, red and green, may offer an additional "proba-

bilistic sweater," which can be either the red or green sweater. A theatre that offers two different shows on a given weekend can sell an additional probabilistic ticket, "Saturday or Sunday Performance." We show various advantages of this selling strategy, such as expanding one's market and enhancing segmentation. Our findings show that offering probabilistic goods is particularly valuable to service providers or retailers who face uncertain demand and limited capacity/supplies. PS has a large potential benefit for retailers because the retailing industry often faces uncertain demand across particular SKU's within a product group (e.g., handbags with different designs). In such environments, offering a probabilistic product can be a powerful tool for better margin management so that a retailer can induce earlier purchases, maintain the "full" price longer, and reduce the size of markdowns. Specifically, PS can be used as a pre-emptive tool, i.e., preventing inventory imbalance from occurring, as well as a responsive tool, i.e., correcting existing inventory imbalances. Understanding this new tool is timely because recent advances in technology are creating opportunities to implement probabilistic selling efficiently.

3 - Should Captive Sardines be Compensated? Serving Customers in a Confined Zone

Rachel R. Chen, Graduate School of Management, UC Davis, One Shields Avenue, Davis, CA, 95616, United States of America, rachen@ucdavis.edu, Yinghui Yang, Eitan Gerstner

Many services are delivered to a (large) number of customers simultaneously within a confined zone (e.g., restaurants, resorts, trains, and aircrafts). Under unexpected high demand, customers experience discomfort from two major sources: (a) the "sardine effect" that arises when too many customers ("sardines") compete for space and service resources; (b) the "captivity effect" that results from an exit cost incurred by customers who self-select to "escape" the (unpleasant) service. This paper investigates the optimal compensation and pricing policies under these two effects. We find that offering compensation to sardines improves profit and social welfare. However, consumers do not benefit when compensated for the discomfort from crowding. The paper also provides insights by exploring how changes in the two effects impact profit and social welfare.

4 - Managing Quality with Constrained Capacity in Equilibrium

Steven Shugan, Russ Berrie Professor, University of Florida, 2030 NW 24th Avenue, Gainesville, FL, 32605, United States of America, steven.shugan@cba.ufl.edu, Aydin Alptekinoglu

During peak demand periods, service providers often face binding capacity constraints, i.e., optimal decisions given unconstrained capacity generate more customers than available capacity can satisfy. During peak periods, service providers can improve profits by strategically raising prices and decreasing quality, at least, on margin. Although these actions decrease customer demand, sales remain unchanged because demand previously exceeded capacity. However, empirical observation reveals successful service providers who reject this seemingly obvious strategy (e.g., they sometimes provide special customer benefits only during peak periods). Understanding why requires an understanding of two very different types of intermittent demand peaks - predictable (e.g., seasonality) and unpredictable (e.g., stochastic customer arrival). With unpredictable peaks, customers with rational expectations might sensibly fear unpredictable sporadic congestion. An equilibrium analysis using queuing theory reveals that this fear of unpredictable congestion causes a different optimal quality strategy (e.g., providing increased quality and possibly lower prices during unpredictable peaks) that compensates for equilibrium consumer aversion to unpredictable congestion. In contrast, increased optimal quality during predictable peaks occurs only when drastic price increases are possible. Finally, this analysis reveals that equilibrium queuing theory is far more general than previously believed. Interpreting servers as capacity and queues as congestion while remaining loyal to the traditional interpretation of arrivals, allows queuing theory applications to myriad industries lacking traditional waiting lines (e.g., hotels, airlines and universities).

5 - Customer Bill of Right: Who Benefits?

Yinghui Yang, Graduate School of Management, UC Davis, yiyang@ucdavis.edu, Rachel R. Chen, Eitan Gerstner

Services such as air and ground transportation are subject to service failures caused by factors that cannot be controlled by service providers. For examples, airline delays are often caused by airport operators, security issues or simple bad weather conditions. Such failures hurt both service providers and customers. This paper investigates alternatives in managing the damage caused by such failures. In particular, we explore conditions under which it is profitable for a service provider to allow customers to self-select whether to stay or leave under service failure, instead of keeping them as captive customers. We also derive the optimal incentives that the service provider should offer to customers who decide to stay and to those who decide to leave.

■ FA03

Pavilion D

Marketing Meets Design

Chair: Gursel Ilipinar, ESADE Business School, Pedralbes, 60-62 E-08034, Barcelona, Spain, gilipinar@yahoo.com

Co-Chair: Judith Lynne Zaichkowsky, Faculty of Business Administration, Simon Fraser University, Vancouver, BC, v5j 2l1, Canada, zaichkow@sfu.ca

1 - Design Orientation as a Driver of Organizational Culture

Giulia Calabretta, ESADE, Av. Pedralbes 60-62, Barcelona, 08034, Spain, giulia.calabretta@esade.edu, Jordi Montaña, Oriol Iglesias, Isa Moll

Design is emerging as a major field of study. Most vigorous stimulus to design's rise comes from recognition of its value as source of sustainable competitive advantage, especially in firms engaged in high levels of innovation. However, the youth of the field still determines a lack of theoretical foundations and methodological rigour. Absence of an established paradigm is evident if we consider the basic definition of how design-oriented firm should be. The majority of existing studies look to how the design function should contribute to the production process and how it should be integrated with the rest of the firm's functions. But so far, reduced attention has been given to the most general question of what kind of firms is effectively able to develop such a design function, capable to generate sustainable competitive advantage. Many studies identify culture as a major barrier to design integration and to better design performances. Only way for bypassing this intrinsic obstacle is to have design orientation already integrated in corporate culture and to cultivate this amalgamation from the very beginning. The present study is an attempt to fill this gap, by investigating what type of organizational culture design-oriented firms share. Specifically, this research addresses three questions: 1. why are some organizations more design oriented than others? 2. what effects does a design orientation have on employees and business performance? 3. what are the characteristics of a design-oriented firm? These interrogatives have been approached via multiple case study methodology, which permits the elicitation of results through the comparison of different contexts and the triangulation of various data sources (Yin,2003). In particular, we conducted semi-structured interviews to thirty companies we regarded as highly design oriented. By integrating the transcripts with other sources of information (internal documents, external opinions on the firms' design activity, analysis of visual material), we identified antecedents and consequences of what can be defined as design orientation.

2 - Introducing Design Orientation as an Aspect of New Product Development Success

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Increasing customer demands for innovative products places pressure on firms to improve their new product development processes. Market orientation has been proposed as a key route to superior product offerings and improved overall firm performance (e.g., Jaworski & Kohli 1993; Narver & Slater 1990). However, while the relationship between market orientation and product success is well established, researchers are keen to understand the mechanisms that underlie the process. Literature suggests that a key element may be the role of design as an aspect of product innovation (Aubert 1982; Walsh 1996) and new product process (Cooper & Kleinschmidt 1986). Evidence for the importance of design in product innovation is becoming increasingly salient to researchers, as well as practitioners. Superior product designs can provide competitive differentiation that results in improved positional advantage over competitors (Cooper 1979). However, a clear understanding of how product design influences extant models of product development has not been established. Lorenz (1995, p.74) argues that this is largely due to the fact that "... to present, nobody has been able to develop a clear way of characterizing design in an organization." This study proposes that firms which create competencies from the external environment (e.g., market analysis, consumer research, and new technologies, processes, or materials) and internal resources and capabilities (e.g., product strategy, brand identity) can be described as design oriented. This study hypothesizes that; (a) a design orientation positively moderates the relationship between market-orientation and firm

innovation and, (b) this relationship will show a positive effect on new product success. This link is important for two reasons. First, product design plays a critical role differentiating offerings from those of competitors (Andews & Smith 1996; Kleinschmidt & Cooper 1991) and second, product design can accumulate in a firm as organizational intelligence, which may lead to a sustained competitive advantage (Hunt & Morgan 1995; Barney 1991).

3 - Trading off Design for Brand Name

Judith Lynne Zaichkowsky, Faculty of Business Administration, Simon Fraser University, Vancouver, BC, v5j 2l1, Canada, zaichkow@sfu.ca, Gorm Gabrielsen, Tore Kristensen

Design is now a major attribute in the preference and choice of consumer goods (Zolli, 2004). Consumers seek to buy products which represent significance and meaning in their lives through unique designs, perhaps indicating and reflecting their own uniqueness of identity. To cue consumers of the specialness of the design, many brands employ famous designers, therefore reinforcing the design through the name of the designer. For example, "designer" brands can be documented from forty dollar Martha Stewart bed sheets in Target to forty thousand dollar patchwork handbags from Marc Jacobs at Louis Vuitton. Consumers are able to rely on the name "Martha Stewart" or "Marc Jacobs-Louis Vuitton" as powerful and proven indicators of trustworthy "good"actual designs. Many of these distinctively designed products are "knocked-off" by low price look-a-likes and sometimes it is difficult to tell the originals from knock-offs, especially when the label or brand name is missing from the object. For example the Arne Jacobson egg chair retails for over 12 thousand dollars, but other furniture manufacturers sell a look-a-like for considerably less. The copying of original designer goods is very attractive because of the value in the original "art" form, the uniqueness of the actual design, and the craftsmanship and quality usually associated with "designer" goods. An important question for manufacturers is, "How do you get consumers to value and identify the original designs over copy-cat or knock-offs". To answer that question we first need to know a) if anyone can "recognize a good design?" ; b) "Can a good design decrease price sensitivity?" ; and c) "Can a good design over-ride a good brand name?" and finally, d) "Is there a design-prone segment?". Then we are interested to know if we can shift preferences by providing the consumer with information about the designer. Therefore the purpose of this study is to assess how consumer evaluations change when given information about brand names and information about the designer.

4 - Role of Design Management in Service Innovation

Gursel Ilipinar, ESADE Business School, Pedralbes, 60-62 E-08034, Barcelona, Spain, gilipinar@yahoo.com, Wesley J. Johnston, Jordi Montaña, Rajendra Srivastava

Design has received growing attention as an important resource and catalyst for product innovation. However, the principles of design apply not only to physical products, but also to services. As an activity that enhances customer experience (Cagan and Vogel, 2002), services produced by private industry accounted for 67.8 percent of U.S. gross domestic product in 2006. Today, we are clearly living in a service economy. This economy presents many opportunities for businesses to differentiate their services through design to provide their customers with better experience. According to Bain & Company, "80% of the companies believe they deliver a superior customer experience, but only 8% of their customers agree". Innovation, is an important factor for almost all type of businesses (Ramis et al, 2006). Especially in the service sector constant innovation is the key to reach and maintain an outstanding competitive position (Martin and Horne, 1995; Kandampully, 2002; Roberts and Amit, 2003). In many cases competition by quality or performance is difficult because most of these attributes depends on people and in a lot of service businesses, companies have to face a high fluctuation of their workforce (Chan et al., 1998). As a result companies tend to apply reactive innovation strategies (Piercy and Morgan, 1991) and get into a service competition where the characteristics of the service competition lead to a consumer purchase decision based on price and a nearly day by day increase of competition (Ramis et al, 2006). Emerging developments in the use of design and design thinking can lead to innovation in services and customer experience. Well-managed design has the power to build brand value, harness innovation, shape strategy, and attain customer satisfaction. The focus of this paper is on how user-centered design can help firms achieve valuable service innovation. Below are several case studies (MSI, 2007) to demonstrate how companies can develop successful services by differentiating their services from that of their competitors through design elements (style, aesthtics, form, etc.) .

5 - Discussion Panel on Design

Moderator: Colleen Collins, Associate Professor of Marketing at Simon Fraser University, dodd@sfu.ca,

Colleen Collins will lead the discussions for this session. The facilitator intends to engage the audience in a facilitated discussion that links marketing and design management with relevant theories that concern the interaction between designers and marketers. Our goal for the session is to give each presenter sufficient time to present their perspective, project and findings as well as to encourage audience interaction with the presenters to develop an agenda for continuing research in this area. Specifically, each paper will be allocated 15 minutes to present. Then, taking the four presentations as a point of departure, Colleen will facilitate a discussion between the panel and the audience.

■ FA04

Port Alberni

Influences on Purchase: Attributions and Information From Others

Chair: Frank van Rijnsoever, Utrecht University, Heidelberglaan 2, Utrecht, Netherlands, f.vanrijnsoever@geo.uu.nl

1 - Family Purchase Decision Making in India: Impact of Couples' SRO, WWP AND RRC

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Conjugal influence in Family Purchase Decision Making Behaviour (FPDMB) is an important area of Consumer Behaviour. While the available literature on spousal influence focuses on western countries in relation to their societies, the scope of these studies has been too limited for application in the Indian context as Indian society has been traditionally viewed as a patriarchal society characterized by husband dominance. However, recent evidences show that Indian society is undergoing radical changes pertaining to men's and women's roles and indicate that the earlier conceptualization of role structures for family decision making may no longer be valid. These external environmental trends, namely, changes in sex-role perception (SRO), increasing wives' employment outside the home (WWP) and the relative resource contribution (RRC)-in terms of educational attainment, level of income and age- are likely to change the internal environment by altering the balance of family power between husbands and wives and are likely to act as important variables in FPDMB research. Noting the absence of any major empirical research on spousal influence in family decision making in India, the present study was undertaken with 338 families for determining which spouse has the dominant influence in various types of decisions across categories of products. A separate SRO scale was developed and utilized. The independent and the interactive effects of the major determinants of spousal power structure namely, couples' SRO, WWP and RRC were examined and found to be statistically significant. Marketing implications that would be of use to both the domestic and international marketers in the area of advertisement and promotion for durables in the Indian market are also drawn.

2 - Defending Against Future Loss: The Impact of Regulatory Focus on an Observing Customer's Attribution

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Defensive attribution theory refers to the responsibility attribution behavior which is driven by self-protective motives (Walster, 1966). In particular, it pertains to how an observer assigns responsibility to the alleged perpetrator and victim in an accident (Shaw & McMartin, 1977). Following that logic, an observing customer who witnessed an unsuccessful service encounter may make attribution in a self-protective manner. Observing customer are of paramount importance because they represent potential business to the company. Few research has been conducted to study the role of an observing customer albeit their significance. The objective of the current study is to enrich our understanding of the role of observing customer. Specifically, we investigate how an observing customer's defensive attribution tendency and regulatory focus would affect responsibility attribution behavior in case of service failures. Drawing on the defensive attribution theory, we contend that an observing customer will attribute more (vs. less) responsibility to the service provider if the customer involved in the failure incident is similar (vs. not similar) to him/her. Furthermore, we believe that a person's regulatory focus will moderate this pattern of defensive attribution due to the difference in sensitivity to loss (prevention-focused) versus gain (promotion-focused). Particularly, we posit that

prevention-focused people will be more prone to use self-defensive attribution. As prevention-focused are more sensitive to loss, they are vigilant against harmful consequences of a similar service failure that might befall them. Thus, when compared to promotion-focused customer, prevention-focused customer may attribute more responsibility to the service provider.

3 - When Do Customers Listen to Others? Determinants of Customers' Use of Third-Party Information

Mario Rese, Affiliate Professor, ESMT European School of Management and Technology, Schlossplatz 1, Berlin, 10178, Germany, rese@esmt.org, Annika Wilke, Bülent Gögdün

It is undisputed that information from third parties (e.g., Consumer Reports) can play an important role in a customer's purchase decision process. However, it is still unclear under which conditions customers rely on such information. Thus, our goal is to acquire deeper insights into the determinants of the use of third-party information by customers. We developed a conceptual model integrating three important perspectives on the use of third-party information: customer's evaluation (i) of the information source itself, (ii) of the product characteristic about which information is given and (iii) of its informational value. While in (i) e.g., the negative consequences for a third party spreading incorrect information are highlighted, in (ii) we concentrate on e.g., the perceived degree of subjectivity of the evaluation: We assume that the less possible it is to judge quality along commonly accepted criteria, the less third-party information will be used by a customer. In (iii) the costs and benefits directly connected with the use of the information are taken into account. Based on this conceptual model, a series of causal hypotheses have been elaborated upon. To test the hypotheses, we conducted a world-wide online survey in a field of complex services, namely the MBA market. The sample comprises 820 future, current, and former MBA students who were asked about their informational behavior during their business school selection process. The hypotheses were analyzed in a structural equation modeling approach with MPlus 5. We were able to confirm most of our hypotheses. It could be shown that all three perspectives have a (different) impact on a customer's use of third-party information and the corresponding reduction of quality uncertainty.

4 - Knowledge Base and the Use of Channels for Information Search: The Case of Car Purchasing

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In the process of purchasing new products, consumers can choose various channels to acquire information about new products. Research by Van Rijnsoever and Castaldi (2007), has shown that the use of various search channels is related to the amount of information he/she already has - the knowledge base. In this study we relate the size of the knowledge base to the use of search channels for car purchasing. We conducted a survey (Valid N = 1394) among households that owned a car. In the questionnaire we made a distinction between five types of search channels: (1) the own experience, (2) use of local channels (friends and family), (3) use of non-local channels (TV and radio), (4) use of internet and (5) use of experts. We found that the use of experts is not related to the knowledge base, but that it has a much higher intercept compared to other channels. This means that in the purchasing process people rely heavily on experts. Local channels show a very weak relationship, but also have a high intercept. The use of all other channels is positively related to the actor's knowledge base, with equal slopes, but with different intercepts. These findings can be explained by the costs of information search and the risks the consumer is willing to take when purchasing a new car. To reduce risk consumers always rely heavily upon experts and local channels. The use of other channels (to gain additional information) depends upon the costs (in terms of effort) of using these channels.

■ FA05

Pavilion C

Managing New Product Introductions

Chair: Douglas MacLachlan, Professor & Chair, Foster School of Business Deparment of Marketing & IB, University of Washington, Box 353200, Seattle, WA, 98195, United States of America, macl@u.washington.edu

1 - Why, When and How Prices Land: Empirical Evidence from the Video Game Industry

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We examine how new products are priced over time, and we particularly look at sharp decreases in price which mimic the take-off patterns in sales data. Often, a systematic decline in prices can be observed over time and also a significant price cut can be witnessed after a product's introduction. Such a price landing may be due to competition and/or underperforming sales, but to our knowledge the key drivers for the timing for such a landing are unexplored. We examine the triggers of a significant price cut of a new product some time after its launch. We have access to a very rich dataset on sales of 1098 videogames and on their prices. Prior literature suggests that own sales, competitive sales, competitive prices or simply time could be the trigger of price landing, and we study their relevance using actual data. To answer the research question we develop a mixture model covering a set of pricing equations which have the price landing moment and its speed as parameters. Next, we put forward a hierarchical model to explain the apparent heterogeneity in these parameters. The main finding is that, and this is in sharp contrast to common wisdom, it is not sales thresholds but competition and time itself than makes managers to wait for cutting prices. For our specific video game market we further find that a market leader is followed, and that prices land simultaneously.

2 - New Product Introduction Strategies of Asymmetric Competitors

Thanh Tran, Doctoral Student, University of Central Florida, Department of Marketing, COBA, BA2-307E, 4000 Central Florida Blvd., Orlando, FL, 32816-1400, United States of America, ttran@bus.ucf.edu, Axel Stock, Ramarao Desiraju

In today's marketplace, firms are heterogeneous along many dimensions, including production and distribution capabilities, levels of customer loyalty, and market positions. Firm heterogeneity can impact different firms' decisions to introduce a new product or enter a new market, and the literature on market entry strategies provides a useful framework to assess first- and late-mover advantages. We extend this literature by further exploring the impact of competitive intensity and firm heterogeneity on optimal new product introduction strategies. Using game theory, we develop and analyze a series of models to examine the impact of these two factors. By comparing results across these models, we characterize the differences in firms' payoffs, first- and late-mover (dis)advantages for the different firms. Overall, the analysis helps us derive the equilibrium introduction strategies for various market settings. The paper provides anecdotal evidence to support our analysis, discusses managerial implications and suggests some directions for further work.

3 - Key Success Factors in 3G Services Adoption: A Cross-Cultural Consumer Perspective

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In this study, we will show that cultural factors are used to explore the different findings; it can influence the initial variables directly without mediation. We also apply an extension model to the Technology Acceptance Model - the COMPASS Acceptance Model which is very suitable for testing mobile services adoption, and may be used to define the weighing factors of mobile services' life cycles in different culture contexts. Data collected from France (Paris) and China (Beijing) was tested against the research model; the results strongly support the proposed model in predicting consumer behaviours when using 3G mobile services. Several implications will help 3G players to determine efficient marketing strategies and access the potential adoption of new mobile services.

4 - How Should Companies Price New Products When Customers are Unsure About Their Willingness to Pay?

Douglas MacLachlan, Professor & Chair, Foster School of Business Deparment of Marketing & IB, University of Washington, Box 353200, Seattle, WA, 98195, United States of America, macl@u.washington.edu, Joo Heon Park, Edwin Love

Price setting is a major concern for companies entering a product into a market for the first time. Firms typically assume that prices are largely determined by customer demand without considering that such demand can be affected by the prices they post in the market. We propose that customers' observation of a posted price can affect their willingness to pay (WTP) for a new product. This paper proposes two possible anchoring and adjustment mechanisms that might operate when a customer sees market evidence about the price. A mathematical model is developed to examine the implications of these mechanisms in contrast to a conventional mechanism where market information in the form of the posted price is not considered in the customer's decision (except in comparison with a predetermined reference price). Purchase probabilities implied for each mechanism are developed and illustrated. Given the purchase probabilities, expected profit maximizing prices are derived and illustrated with graphs. Three

propositions are advanced, under assumptions about the nature of the weighting and the probability distributions associated with a customer's WTP and market prices. We develop a theoretical argument and mathematical proof that if customers come to a purchase situation with an ill-defined WTP, it will normally be optimal for firms to price higher than otherwise. We also describe how optimal pricing should change with degree of influence of external price information relative to internal reference price and with the degree of uncertainty about a consumer's reference price. We conclude with some suggestions for further research and empirical investigation of the models suggested in the paper.

■ FA06

Pavilion B

Word-of-Mouth in Movie Marketing

Chair: Hiroshi Onishi, Doctoral Student, Ross School of Business, University of Michigan, 701 Tappan Street, Ann Arbor, MI, 48109, United States of America, hohnishi@umich.edu

1 - How the Interplay Between Advertising, Media Coverage and Word of Mouth Affect Supply and Demand of Motion Pictures?

Guillermo Armelini, IESE Business School, Av. Pearson 21, Barcelona, 08034, Spain, docgarmelini@iese.edu, Julian Villanueva, Jorge Gonzalez

Rooted in the Integrated Marketing Perspective, in this paper we check how the interplay between advertising, media coverage (publicity) and pre-release word of mouth (WOM) affects demand and supply in the motion picture industry. Specifically, we check whether WOM and publicity are significant drivers of demand and supply of motion pictures during the opening week, and whether the level of advertising expenditure affects the amount of WOM and publicity that a movie is likely to generate. We focus the analysis on the first week due to the high correlation between total and opening box office and because marketing actions can be observed mostly during the first week We conducted the analysis developing an econometric model that estimates the effect of publicity and WOM in supply and demand across different levels of advertising. We check the robustness of our findings conducting a rolling window analysis. On the demand side, our results indicate that publicity is a significant predictor of revenues only in heavily-advertised movies, whereas WOM was found to be a significant driver of box offices in movies with low and medium advertising budgets. Hence we conclude that WOM and publicity play a complementary role depending on the level of advertising expenditure. On the supply side, our findings suggest that WOM is a significant predictor in movies with low advertising budget, meaning that its influence on revenues is indirect, through its impact on exhibitors' screen allocation. However in heavily advertised movies, neither publicity nor WOM were found to be significant antecedents of the number of screens. Managerial implications and opportunities for future research are also discussed.

2 - A New Approach to Measure the Valence of WOM

Kung-Hsin Shao, Doctoral Student, National Taiwan University, 4F., No.14, Alley 7, Lane 82, Jinghua St, Taipei, Taiwan - ROC, asukaa1@gmail.com, Lichung Jen

Due to the popularity of online movie forums such as Yahoo!Movies and IMDB.com, online reviews have became an important influential factor to the success of motion picture. Most previous studies use the volume and the valence of online reviews to represent the effect of word of mouth (WOM), and then to investigate their impact on the box-office revenue. There is no doubt that the volume of online reviews has positive relation to the box-office revenue. However, the impact of the valence of online reviews did not show consistent or significant results in previous studies. It is because the valence of WOM is measured by a simple average rating of reviews, which may conceal diversified or controversial opinions. For example, "The Passion of the Christ" is a movie that received many controversial reviews, but it earned great box-office revenue. If researchers only use simple average rating of online reviews, it will misinterpret the real valence of WOM of the movie. To solve this problem, this study proposed a new approach to measure the valence of WOM by using the Beta distribution property to model the structure of reviews. The shape of Beta distribution is very flexible to represent varied structure of reviews. When the two parameters of Beta distribution are less than 1, for example, it will appear two heavy tails on opposite ends of reviews which mean that the valence of WOM reveals a bipolar or controversial characteristic. The data of movies which release in 2006 was collected from the website of IMDB.com. The empirical results show that under the same average rating of reviews, the highly controversial reviews could generate the highest effect of WOM. We believe this approach could provide a simple but insightful measurement for the valence of WOM.

3 - Marketing Activity, Blogging and Sales

Hiroshi Onishi, Doctoral Student, Ross School of Business, University of Michigan, 701 Tappan Street, Ann Arbor, MI, 48109, United States of America, hohnishi@umich.edu, Puneet Manchanda

Measuring and managing word-of-mouth communication is of growing interest to managers. This is because of the belief that word-of-mouth is a key predictor of a product's performance and could even enhance product sales. An important component of online word-of-mouth activity is blogging. However, little is known about the relationship between firm controlled marketing activity and the volume and valence of blogging activity. In this research, we investigate if firm actions act as antecedents of the blogging activity. We then examine the role of blogs in forecasting sales volumes. We use a unique data set from the Japanese film industry on marketing (e.g., advertising) and sales (audience measure), and supplement it with detailed measures of blogging activity. We find that blogging activity (volume) is significantly affected by firm actions prior to the release of a movie even after controlling for previous blogging activity. We then examine whether blogging activity at pre- and post-release can act as a forecasting tool for eventual movie sales. We then discuss implications for managers.

■ FA07

Pavilion A

Choice-Statistical Methods

Chair: Thomas Steenburgh, Associate Professor, Harvard University, Soldiers Field Road, Boston, MA, 01890, United States of America, tsteenburgh@hbs.edu

1 - Non-compensatory Choice Applications

Ty Henderson, Assistant Professor, University of Texas at Austin, 1 University Station B6700, Austin, TX, 78712, United States of America, ty.henderson@mccombs.utexas.edu, Neeraj Arora

Recent advances in non-compensatory choice models (e.g. Gilbride and Allenby 2006, Yee et al. 2007) have demonstrated their conceptual appeal but typically show limited performance improvement over linear compensatory models in empirical applications. Shifting our focus from model fit to model implications, we illustrate the usefulness of non-compensatory choice models from both a conceptual and marketing application standpoint. Specifically, we investigate the value of capturing attribute-level non-compensatory screening for brand consideration and factors that are likely to impact consideration effects. Via simulation we demonstrate the challenge of a mis-specified distribution of heterogeneity and overdispersion (e.g. Mukhopadhyay and Gelfand 1997) in a hierarchical Bayes model for both compensatory and non-compensatory parameters, particularly with asymmetric bi-modal or heavy-tailed distributions. We argue that non-compensatory behavior is a manifestation of attribute preference extremity and formally conceptualize "must have" and "can't have" point masses in the distribution of preference heterogeneity. We investigate the value of stated attribute acceptability information on consideration set formation. Data from a series of experimental studies are used to investigate shifts in consideration set structures because of interpersonal and social influences.

2 - The Effects of Measurement and Specification Error in Integrated Choice-latent Variable Models

Garrett Sonnier, Assistant Professor, University of Texas at Austin, University Station, Austin, TX, 78712, Garrett.Sonnier@mccombs.utexas.edu, Andrew Ainslie

Recent academic work in marketing demonstrates the value of augmenting discrete choice data with attitudinal information. Latent variable models such as factor models are useful tools to represent the structure of the attitudinal data. The factor scores also provide a natural way to integrate the models; the choice data and attitudinal data are modeled as arising from the common factor scores and parameters unique to each model. We propose a Bayesian simultaneous factor-choice model to incorporate attitudinal data into discrete choice analysis. Bayesian methods naturally accommodate unobserved heterogeneity in both models. Bayesian methods also handle binomial manifest items in the factor model; models for continuous or ordinal categorical data are special cases of the general model. In this setting, simultaneous estimation is generally preferred to improve efficiency and avoid attenuation bias from measurement error in the factor scores. However, we demonstrate that gains to efficiency and

consistency can be swamped by mis-specified unobserved heterogeneity. These estimation issues are illustrated using a set of choice-based conjoint (CBC) data on branded midsize sedans combined with multivariate binomial measures of consumers' associations between brand image attributes and the parent brands of the sedans in the study. The model explains the extent to which consumers' existing association of image attributes with the parent brands explains valuations for products that carry the parent brand name. Simultaneous estimation is shown to improve efficiency and consistency of model parameters, but only after controlling for unobserved heterogeneity.

3 - Multivariate Nested Logit: A General Extension of Nested Logit for Multi-category Multi-item Choice

Kyuseop Kwak, Lecturer, University of Technology-Sydney, P.O. Box 123, Broadway, 2007, Australia, kyuseop.kwak@uts.edu.au, Gary Russell, Sri Devi Duvvuri

Recent development of multiple-category multiple-item choice models is mostly based upon either the Multivariate Logit (MVL) or Multivariate Probit (MVP) models. The two basic models are popular because they can capture interrelationships among items across multiple categories. Each model has its own advantages and disadvantages. MVL is well recognized for its intuitive interpretation due to fixed cross-category effect parameters, but it is not as flexible as MVP in terms of capturing unobserved correlations among alternatives. Calibration of MVP, however, requires significant use of simulation estimation technologies. In this project, we introduce a new approach: a generalized extension of traditional Nested Logit (NL) to multiple-category multiple-item choice decisions (more generally pick-any choice). The proposed model is capable of capturing unobserved correlations among choices with a few parameters. The proposed model is much simpler than MVP, but more flexible than MVL. In particular, the model is suitable for choices consisting of multiple stages (e.g., category incidence and brand choice in multiple category choice situations). We discuss theory of the new model, contrasting it with multiple category models and traditional NL. In addition, we illustrate the properties of the model by calibrating it on market basket data.

4 - Choice Among Similar Alternatives Revisited

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Many of the choice models that purport to "solve" the independence from irrelevant alternatives (IIA) problem do not actually address the broader concerns that Debreu (1960) first illustrated with the "Beethoven/Debussy" example. (These concerns are perhaps more familiar now through the "Red bus / Blue bus" example.) In this paper, I show that models that allow for differences in taste among individual decision makers, such as the mixed logit, may create ecological correlations between products, but they do not necessarily address the Debreu's broader concerns either.

■ FA08

Port Hardy

Consumer Decision Making

Chair: Koert Van Ittersum, Georgia Institute of Technology, College of Management, 800 West Peachtree Street, NW, Atlanta, GA, 30332, United States of America, koert.vanittersum@mgt.gatech.edu

1 - Ambiguity Aversion and the Power of Established Brands

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This paper investigates situations where a sizeable sub-set of consumers prefer an inferior (dominated) offer made by an established brand to a superior (dominating) offer made by a less-established brand. Established brands are those for which consumers hold more confident beliefs concerning overall quality. Through a series of experiments, we test the hypothesis that the preference for a dominated established brand is linked to ambiguity aversion, a seemingly unrelated pattern of choice behavior between monetary gambles. We first show a correlation between ambiguity aversion and the preference for dominated established brands. We then demonstrate that the preference for established brands is enhanced when ambiguity aversion is made more salient in unrelated preceding choices. To further study the ambiguity-reducing properties of established brands, the last experiments assign brand names to monetary gambles, and it appears that (a priori unrelated) established brand names increase the likelihood of choosing ambiguous gambles. Overall, this research argues that brand equity for longstanding brands derives (at least in part) from consumers' tendency to avoid ambiguity.

2 - The Role of Perceived Unfairness in the Decision Making

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The literature on consumer ethics argues that consumer's (un)ethical behaviors are accomplished by their ethical beliefs. The basic premise of the stream of studies is that the more consumers consider a certain behavior to be unethical, the less likely they would engage in such behaviors. This argument rests on the assumption that consumers' (un)ethical decision-making is based upon rational reasoning. However, instead of relying on rational reasoning (i.e., ethical judgment), consumers may exhibit unethical behaviors due to contingency factors in the exchange situation. Therefore, scholars have started to voice concerns about the appropriateness of the causality assumption in regard to consumer ethical belief and consumer's (un)ethical behavior. Drawing on the theory of relational norms, this study investigates how consumers' perceived unfairness affects their unethical decision-making. In particular, we investigate the joint effects of perceived unfairness and ethical ideology on consumers' unethical decision-making. A scenario research method was adopted to test our hypotheses with a sample of Chinese consumers. Data analysis results provide general support for our hypotheses. We observe that perceived unfairness leads to unethical behavior outcomes. Moreover, individual's moral philosophy mediates the relationship between perceived unfairness and consumers' unethical decision-making. Study findings offer insights on companies can better manage contextual factors of consumer decision making so as to reduce the occurrences of consumer unethical behaviors.

3 - Evaluating the Benefits of Distraction on Product Evaluations: The Mindset Effect

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The present research adds to the recent debate in consumer behavior and decision theory on the effects of distraction on decision quality. On the one hand, behavior theory argues that distraction during decision-making should be avoided because it withholds the decision-maker from consciously deliberating about the various alternatives, and, therefore, results in inferior decisions. On the other hand, recent evidence on unconscious processes suggests that distraction might be beneficial when making complex decisions. The current research contributes to this stream of research by illustrating that it is people's specific processing mindset that determines whether distraction results in better evaluations or not. More specifically, people were presented with attribute information about several product alternatives in three experiments. Next, they were asked to evaluate the products either immediately or after an unrelated distractor task. The results showed that distracted people were better able to differentiate attractive from unattractive product alternatives, but only when they had a configural mindset that prompted to form evaluatively coherent mental representation of the products. When people had a featural mindset and, therefore, tried to process the specific positive and negative features of various alternatives rather than their overall quality, then distraction did not result in better product evaluations. This phenomenon generalized over chronic and situationally activated mindsets. These findings imply that the often heard advice to "let the information rest for a while" or "sleep on it" when making complex decisions can indeed be helpful for managers and consumers with a configural mindset, but not for those with a featural mindset.

4 - Exploring Adaptive Estimation Behavior

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To gain an understanding as to how consumers estimate the compiled value of multiple items, we examine if and how consumers adapt their estimation strategy to different estimation conditions when estimating the compiled value of shopping baskets. We demonstrate that the limited information-processing capacity of short-term memory hinders consumers to effectively rely on an accurate integration strategy to estimate the exact compiled value of shopping baskets. Reliance on the accurate integration strategy results in more biased, less accurate, and less confident estimates than reliance on estimation heuristics referred to as computational estimation strategies, strategies used to estimate the approximate compiled value of shopping baskets. These results explain why estimation performance reduces with consumers' motivation to be accurate - motivated consumers are willing to incur more cognitive cost to achieve a higher estimation per-

formance by relying on an accurate integration strategy. Although motivation has a counterproductive effect on the estimation performance among inexperienced consumers, it improves estimation performance among experienced consumers. We further demonstrate that consumers adapt their strategy to different price-ending conditions based on the perceived cognitive complexity (i.e., costs) and accuracy (i.e., benefits).

■ FA09

Junior B

Dynamic Effects in Predictive Modeling

Chair: Thomas Reutterer, Vienna University of Economics and Business Administration, Augasse 2-6, Vienna, A, Austria, thomas.reutterer@wu-wien.ac.at

1 - Customer Targeting: Controlling for Endogeneity in Marketing Mix Decisions

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In direct marketing, firms usually adopt dynamic targeting strategies to reflect changes in consumers' demographics and other variables of interest. An econometrician trying to analyze the data available to him usually ignores this dynamic action of the firm, and this might result in biased estimates. For example, when we get insignificant estimate of a particular demographic variable, we tend to ignore its effect when in fact it might be effective and that the estimated ineffectiveness might by a result of the dynamic action by the firm that is not accounted for by the model. In this study we try to examine this cause-effect relationship between company's actions and consumers' response using data from a not-for-profit firm. Various donors subscribe to the organization and commit to donating certain amount of money periodically. The organization invests in various marketing efforts (usually using solicitation mailers and other direct communications) based on a donor's donation history as well as their demographics. We examine the following questions: What are the effects of the marketing mix elements? How can we control for the fact that demographics significantly determine the mailing decisions? Is the segmentation of the consumer using demographic variables alone as is currently being done by various companies, a good strategy or should marketers only look at the consumer behavior in terms of the donation? We try to answer these questions by considering the dynamics on both the organization and donor side in our model in a novel way.

2 - Detecting Meaningful Patterns of Profitability Dynamics in Evolving Customer-Firm Relationships

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Many firms collect huge amounts of personalized transaction data and integrate them in their customer databases to analyse the profitability of their customers. Prior research shows that focusing marketing efforts on those customers with high estimated lifetime value can result in higher overall profitability and thus in a more efficient investment of scarce marketing resources. However, in spite of their forward looking properties, customer lifetime metrics tend to underestimate the dynamic nature and variety of evolving customer relationship patterns. We present a modelling framework for analyzing the profitability dynamics of noncontractual customer-firm relationships. Our approach is based on the building blocks of the customer lifetime value concept, but explicitly considers the evolution of customer profitability over time. We classify each customer's period-wise profitability contributions to the firm into a discrete set of profitability tiers and model period-to-period transitions between these tiers as a Markov process with unknown transition matrix. Unsupervised heterogeneity is captured by assuming a finite mixture of Markov chains. The model parameters are estimated using empirical Bayesian methodology. We demonstrate that the presented Markov chain clustering model enables loyalty managers to detect segments of customers which differ significantly in terms of their profitability evolution over evolving periods. The approach is empirically illustrated using transaction data of a customer cohort acquired by an apparel retailer. We conclude with a discussion of managerial insights gained from the study and outline some extensions of the proposed approach as an agenda for future research.

3 - Predicting What Type of Customer You Will be Tomorrow: A Stochastic Segmentation Model

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Customer portfolio management (CPM) is a relatively new concept in marketing which is gaining popularity in both academic research and industry practice. CPM builds on the notion that there are different types of customer-firm relationships (Fournier 1998) and each relationship contributes to a firm's profitability (Reinartz and Kumar 2003; Johnson and Selnes 2004). This research proposes a customer dynamics framework, based on individual-level customer migration patterns, to assess the impact of marketing activities on change in customer-firm relationships over time. A hidden Markov model is applied to transactional data to determine each customer's migration pattern. The profitability of each latent state is predicted using an individual-level customer Lifetime Value model. Finally, multinomial models are estimated to evaluate the short- and long-term impact of marketing expenditures on customer migration patterns. The results of our customer dynamics framework suggest that price promotions are more effective than catalogue promotions at increasing the likelihood of customers migrating from a less valuable state to a more valuable state.

4 - Including the Effects of Prior and Recent Contact Effort in a Customer Scoring Model

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Database marketers often use a scoring model to predict the likely value of contacting customers based on their purchase histories and demographics. However, when purchase history has been a partial result of the firm's own contacting efforts, these contacts should also be accounted for in the scoring model. The current work extends the existing literature to account for the firm's contacts by focusing on each customer's most recent purchase. Contacts prior to that purchase are designated "prior contacts" and those after that purchase "recent contacts." A new latent variables formulation of the customer's propensity to respond is used to predict the likelihood and time of response as well as the relationship to the independent variables. The methodology also addresses the statistical problems of "selection bias" and "endogeneity," which have been largely ignored in most customer scoring models. An application to the database of a charitable organization confirms that, in this case: (1) the effect of the firm's customer contact efforts is associated with a stronger propensity to respond than is the case for the included demographics; (2) the firm's "recent contact" efforts are associated with larger returns in customers' propensity to respond than the "prior contact" efforts; and (3) the "recent contact" efforts are associated with an at-first increasing but then diminishing propensity to respond up to a point beyond which actual decreasing returns are observed with further contacts. Clearly, too much contacting should alienate would-be donors. The proposed model is general enough to calibrate such impacts in other database marketing applications where the relative effects might be different.

■ FA10

Junior A

Channel Competition

Chair: Wei-yu Kevin Chiang, Assistant Professor, City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong - ROC, wchiang@cityu.edu.hk

1 - Coordination Incentives in Competing Supply Chains

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The intensity of price competition can be blunted if firms "strategically decentralize" the distribution function. This argument is well known when demand is deterministic. We analyze coordination incentives when two manufacturers produce and sell substitutable products through two independent, exclusive retailers. The firms face stochastic and price sensitive demand and need to decide on both stocking levels as well as retail price. Manufacturers choose between various contracts that could coordinate none, some, or all of supply chain decisions. We show that, with price-only vertical contracts within each supply chain, but no horizontal price competition between retailers, decentralization can be used to mitigate retailers' incentive to carry too much inventory. When retailers choose

inventory levels and set prices, competition can paradoxically lead to higher retail prices as retailers account for stock-out based demand spillovers from the competing channel. We identify conditions under which manufacturers, and the supply chains, are better off choosing a price-only contract that seemingly 'distorts' the retailers' pricing and inventory decisions, over more complex contracts that could coordinate the supply chain. However, there are also scenarios where decentralization yields no benefits, and players are better off choosing coordinating contracts. We discuss how typical contracts that are known to coordinate decisions within a supply chain perform when competition between supply chains is considered.

2 - Revenue Management with Strategic Consumers: Last-Minute Selling and Opaque Selling

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Companies in a variety of industries (e.g., airlines, hotels, theaters) often use last-minute sales to dispose of unsold capacity. The consequences of such a strategy are not immediately obvious: more discounted last-minute tickets lead to more consumers anticipating the discount and delaying the purchase rather than buying at the regular (higher) prices, and hence potentially reducing revenues for the company. To mitigate such behavior, many service providers have turned to opaque intermediaries such as hotwire.com that hide many descriptive attributes of the service (e.g., departure times for airline tickets) so that the buyer cannot fully predict the ultimate service provider. Using a stylized economic model, this paper attempts to explain and compare the benefits of last-minute sales directly to consumers vs. through an opaque intermediary. We utilize the notion of the rational expectations equilibrium to model consumer purchasing decisions: consumers form expectations regarding prices and service availability in the opaque market and these expectations should be consistent in the equilibrium. We show that direct last-minute sales are preferred over selling through an opaque intermediary when consumer valuations for travel are high and/or there is little service differentiation between competing service providers; otherwise, opaque selling dominates. Moreover, contrary to the usual belief that such sales are purely mechanisms for disposal of unused capacity, we show that opaque selling becomes more and more preferred over direct last-minute selling as the probability of having high demand increases. At the extreme, firms will never use direct last-minute sales when there is no demand uncertainty but they may still employ the opaque sales channel.

3 - Channel Structure and Competition in Multiple Channel Marketing Systems

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Firms face substantial opportunities and challenges when expanding their distribution systems. Should manufacturers with extant indirect channels continue to use intermediaries in the new channel? What should manufacturers with extant, vertically integrated channels do? When does dual distribution represent an optimal channel structure? This research uses game-theoretic modeling to explore the implications of competition for the optimal channel structure decision for a firm with multiple channels.

4 - Dynamic Price Interactions in a Distribution Channel

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When a manufacturer and its retailer are involved in setting prices dynamically in distributing a product over time, not only do they inter-temporally compete against themselves, but they also compete against each other to maximize their benefits. To investigate the issues related to channel dynamics in new product pricing and distribution, we extend the analysis of traditional double-marginalization problem to an inter-temporal dynamic setting. Our game-theoretical model analytically generates a number of managerially important insights: (1) Prior empirical study has suggested that managers in many situations are compelled to engage in myopic marketing management by replacing marketing strategies that produce superior future profits with those that generate an immediate payback. Although such a short-term focused behavior is typically considered as detrimental from a long-term perspective, we show that firms in a distribution channel can benefit from pricing myopia if their objective is to maximize the net profit over the entire selling horizon. (2) While pricing myopia can improve channel efficiency, when the channel members have discretion to choose between myopic and forward-looking pricing rules, we show that their bounded rationality will lead them to be forward-looking, and thus they are trapped into a prisoner's dilemma. (3) We show that strategic decentralization could lead to increased long-run profitability for an integrated channel when the pricing managers are more focused on the short-term profits. Past research has shown how decentralization can mitigate inter-brand competition and intra-brand competition. We add another upside of decentralization by showing that it can mitigate inter-temporal competition.

■ FA11

Port McNeill

eCommerce-Recommendation Systems

Chair: Andrea Godfrey, University of California, Riverside, Anderson Graduate School of Management, Riverside, CA, United States of America, andrea.godfrey@ucr.edu

1 - The Effect of Network Structure on Demand in Electronic Commerce

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The network of hyperlinks between pages on ecommerce sites direct the flow of attention of consumers browsing these sites. The process of browsing an ecommerce site can therefore be viewed as being analogous to walking the aisles of a physical store. The hyperlinked network structure of product pages is the electronic commerce equivalent of the "aisle structure" and the network position of a product is its virtual "shelf placement". This paper studies the extent to which the presence of a product's neighbors in this electronically constructed network of aisles influences the individual demand for a product sold in an electronic market. We provide the first estimates that identify the magnitude of the effect that hyperlinked recommendations have on demand, separating this from how "invisible" complementary products with no electronic visibility might influence demand. We show that the presence of recommendation hyperlinks amplifies demand complementarity almost four-fold on average. We also discuss how the magnitude of this amplification varies across products of different vintage, products of different categories and products of different popularity.

2 - My Mobile Music: An Adaptive Personalization System for Digital Audio Players

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New information technologies increasingly make it possible for service providers to adaptively personalize their service, fine tuning the service over time for each individual customer, based on observation of that customer's behavior. We propose an "Adaptive Personalization System" and illustrate its implementation for digital audio players, a product category with rapidly expanding sales. The proposed system automatically downloads personalized play-lists of MP3 songs into a consumer's mobile digital audio device and requires little proactive user effort (i.e. no explicit indication of preferences or ratings for songs). The system works in real-time, and is scalable to the massive data typically encountered in personalization applications. A simulation study shows the Adaptive Personalization System to outperform benchmark approaches. We implemented the Adaptive Personalization System on Palm PDA's and tested its performance with digital audio users. For actual users, the Adaptive Personalization System provides substantial improvements over benchmark approaches both in terms of the number of songs listened to and listening duration.

3 - Recommending a Recommendation Agent: The Impact of Message Framing on Using a Recommendation Agent

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In order to help consumers cope with "choice overload" resulting from an increased variety and availability of products and services, companies have introduced recommendation agents (RA) to facilitate consumers' decision-making. Despite recent evidence that RAs can significantly improve utility, consumers are still relatively reluctant to use them. It has been suggested that the way benefits and costs of RAs are presented affects consumers' likelihood to adopt them. Up until now, however, no research has disentangled which presentation is the most effective in stimulating the RA adoption. Furthermore, it remains unclear what mechanisms are underlying the potential effects. Drawing from research on message framing, two

experiments were conducted. In the first experiment, we extend the existing message framing design by a novel third dimension (desirable/undesirable action framing) that allows us to better capture the unique context of RAs where retailers can stimulate the use of a RA or advise against doing the opposite of searching oneself. In the second experiment, we show how product category involvement moderates the previous-found framing effects. Our results clearly show the importance of incorporating the undesirable/desirable action framing: advising against searching oneself was more effective at increasing the decision to use a RA. We also find clear effects of the moderating impact of involvement: whereas losses loom larger than gains in high involvement categories, the reverse was found for low-involvement ones. Consequently, we show that not all frames are equally effective and that their effectiveness depends on the level of category involvement.

4 - Attribute-based Co-clustering Recommendation Systems and Factors that Impact Recommendation Quality

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To increase customer repurchasing and loyalty, retailers with large product offerings are increasingly employing recommendation systems. Because of the growing importance of recommendation systems as a customer management tool, retailers and analysts are continually striving to improve the effectiveness of these systems in their particular settings. This research contributes to our understanding of recommendation system effectiveness in three respects. First, we present a new methodology, attribute-based co-clustering, which, in addition to purchase information, allows the analyst to incorporate both customer characteristics and product attributes to produce recommendations. This approach has not previously been evaluated in recommendation system contexts. Second, we compare the performance of the proposed approach with a related latent class segmentation approach and a widely applied collaborative filtering approach in two contexts: recommending a set of products for a customer to purchase and recommending a set of customers for a product to target. Third, we identify factors that impact the quality of recommendations for each approach. Results indicate that the quality of recommendations generated using attribute-based co-clustering tends to be more stable than the quality of recommendations generated using latent class segmentation or collaborative filtering. Further, we find attribute-based co-clustering recommendation quality improves when customer characteristics and product attributes are predictive of choices.

■ FA12

Parksville

Factors Influencing Price Perception

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1 - An Empirical and Experimental Analysis of Customer Switching Between Two- and Thee-part Tariff Plans

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In many service markets, firms offer three-part tariff contracts in conjunction with, or as a replacement to, existing two-part alternatives. Understanding customer switching behavior between these pricing structures is crucial to drawing conclusions about firm profitability. However, even though the literature on the adoption of multi-part tariffs is extensive, to date there has been no empirical research that has examined actual switching behavior from two-part to three-part tariff plans. In this research, we first analyze a unique dataset containing 12 months of usage and tariff choice behaviour for a sample of mobile phone subscribers from a telecommunications company in Asia. The uniqueness of this data lies in the fact that we observe a natural experiment in which, after having observed consumers choices under two-part tariff plans, the company launched a three-part tariff scheme, while retaining the existing two-part tariffs. This market environment allows us to identify which factors ultimately determine customer switching behavior between these two pricing schemes. Consistent with economic theory, we find that light users are more likely to switch to three-part tariffs, which in itself justifies the inclusion of this type of contract. We also observe behavior that is consistent with the various "flat-fee" biases previously documented in the literature. To confirm (or discard) the underlying psychological mechanisms, we complement this analysis with a series of focused lab experiments.

2 - An Integrated Model of Multiple Types of Reference Prices on Satisfaction

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This article examines two concerns raised in recent reviews on reference prices (Kalyanaram and Winer 1995; Mazumdar, Raj, and Sinha 2005). First, prices paid by other consumers, a core element in aspirational reference prices, were overlooked. Second, relatively little is known on how reference prices influence consumer satisfaction in post-consumption contexts. This article examines whether the influence of different types of reference price on consumer satisfaction differs and develops a model to capture the influence of reference price on consumer satisfaction. Based on Bolton, Warlop, and Albaáfs (2003) multidimensional transaction space framework, it proposes that the influence of reference prices on satisfaction can be separated into three types: across-time reference price, across-consumer reference price, and across-firm reference price. Specifically, this article develops a satisfaction model that incorporates the concept of reference prices, perceived fairness, retrospective regret, and expectation disconfirmation to show how reference prices lead to consumer satisfaction. Findings from two experiments provide converged evidences that perceived fairness, experienced regret, and expectation disconfirmation mediate the relationship between reference prices and satisfaction. The proposed model fits the data well and is better than two competitive models. The influence of the three types of reference prices is different, after the magnitude and direction of reference prices are controlled for. The relative impact of different types of reference prices on satisfaction differs because each type of reference price influences perceived fairness, experienced regret, and expectation disconfirmation differently.

3 - Extreme Price Points and Their Effects on Brand Purchase

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Extreme price points are known to affect price attractiveness judgments of individuals. Such findings are grounded in range theory. Extreme values have also been found to affect recall ability through their degree of incongruency with previous information. We extend this stream of research in psychology, and apply it to the marketing domain by examining if consumers use extreme price points as reference prices. Our reference price model is based on a simultaneous evaluation of a gain and a loss each time consumers are exposed to an actual price. We use actual market data to show that minimum and maximum prices affect consumers' evaluations of brand utilities, their brand choice, and quantities of brand purchase. Our empirical analysis leads to findings that have managerial implications. To account for the impact of dual internal reference price points, managers might need to consider modifying their traditional pricing strategies; these considerations could be applicable for both EDLP (every day low price) and Hi-Lo type stores. In addition to these, we discuss other managerial implication such as those related to the pricing of new products.

4 - Perceived Price Unfairness: When less is more

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Price unfairness has been shown to be an important determinant of store loyalty and patronage intentions. Hence there is a need to examine the fairness perceptions of practices (HiLo pricing, yield management) in which prices vary across customers. Shoppers' in a changing price environment, might often find that they have paid a price which is more than one comparative other as well as less than another comparative other. This study looks at the condition in which an individual finds himself/herself to be disadvantaged, as well as equally advantaged with comparative others, i.e. there are multiple reference points. It also investigates the effect of product price, magnitude of price variation with respect to comparative others and of framing conditions on price unfairness perceptions. The study examines these, through two between subject experiments. The Anova results from the first experiment show that unfairness results when one finds a comparable other purchasing the product at a higher price and another at a lower equivalent price. This indicates that fluctuations in prices even when one is "advantaged" might lead to unfairness, given that there are others who are still better off. The results of the second experiment demonstrate that unfairness is higher for a high priced product than for a low priced product. More importantly, the magnitude of price variation with respect to others is not significant. This implies that when comparing with others, people are more concerned with inequity per se rather than the magnitude of inequity.

■ FA13

Orca

Branding Issues

Chair: Joseph Chang, University College Professor, Vancouver Island University, 900 Fifth Street, Room 366, Building 250, Nanaimo, BC, V9R 5S5, Canada, changj@mala.ca

1 - Customer-brand Relationship: Two Empirical Studies on an Integrative Model

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Extant literature on relationship marketing has noticed the important roles of trust, perceived value, and customer satisfaction in maintaining a health and reciprocal customer-brand relationship. Although previous research has examined the relationship between some of these important constructs of relationship marketing, no research has attempted to integrate trust, perceived value, customer satisfaction, brand identification and loyalty into one model to test their different roles and relationships. The present study aims to contribute to this field by incorporating established constructs and construct of emerging significance into a single-dimension model of brand loyalty in sample one (snowball sampling, n=215), and a two-dimension model of brand loyalty consisting of positive behavior (PB) and resilience to negative information (RNI) in sample two (mall-intercept sampling, n=202). Both studies were analysed by a series of structural equation models, which suggested the following observations. First, PB is a) directly influenced by customer satisfaction and brand identification; b) indirectly influenced by brand identification via partial mediation of customer satisfaction; c) indirectly influenced by perceived value via the full mediation of customer satisfaction. Second, RNI is a) positively predicted by trust and customer satisfaction; and b) indirectly influenced by brand identification via full mediation of customer satisfaction. Third, brand identification is positively influenced by trust but not by perceived value; whereas customer satisfaction is positively influenced by both perceived value and brand identification. And finally, brand identification fully mediates the relationship between trust and satisfaction.

2 - The Constitutional Elements of Online Brand Identities

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Research about online brands is still at an infant stage. This is especially true for the concept of brand identity, which is salient to traditional branding literature. Until now, there is no prior research as to what an online brand identity is. In this research, we identify online-specific identity elements with a literature review and provide a model of the concept. Since the identity approach explicitly emphasizes the consideration of the customers' perception of the identity (the brand image) as a key driver of success, we analyse the identity concept from a customer perspective. By doing this, we aim at identifying those elements, which customers consult during the attitude formation process. According to attitude research, attitude formation is based on a comparison of ideal brand attributes and actual attributes of brands. The discrepancy between the two determines the favorability-level of the attitude towards a brand. Following this theoretical understanding of attitude formation, we first identify the ideal attributes of and online brand identity. Furthermore, the empirical analysis will also show weather the new elements are better able to explain online brand identities than traditional models. Additionally to this normative approach, we aim at analyzing concrete online brands in a follow-up research. We will test how differences between ideal attributes and the perception of actual attributes of a brand influences attitude not only in a cognitive but also in an affective manner.

3 - Customer's Experience and Brand Image

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Customers' experience with a product or service and their image of its brand are so intertwined that it is hard to differentiate them. While conceptually these are distinct constructs, results from survey data often indicate a very high correlation. And this too may make conceptual sense. The fact is that a current brand's image is created over time and it is the result of numerous factors including past experience and prior reputation. Using structural equation modeling we conceptualize customer experience and image as latent variables measured by several items from survey data from different industries (Banking, Telecom, Brokerage), and we model the relationship between both constructs. We hypothesize that there is a recursive relationship between them where customers' experience is a big driver of their brand image, but, at the same time, image has an influence on customer's perception of the experience. We found that when customers have severe problems with a product or service they tend to rate poorly all aspects of the experience even though they are not related to the specific problem. This suggests that a problem in a specific aspect of the experience may affect the image of the brand, which in turn may impact negatively the customer perception of the overall experience or mitigate that negative perception if the brand reputation is fairly strong. The implication of this is that companies need to pay special attention to sensitive areas in their relationship with customers, such as problem resolution which tends to have a strong impact on customer's image of the brand.

4 - The Indicativeness of Brand Extension Information on the Judgment of Family Brand Entitativity

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This research examines the indicativeness of the coherence and valences of brand extension information on the judgment of family brand entitativity. Results indicate that positive (vs. negative) brand extension information is indicative of the judgment of family brand entitativity, regardless of the coherence of brand extensions. In particular, positive (vs. negative) coherent extension information is indicative of high entitative family brands over low entitative ones. In contrast, positive (vs. negative) incoherent extension information is indicative of low entitative family brands over high entitative family brands.

■ FA14

Finback

Advertising Issues

Chair: Jie Zhang, Assistant Professor of Marketing, Robert H. Smith School of Business, University of Maryland, 3446 Van Munching Hall, College Park, MD, 20742, United States of America, jiejie@rhsmith.umd.edu

1 - Understanding Voter Response to Political Advertising Through Election Cycles with Limited Information

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Voter response to political advertising has been studied extensively in the political science literature in the last decade. Most of the existing studies are done in the labs or using limited voter turnout data. With advertising data from a consecutive of 3 election cycles (1996-2004), we study voter response to political advertising in terms of not only voter turnout (vote or not) but also candidate choice (whom to voter). Our proposed model uses aggregate-level voter data such as demographics and voter polls, augmented with voter survey data such as political interests and candidate goodwill, to draw inferences. We find significant evidence of voter choice state-dependence in the multi-election cycle, and based on these estimates, we predict the outcome for the 2007-2008 elections.

2 - The Role of Advertising and Consumer Interest in the Motion Picture Industry

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The motion picture industry is well known for its high advertising expenditures. Evaluating the impact of advertising on revenue, however, is not simple since a big proportion of the advertising budget is spent before any revenues are realized. We propose an empirical model that includes a measure of consumer interest both prior to and following the theatrical release of a movie. This model explicitly investigates how advertising shapes the consumer interest before the movie release, and how advertising and consumer interest affect the revenues and screen supply after the movie release. We measure consumer interest by using weekly consumers' search for movie information on a popular internet database. We develop a joint model of consumer interest, box office revenues, and number of screens; all of which are affected by advertising. Our model accounts for unobserved movie heterogeneity, screen decision endogeneity, and cross-equation correlations. We use Bayesian estimation methods, and calibrate our model on a dataset that covers 1121 movies from 2001 to 2005. We

find that consumer interest and advertising evolve similarly for all movies prior to release, but have different effects on revenues and screen supply of major studio movies compared with minor studio. Advertising increases box office revenues mainly by inducing consumers to learn more about the movie, and influencing the exhibitors' screen allocation decision. The pre-release and post-release evolution of consumer interest can be a valuable and inexpensive tool for measuring advertising effectiveness and predicting box office revenues. Finally, we show that ignoring consumer interest and other proposed modeling issues would result in overestimating advertising elasticity and overspending on advertising.

3 - Moment-to-moment Optimal Branding in TV-Commercials: Preventing Avoidance by Pulsing

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This paper develops a conceptual model of branding, pacing and attention effects on the likelihood of viewers' TV commercial avoidance (i.e. zapping), formalizes it in a generalized Dynamic Linear Model using a State Space approach, and estimates it in a Bayesian framework. It uses combined eye-tracking and moment-to-moment zapping data on 31 commercials for almost 2000 participants to calibrate the model, and shows that in particular brand activity variables (i.e. presence, position, duration, cardinality), complexity of the scene (image and pace) and the individual and aggregate level gaze-point dispersion have significant zapping effects. Implications for advertising management and theory are addressed via an optimization routine that devises an optimal policy for brand placement in commercials, based on the parameter estimates of the empirical model.

4 - Sales Effects of Attention to Feature Advertisements: A Bayesian Mediation Analysis

Jie Zhang, Assistant Professor of Marketing, Robert H. Smith School of Business, University of Maryland, 3446 Van Munching Hall, College Park, MD, 20742, United States of America, jiejie@rhsmith.umd.edu, Michel Wedel, Rik Pieters

Numerous studies have consistently demonstrated that the presence of a feature advertisement can increase the sales and market share of the featured product. But little is known about how feature ad characteristics (such as size, color, location of the ad) affect the sales outcomes and how their effects take place. Psychology theories and prior research on visual attention predict that feature ads lead to behavioral outcomes through their effect on consumers' attention. Building upon this theoretical conjecture, we propose a Bayesian statistical model of mediation analysis to study how feature ad characteristics affect sales of the featured products and the mediation role that attention plays in these relationships. Our approach takes into account endogeneity in the key variables involved and overcomes limitations of standard mediation analyses. Through a series of mediation analyses, we show that attention to a feature ad affects sales of the featured product above and beyond the mere presence of the ad, and that a naive approach without considering the mediation role of attention produces biased estimates of the effects of feature ad characteristics on sales. Our methodology and findings offer important insights for practitioners in guiding their feature advertising planning and design decisions.

■ FA15

Granville

Organization Theory Issues in Marketing

Chair: Qiong Wang, Assit. Professor of Marketing, Penn State University, 435 Business Building, Smeal College of Business, University Park, PA, 16802, United States of America, qiongwang@psu.edu

1 - Not Complacent but Scared: An Alternative Explanation for Strategic Inertia Among Successful Firms

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Changes in the marketplace require prompt and swift actions from managers. Failure to undertake appropriate strategic change has brought about the decline of numerous strong companies. Managerial complacency is the most commonly offered explanation for the lack of strategic change. However, research in psychology and decision-making suggests that complacency may not be the best predictor of managers' conservatism. Based on regulatory focus theory and prospect theory, we propose that competitive success prompts an increased sense of responsibility in managers resulting in defensive, risk-averse strategic choices. Furthermore, perceived costs associated with the loss of leadership outweigh possible gains that can be achieved by changing currently successful strategy, causing managers to assume a defensive attitude and to concentrate on preserving the status quo. In this study, we tested this proposition using the data collected from the Markstrat simulation. Results show that managers with defensive attitude are less likely to significantly change their strategy. There also is indication that managers of leading firms may be more defensive than managers of challenger firms. These results suggest that, instead of combating "managerial complacency" and further aggravating risk-averseness, it may be more productive to loosen the pressure on managers and allow them to experiment with new/innovative strategies.

2 - Shrinking the Organizational Hierarchy - The Case of Multi-unit Franchising

Rupinder Jindal, Assistant Professor, University of Houston, 334 Melcher Hall, 4800 Calhoun, Houston, TX, 77204, United States of America, rjindal@uh.edu

Firms are usually hierarchies of supervisor-subordinate relationships. In a typical supervisor-subordinate relationship, a subordinate effectively satisfies only a fraction of the directions of its supervisor. Hence, successive layers of such relationships in a hierarchy often lead to a cumulative loss of control. To reduce this loss of control, the paper suggests slicing a hierarchy into two components and reuniting the components with an independent contract. In contrast to a supervisor-subordinate relationship among employees, a contract represents a relationship between two legally independent entities. The substitution of a supervisor-subordinate relationship with an independent contract improves the alignment of parties' incentives. Improved alignment of incentives shrinks the depth of the hierarchy required. Further, a firm can shift a part of its lower-level hierarchy on to its contractual partners. The paper develops and tests this theory in the domain of multi-unit franchising. The paper makes three contributions. First, it contributes to literature on organization theory by proposing an organizational structure that can reduce the problem of hierarchy and still deliver the benefits of vertical integration by proxy. Second, it contributes to literature on franchising by identifying the conditions driving the choice of multi-unit franchising viz. a viz. single-unit franchising. Third, empirical evidence suggests organizations are increasingly outsourcing their business functions such as research and development, manufacturing, supply chain logistics, and sales and distribution. Besides providing a theoretical basis for outsourcing, the paper provides broad guidelines to managers for choosing their outsourcing partners.

3 - The Roles of Strategic Actions in Making Sense of Market Information and Achieving Competitive Advantage

Qiong Wang, Assit. Professor of Marketing, Penn State University, 435 Business Building, Smeal College of Business, University Park, PA, 16802, United States of America, qiongwang@psu.edu, Yinghong Wei

Drawing resource-based view (RBV) and applying strategic sense-making perspective, the authors propose a theoretical framework that addresses the importance of integrating strategic actions with strategic resources to sustain a firm's competitive advantage, which in turn enhances its financial performance. Specifically, strategic actions such as organizational responsiveness and innovation strategy are used by the firms to capitalize on strategic resource such as market information processing for the sake of achieving competitive advantage and superior performance. In addition, we also propose that among strategic actions, innovation strategy could be used by a firm to influence the level of organizational responsiveness as well as the effectiveness of organizational responsiveness in driving competitive advantage. We tested our framework through surveying 1,800 middle-managers from 180 manufacturing firms in China. The empirical results support our theoretical framework.

■ FA16

Galiano

Retail Category Management

Chair: Debu Talukdar, SUNY at Buffalo, School of Management, 215 E Jacobs Center, Buffalo, NY, 14260, United States of America, dtalukda@buffalo.edu

1 - A Category Management Model of Dynamic Retailer Decisions

Karthik Sridhar, PhD Student, SUNY at Buffalo, 215 Jacobs Management Center, University at Buffalo (North Campus), Amherst, NY, 14260, United States of America, ksridhar@buffalo.edu, Rajesh Shah, Ram Bezawada

Category Management by retailers entails effective pricing strategy, optimal merchandising levels and also other demand management variables in order to influence sales, category revenues and long term profits for retail-

er. It becomes a challenging task for a retailer to efficiently process managerial insights into a comprehensive forecasting model and one approach which has emerged is vector autoregression based multi-equation models. We propose a framework for determining efficient and integrative category management that considers multiple factors from retailers' perspectives. We use Bayesian vector autoregression (BVAR) model as this approach avoids the over fitting problem associated with classical VAR models. We model CPG category forecasts as function of a mix of continuous and discrete variables found in the scanner data along with variables capturing managerial intervention as response to dynamics of marketplace. We exploit the ability of Bayesian VAR models to have large variable set by incorporating 11 endogenous and 7 exogenous variables. Our analysis of category management decisions and its decision support system involves: innovation accounting, forecasting, and counterfactual analysis. Bayesian time series models provide good platform for forecasting by their ability to incorporate various forms of prior beliefs. While minnesota prior has been the staple prior, we go ahead and test for the effectiveness of other priors proposed in econometric literature, namely, diffuse and normal-wishart which require relatively straight forward monte carlo methods to evaluate and also normal diffuse prior which requires complex importance or gibbs sampling algorithms.

2 - Joined at the Hip: How Retailers and Products Affect Mutual Consumer Satisfaction

Purush Papatla, Associate Professor, University of Wisconsin - Milwaukee, 3202 N. Maryland Avenue, Milwaukee, WI, 53211, United States of America, papatla@uwm.edu, Feng Liu, Yu Fan

The growth of online retailing has lead to increasing interest in the satisfaction of online consumers. Most of the work in this area, however, focuses on how retailer attributes affect satisfaction with retailers. In this research, we propose that, in addition to affecting satisfaction with retailers, some retailer attributes also influence consumer satisfaction with the product that is purchased. We also investigate how satisfaction with retailers/products has influence on each other. Manufacturers who distribute their products through online retailers, therefore, need to be aware of which retailer attributes affect consumer satisfaction with the product and what the relative importance of those attributes is. This will help them to select retailers who score well on these attributes and, thereby, increase customer satisfaction with their products. We collect data from a panel of over 2000 online consumers on how satisfied they are with a product that they purchased online and with the retailer that they bought it from. We also collect data on the consumers' assessments of the retailer on a number of store attributes such as the display of products and prices, speed of product shipment and assistance with shopping on the site. We then investigate the relationship between retailer satisfaction and store attributes as well as product satisfaction and store attributes. Our results suggest that some store attributes such as how promptly the retailer ships the product affect both product and retailer satisfaction. Interestingly, however, some retailer attributes affect satisfaction with the product while having no effect on retailer satisfaction.

3 - Retailer Coupons: Are Private Label-Prone Customers Profitable Targets?

Salome Nies, University of Frankfurt, Mertonstrasse 17, P.O. Box 80, Frankfurt/Main, 60054, Germany, salome.nies@wiwi.uni-frankfurt.de, Martin Natter

As coupons get more central to the marketing strategy of retailers and their loyalty programs, it becomes important to optimize their effectiveness and profitability. Private label prone consumers seem to be attractive targets for retailer coupons as they buy high-margin private labels and have been shown to be very deal prone. However, so far nothing is known about how coupon availability and varying face values affect their shopping behavior. This refers to questions on how intensively they use coupons, which face values they require in order to respond and whether they continue to buy private labels and to generate higher margins during coupon promotions. To close this gap, we conduct a large-scale field experiment and explore whether private label shoppers are attractive targets for retailer coupons. Specifically, we analyze whether they are more likely to respond to coupons than national brand shoppers. Additionally, we ask whether the shopping behavior of these segments is differently affected by the availability of retailer coupons and whether they differ in their reaction to face value variations. Answers to these questions contribute to the knowledge on coupon proneness and support retailers in optimizing target selection and face values.

4 - Opportunity Costs of SKU Reductions for Supermarket Retailers

Debu Talukdar, SUNY at Buffalo, School of Management, 215 E Jacobs Center, Buffalo, NY, 14260, United States of America, dtalukda@buffalo.edu, Amresh Kumar

The goal of this research is to demonstrate how the typical data generated from supermarket retailers' loyalty card program can be used to gain powerful insights that are relevant not only in the context of "marketing dashboard" metrics connected to retailers' strategies, but also in terms of better understanding of retail market dynamics in academic research. In recent years, the higher costs of carrying a large assortment of SKUs ("Store Keeping Units") as well as competition from lower cost, lower assortment-carrying discount retailers have led retailers to look for more efficient assortment strategies by eliminating cost-inefficient SKUs. In other words, a key focus has been on understanding the nature of the "tail" when it comes to supermarket retailers' product assortments. We develop a heuristic approach to empirically estimate opportunity costs of such SKU elimination strategy based on the typical retail scanner data available, and without requiring a priori data from actual reductions of SKUs under analysis. The opportunity cost estimate takes into account not only the direct cost from lost profit that is directly being generated by a SKU, but also the indirect cost from its elimination. We then analyze the nature of distribution of the estimated opportunity costs of SKU reductions across product assortments and its determinants in terms of category, store and market characteristics. We also investigate a key relevant dimension of underlying consumer behavior - their revealed SKU choice set size - across distinct category, store and market contexts. For our analyses, we use a scanner data set comprising all transaction data over 52 weeks for nearly a million consumers across 14 product categories in 34 stores of a regional supermarket chain.

Friday, 10:30am - 12:00pm

■ FB01

Junior D

Online Customization: Economic and Cognitive Considerations

Chair: Michael Braun, Assistant Professor of Marketing, MIT Sloan School of Management, One Amherst St., E40-169, Cambridge, MA, 02139, braunm@mit.edu

1 - The Pricing of Key Words

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Internet search is ascendant. In November 2006 alone, US internet users engaged 6.7BB searches on the 25 leading search engines. Attendant with this increase has been a rapid rise in key word search advertising expenditures, with North American advertisers increasing spending by 62% in 2006 to $9.7BB. Yet research on sponsored search advertising remains sparse especially with regard to the role of the search platforms such as Google, Yahoo! and MSN. To redress this consideration we develop a structural model of advertiser bidding behavior and consumer searches on these platforms and apply this model to a novel data set from a key word search website. Using this model we assess how various key word auction mechanisms affect advertiser bidding behavior and platform revenue. In addition, we consider how selling information about customer searches affects the knowledge state of advertisers and therefore their bidding behavior. This has consequences for the pricing of market intelligence. Finally, we integrate consider how user browsing histories can be integrated with key words to develop targeted bidding mechanism and explore the potential effects on site profits and consumer welfare.

2 - Modeling Consumer Search for Making Online Advertising Decisions

Alan Montgomery, Associate Professor of Marketing, Carnegie Mellon University, 5000 Forbes Avenue, Tepper School of Business, Pittsburgh, PA, 15213, United States of America, alm3@andrew.cmu.edu

Many consumers begin their purchase process at search engines such as Google, Yahoo, or MSN instead of traditional retailers. Consumers rely upon the search results provided by these engines along with paid advertising to make decisions about what sites to visit and subsequently which products to purchase. In this study we propose a statistical model that pre-

dicts consumer search and the probability of purchase using clickstream data collected from an online sample of consumers. A challenge in analyzing this data is the textual nature of the search strings and the scarcity of many search terms. We also consider how consumers will search based upon the specificity of the search term. This model is cast in the context of a hierarchical Bayesian model to overcome the limited information for many search strings and consumers. We illustrate how this model can be used to aid advertisers in making decisions about how much to bid, what phrase to bid upon, and the appropriate landing page for the consumer once they enter the web site.

3 - Cognitive Styles and Website Design

Michael Braun, Assistant Professor of Marketing, MIT Sloan School of Management, One Amherst St., E40-169, Cambridge, MA, 02139, braunm@mit.edu, Glen L. Urban, Clarence Lee, John R. Hauser

A cognitive style is the way in which a person receives and processes information. If a customer absorbs information from a website easily, then it is more likely that the site visit can be converted to a sale. The problem facing web marketers is that customers differ in their cognitive styles, ensuring that a "one size fits all" site design will stimulate sales from some visitors, but not others. Using data from a prototype website designed by BT Group (formerly British Telecom), we show that stated consideration and purchase probabilities increase when page characteristics are matched in concordance with a visitor's cognitive style. These findings have broad implications for marketers who are developing adaptive or customized e-commerce platforms.

4 - Morphing Websites to Match Individual Cognitive Styles

John R. Hauser, MIT Sloan School of Management, E40-179, One Amherst Street, Cambridge, MA, 02142, United States of America, jhauser@mit.edu, Michael Braun, Glen L. Urban, Guilherme Liberali

Some site visitors find on-line advice to be convenient and helpful, but others spurn this advice and want to take a more active role in their own purchase decisions and may prefer more-detailed data. In general, we expect that websites are more visited and more sales result if their characteristics (e.g., more-detailed data vs. virtual advisor) match customers' cognitive styles (e.g., more analytic vs. holistic). "Morphing" involves dynamically matching the basic "look and feel" of a website - not just the content - to cognitive individual styles. We infer cognitive styles from clickstream data with Bayesian updating. We then balance exploration (learning how morphing affects purchase probabilities) with exploitation (maximizing short-term sales) by solving a dynamic program (partially observable Markov decision process). The solution is possible with expected Gittins' indices. We apply the Bayesian updating and dynamic programming model to a BT Group (formerly British Telecom) website called the "Broad Band Advice Center". Based on market research data from 835 respondents exposed to this experimental site, we find that with perfect information on cognitive styles, the dynamic program learns a strategy that increases purchase intentions by 21%. In contrast, when cognitive styles are partially observable, purchase intentions can increase by almost 20%. Such increases represent many new customers and significant additional broad band revenue.

■ FB02

Junior C

Identifying and Estimating Variance Components in Choice Experiments

Chair: Cam Rungie, Senior Lecturer, School of Marketing, University of South Australia, North Terrace, Adelaide, SA, 5000, Australia, cam.rungie@unisa.edu.au

Co-Chair: Len Coote, University of Queensland, l.coote@business.uq.edu.au

Co-Chair: Towhidul Islam, University of Guelph, 50 Stone Road East, Guelph, ON, N1G2W1, Canada, islam@uoguelph.ca

1 - Latent Variable Modeling of Consumer Brand Preferences Using Best-worst Experiments

Len Coote, University of Queensland, l.coote@business.uq.edu.au, Bettina Cornwell

Latent variable models are well suited to the analysis of choice experiment data because of their ability to provide estimates of effects as well as variances. Typically, best-worst choice experiment data are analyzed with traditional choice models. For simple brand name only experiments, this analysis yields estimates of effects or measures of the strength of preference for the brands studied. Yet, the application of latent variable models to best-worst experiments provides estimates of effects as well as variances (and covariances), making it possible to estimate (measure) the strength of consumers' preferences for the brands studied and estimate (measure) the consistency of their preferences. First, using data from best-worst experiments, latent mean analysis provides measures of effects or preferences for each brand studied. These models are based on repeated choices and the have the advantage of controlling for measurement error in the estimation of effects. Furthermore, the analysis shows relationships among scales of best, estimates of effects from traditional choice models and estimates of latent means. Second, application of confirmatory factor analysis models yields measures of variance or consistency of preference for each brand studied. Finally, one can specify and estimate covariances among brand preferences, yielding further insights into consumers' choices. Methods and models are illustrated with data from a consumer setting and extensions to more complex best-worst experiments are discussed.

2 - The McFadden Trial: Variances for Repeated Binary Choice Under Bernoulli and McFadden (RUT) Conditions

Cam Rungie, Senior Lecturer, School of Marketing, University of South Australia, North Terrace, Adelaide, SA, 5000, Australia, cam.rungie@unisa.edu.au

In their simplest form the Bernoulli trial and random utility theory (the "McFadden Trial") both account for a consumer's choice between a finite number of discrete alternatives and the choice probabilities of each alternative. However, the two trials deconstruct the choice probabilities differently. Under stationary conditions, within consumer variation of discrete choices for a Bernoulli trial is a known fixed closed form function of the choice probabilities. In the case of the McFadden trial this variation is unidentified and confounded with the utilities of the alternatives. Biases are introduced if the Bernoulli trial is used to estimate the utilities of the alternatives for the McFadden trial because within consumer variation is not identified. When repeated Bernoulli trials are analysed across the population of consumers as in the beta binomial distribution, for example, further information is available. In particular, between consumer and average within consumer variance are partitioned and separately identified. In classical discrete choice experiments repeated choices from different choice sets typically are available but not fully used. The paper focuses on the potential to analyse repeated McFadden trials across a population of consumers. We begin by using simulations to demonstrate the biases in using Bernoulli trials to estimate McFadden trials. We then use additional simulations to examine the potential to use repeated choices to further specify distributions of discrete choices across a population of consumers and partition the variation for McFadden trials. We explore the potential to use repeated choices to further identify components of choice under RUT.

3 - Separating the Variance in Choice Within and Between Individuals: A Significant Proportion of So-called Preference Heterogeneity is in Fact Due to Variability Within Individuals

Towhidul Islam, University of Guelph, 50 Stone Road East, Guelph, ON, N1G2W1, Canada, islam@uoguelph.ca, Jordan Louviere

This paper focuses on relatively new ways to identify and estimate models for single individuals, which in turn leads to the ability to separate variability in choices between people from variability in choices within people over repeated choice occasions (experimental trials). We briefly review theory and methods for estimating models for single individuals that relies on repeated best and worst questions in each choice to obtain as complete a ranking of the choice options as possible, together with designing choice experiments to be as statistically efficient as possible, which relies on new design theory by Street and Burgess (Wiley, 2007). Using the new theory and methods, we present several case studies in which we apply the ideas to model individuals, and demonstrate that in each case the differences in the variability within individuals explains significant proportions of the observed variability in the estimated attribute parameters across the sample. Of particular concern and interest is the finding that estimated price parameters are consistently impacted by within-individual variability differences such that larger/smaller within-individual variability is associated with smaller/larger estimated price parameters, all else equal. In turn, this suggests that current models that do not take within-individual variability into account will produce biased and misleading elasticity measures as well as derived measures based on estimated price effects, such as willingness-to-pay. Our findings are consistent with those reported by Louviere (2003

a,b) in CenSoC working papers, Louviere and Eagle (2006 Sawtooth Software Proceedings), Louviere's recent presentation at the Marketing Science-Wharton Practice Conference (October 2007), Keane and colleagues (Wharton Choice Symposium, Workshop Report, forthcoming 2008) and Magidson and Vermunt (Sawtooth Software Proceedings 2008). We conclude with a discussion about useful directions for future research and implications for marketing practice.

■ FB03

Pavilion D

Special Session on Marketing and Health

Chair: Stefan Stremersch, Chaired Professor of Marketing and the Desiderius Erasmus Distinguished Chair of Economics, School of Economics, Erasmus University Rotterdam, Burgemeester Oudlaan 50, Rotterdam, ZH, 3062PA, Netherlands, stremersch@few.eur.nl

1 - Investigating Dynamic Multiproduct Sales Impacts of Pharmaceutical Product Life-cycle Extension Strategies: Insights from the Rx and OTC Antacids Market Following Prilosec OTC Entry

Murali K. Mantrala, University of Missouri at Columbia, 438 Cornell Hall, Trulaske College of Business, Columbia, MO, 65201, United States of America, mantralam@missouri.edu, Yihui (Elina) Tang, Gila E. Fruchter

Close to $63 billion worth of branded prescription (Rx) drugs are set to lose their patents between 2007 and 2012, paving the way for cheaper generic replicas which, aided and abetted by cost-conscious health insurers, can rapidly wipe out the bulk of a branded Rx drug's market. To preserve their sales and growth in these circumstances, branded drug makers are proactively pursuing and implementing base product lifecycle and market exclusivity extension strategies such as introducing next generation versions in the Rx market and/or reduced-strength versions for the over-the-counter (OTC) medicines market. For example, the maker of the blockbuster antacid Rx drug Prilosec (omeprazole) launched a next generation version (Nexium) before Prilosec Rx patent expiry and then Prilosec OTC following the entry of generic Rx omeprazole. So far, however, the impact of such moves on the sales evolution of all therapeutically related products within and across the Rx and OTC drug markets has not been comprehensively assessed. In this research, we develop and apply multiproduct growth models to investigate dynamic multiproduct interactions encompassing the Rx and OTC antacids markets around the time of Prilosec OTC entry. The research utilizes a unique dataset that contains observations on weekly sales as well as prices of all Rx and OTC antacids products over a three-year period and offers detailed insights into the nature and evolution of multiproduct interactions that occurred in this famous case. We discuss the implications for branded pharma product lifecycle management and revenue protection strategies within the prevailing regulatory and payer policy environment. More generally, this research contributes to the relatively sparse extant literature focused on multiproduct growth models.

2 - Modeling the Effects of Marketing Expenditures on the Components of a Diffusion Model for New Prescription Drugs

Jaap E. Wieringa, Associate Professor of Marketing, University of Groningen, P.O. Box 800, Groningen, 9700 AV, Netherlands, j.e.wieringa@eco.rug.nl, Peter S.H. Leeflang, Enar Ruiz Conde

In many firms marketers have a difficult time justifying their expenditures in terms of direct return on investment. Marketing productivity could increase if managers had been able to measure it. The recent call for more attention for accountability, marketing metrics and dashboard marketing may be helpful in this respect. One approach to measure the effects of marketing expenditures is to decompose the sales in relevant components. These components/metrics are related to marketing expenditures and other relevant independent variables. Earlier examples of this approach study the decomposition of sales effects due to a promotion, the decomposition of the sales impact of promotion-induced stockpiling and the decomposition of the effects of loyalty programs. The objective of this study is to determine the effects of marketing expenditures on the speed of diffusion of different sales components of new drugs, viz. trial sales and repeat sales. To this end, we develop a two-step analysis. In the first step we estimate the components from aggregate sales data. The second step is a cross-sectional analysis to determine the effects of marketing expenditures on the diffusion speed of trial and repeat sales. We also investigate the effect of other drivers of diffusion speed, such as market-, firm- and brand-characteristics. Although drivers of diffusion speed of trial sales have been investigated in previous studies, there is not much evidence about the effects of these drivers for pharmaceutical products. Also, the drivers that determine repeat sales are generally not known. The analyses in this study are performed on 112 new branded prescription drugs across 42 drug categories and refer to monthly data covering 8 years, which allows us to develop potential generalizations or regularities regarding the diffusion speed of trial as well as repeat sales of new prescription drugs in the US market. Our results reveal that marketing activities have different effects on the speed of diffusion of each sales component. While detailing influences both speed of trial sales and speed of repeat sales, we find that medical journal advertising affects the speed of trial sales, but not the speed of repeat sales. Direct-to-consumer advertising has a stronger effect on speed of repeat sales than on speed of trial sales. A possible explanation for these findings is that the information function is stronger for medical journal advertising, whereas the persuasion function is stronger for direct to consumer advertising. We also find evidence for other variables affecting the speed of diffusion. Interestingly, we find that later entrants do not only have higher speed of trial sales but also have a higher speed of repeat sales. Also, new drugs designed for treating higher risk diseases tend to have lower speed of both components, indicating that physicians are risk-averse in their adoption of new products. This is further illustrated by our finding that innovativeness of the new drug affects the speed of repeat sales but not the speed of trial sales: the competitive advantage of marketing an innovative product is only substantiated after physicians have gained some experience with the new product.

3 - A Multi-category Model of Physician Prescription and Detailing

Xiaojing Dong, Assistant Professor in Marketing, Santa Clara University, St. Joseph Hall 102, 500 El Camino Real, Santa Clara, CA, 95053, United States of America, Xdong1@scu.edu, Pradeep Chintagunta, Puneet Manchanda

A major target of sales force efforts and marketing activities in the pharmaceutical industry is the primary care physicians (PCP). This is because, as a group, PCPs are the largest segment of physicians, they prescribe across a wide range of product categories and account for a significant proportion of all prescriptions in large therapeutic categories. An important question for firms is how to manage resource allocation across categories in marketing to the same physician in the presence of different competitors across categories. In order to address this question, the firm needs to understand two issues. First, how does the physician respond to own as well as competitors' marketing activities? In other words, firm needs to measure the effectiveness of their marketing activities in each category for each physician. Second, do these marketing activities present any spillover effects across categories by the same firm to the same physician? If the answer is yes, firm can allocate their marketing efforts effectively, by leveraging the information on physicians' response to marketing activities across competitors as well as categories. Recent literature in marketing and economics have witnessed a surge of interest in understanding physicians' responses to firms' marketing activities (such as Gonul et al 2001, Manchanda et al 2004, Narayanan et al 2005, Dong et al 2007). All these studies have focused on analyzing physicianns' responses within one therapeutic category. Our study is the first attempt to capture cross category effect when studying how marketing efforts impact physicians differently both across hysicians and across categories. Given that the detailing decisions are not random across physicians, our model takes into account of the endogeneity of detailing decisions in our analysis. In this approach, the model contains two components. In the first part, we model how physicians' prescription decisions are impacted by sales visits from rival firms. As the number of prescriptions written by a physician in a given time period.

4 - The International Launch and Pricing of Pharmaceutical Innovations

Isabel Verniers, PhD Candidate, Faculty of Economics and Business Administration, Ghent University, Tweekerkenstraat 2, 9000 Gent, Belgium, Isabel.Verniers@Ugent.be, Stefan Stremersch, Christophe Croux

Although marketing scholars have always posed a strong interest in launch decisions (for example the order of entry literature), new product introduction timing in the international realm has received much less attention. However, decisions such as when and where to launch are highly relevant for today's globally operating firms. This study focuses on the interplay between the introduction timing decision and the introductory

price decision, holding into account interdependencies between both decisions. The pharmaceutical market is the research context we focus on. There have been some efforts within the economic entry literature to examine the launch timing of drugs (Kyle 2007 and Danzon, Wang and Wang 2005) in relation to a country's regulatory regime. However, none of these papers have explicitly connected the launch timing to the company's strategic behavior and the price outcome of this decision, given a country's regulatory profile. We address this shortcoming by examining launch timing and price for 15 molecules in 53 countries worldwide (both developing and developed countries) between 1994 and 2007. This study yields important managerial implications and public policy insights. Moreover, this study has a high societal relevance because it focuses on countries' drug availability to patients.

■ FB04

Port Alberni

Network Effects and Social Influence

Chair: Michael Haenlein, Assistant Professor, ESCP-EAP European School of Management, 79 Avenue de la Republique, Paris, 75011, France, haenlein@escp-eap.net

1 - Identify the Influentials and Imitators in Fashion Contagion Using Scanner Data

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Opinion leaders or early adopters are a key group for companies to target when they introduce a new product. To identify them, manufacturers typically survey consumers using questions about their community involvement. However, this way of identification takes what people claim themselves to be at the face value, and it is usually not very useful for identifying individuals. In recent years, online communication data are used to track WOM and to identify individual opinion leaders. However, this approach ignores offline opinion leaders. In addition, online communication data frequently lacks any real behavior information. Furthermore, this approach may also overlook those who influence others not by "voice" (to spread information about a product via face-to-face or online conversations) but by "actions" (to advocate implicitly through visibility of their adoption). Using large scanner data of a fashion department store in China, we develop an approach of measuring implicit directional influences among individual customers via their sequential purchase patterns and demographic indices, and we model the effect of fashion contagion on individual customer's adoption while controlling for price dropping effect, to help managers identify and predict influentials and imitators' behavior at individual level. Effects' magnitude for different product categories are also estimated and compared.

2 - Social Communication and Durable Goods Pricing

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Consumers usually rely on social communication (i.e., word of mouth) to obtain product information, especially for durable goods where learning from own consumption experience is limited or even infeasible. This study investigates the impact of social communication on the pricing behavior of a monopoly firm selling a durable good. We show that social communication can lead to aggregate dispersion in the consumers' ex-post valuations, influencing the firm's future pricing behavior and hence the consumers' incentive to postpone current purchases. This force can endogenously bring up the time inconsistency problem in durable goods pricing when consumers are homogenous in willingness to pay for product fit, hurting the firm's profitability while benefiting the consumers. In the alternative case with heterogeneous consumer willingness to pay for product fit, social communication can either exacerbate or soften the time inconsistency problem. As a result, whereas the main effect of social communication on the firm's equilibrium future payoff is unambiguously negative, its strategic impact on the consumers' strategic behavior in purchase timing can be positive and dominant, which can improve the firm's equilibrium ex-ante profit while hurting consumer surplus and social welfare. This implies that there may exist a time inconsistency in the firm's preference for social communication.

3 - The Effects of Social Networks on Value Perceptions

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Exchange is a concept central to both markets and marketing. In financial markets, for exchange to occur, market participants must have different perceptions of value of the financial instrument being traded. A key research question is: How do these differences arise? Our research explores how social influences shape the perceptions of value of traders participating in a real money financial market. We expect that traders who share social ties are likely to share information as well as hold similar opinions and attitudes. These commonalties lead to similar perceptions of value. Our field experiment involves a real money, anonymous online electronic futures market used to predict forthcoming movie revenue. In addition to measures of social ties among traders, we analyzed the information traders use to establish initial value estimates. We find that social networks influence trader perceptions of value. Traders with proximate positions in the social network consider similar determinant attributes and evaluate similar comparable movies. These lead to comparable forecasts of box office revenue. We will explore these influences on trader behavior and outcomes. This research contributes to our understanding of the role of social networks in financial markets in two important ways. First, we show how social connections influence an individual's perception of value and price. Second, our results demonstrate how patterns of social relations create the disparate perceptions of value that form the basis for exchange within financial markets.

4 - A Social Network Analysis of Customer-Level Revenue Distribution

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In recent years, companies have increasingly started to rely on referral programs in their customer acquisition process. Previous research has shown that these programs are generally effective (i.e. referral rewards increase referral likelihood) and that the way in which rewards are structured influences the type of social relationships (strong vs. weak ties) activated in the referral process (Ryu and Feick 2007). Other studies have provided support that people linked by strong ties tend to be similar in terms of demographics and basic consumption characteristics (e.g. Reingen et al. 1984). Based on these findings I assume that customers who share strong social connections are likely to have similar revenue potential for the firm. Given an appropriate reward structure, high value customers should therefore be more likely to generate high value referrals than low value ones. This leads to the recommendation that companies should tie referral reward amounts to the revenue the referring customer currently brings to the firm. In order to test this hypothesis I rely on data provided by a European mobile phone operator. Using 3 months of call history information I reconstructed two social networks: a snowball sample consisting of 6,681 actors linked by 19,885 call relationships and a random sample of 19,668 actors linked by 25,799 call relationships. I then combined these social informations with revenue data and plan to apply approaches from spatial statistics to test a potential relationship in revenue among customers within the same social network.

■ FB05

Pavilion C

New Product Forecasting

Chair: Taesun Kim, Bass's Basement Research Institute, Austin, TX, taesun@bassbasement.org.

1 - Pre-Launch Forecasting of Sales and Product Evolution

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In this paper, we introduce a model that deals with the challenge of forecasting market acceptance and product (technology) evolution along the product lifecycle, pre-launch. Product adoption is motivated by attributes' improvements due to technology evolution, while firms' product improvement strategies are motivated by market growth and directed by market preferences. The interdependency between attributes' improvements and cumulative adoption level makes the problem inherently dynamic. To find the dependency of attributes levels on adoption levels, we conduct an industry and technology analysis; to relate market preferences and purchase intentions to attributes levels we use data collected by a conjoint

study. The ability to collect and interpret data about both demand and supply aspects, before the product is introduced, leads to a pre-launch forecasting. The evolution of the cumulative adoption level over time, as a result of the product evolution, and vice versa, is based on both customer purchase decision processes and firms' responses. We demonstrate the applicability of the model on the hybrid car and digital camera markets.

2 - Roadmapping 3G Mobile TV: Scenario Planning Through Repeated Cross Impact Handling

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In order to deal with growing uncertainties emerging in the 3G wireless industry and to preserve their competitiveness, managers involved in the wireless value network should identify future success very early and develop their strategic planning on time. Aim of this article is to frame a conjectural framework which makes full allowance for the dynamics and complexity of the various systems involved with the development of 3G mobile TV services and to generating quantitative results. This study is based on a scenario evaluation and analysis through repeated cross impact handling, and allows the generation of both qualitative and quantitative scenarios and can be used as an operative planning tool. The dynamic forces driving the scenarios are based on the main principles of system thinking and multiple features. The probabilistic data have been elicited with the help of 40 executives in USA and Europe working for companies in the different phases of the wireless value chain. We assume that a single event requiring forecasting can be impacted upon by other events. The experience of experts is gathered in the form of subjective probabilities, to determine the likelihood of the events and the impacts between pairs of events. Simulation and mathematical programming techniques are then used to find the scenario with the highest possible probability consistent with the estimates. Applying the SEARCH method we run our scenario project through the following four phases: 1. Detection of key factors 2. Foresight of alternative projections 3. Calculation and formulation of scenarios 4. Analysis, mapping and interpretation of scenarios. Findings allow to identify basic trends and uncertainties useful to develop corporate or business strategies.

3 - The Exploration of Systematic Change in Bass Model Parameters Using Hierarchical Bayes Modeling

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Using classical modeling approaches, several studies with varying degree of empirical support have documented the presence of systematic change in Bass Model parameters, m, q, and p. These studies base their conclusions on either pooled estimates that do not allow for innovation heterogeneity or random coefficients estimates that often depend on the type of assumed random structure. We find that the conclusions of prior studies are not warranted when modeling heterogeneous innovations. We find through classical and hierarchical Bayes (HB) estimations at disaggregate levels there is a substantial level of heterogeneity in the datasets used by the previous studies as well as in a larger dataset selected using the same criteria as those used in previous studies. Exploiting a linear HB model, we improve the estimation of the innovation-level parameters by utilizing cross-innovation similarities. We examine the nature of systematic change by quantifying the location and spread of the improved innovation-level parameter estimates. In both empirical datasets we investigated, we find the posterior standard errors are large enough to include 0 in the 95% probability intervals in the estimation of systematic change. Contrary to the claimed empirical regularities and associated statistical results, therefore, the parameter estimates of the Bass Model do not exhibit any form of systematic change that is consistent across innovations with respect to the number of observations and censoring.

■ FB06

Pavilion B

DVD and Entertainment Media Marketing

Chair: Pilsik Choi, Clark University, Graduate School of Management, 950 Main Street, Worcester, MA, 01610, United States of America, pchoi@clarku.edu

1 - Diffusion of Media Products

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Media products follow a different diffusion process than utilitarian goods. Whereas we find a substantial amount of diffusion research in the motion picture industry focusing on modeling diffusion pattern for blockbuster as well as for sleeper movies, we find only limited research for other media products such as books or music. Based on three large samples covering the German market for music, movies, and books for several years, we analyze (1) the diffusion of media products and (2) the drivers (such as star power, promotion etc.) of the product's diffusion over time. We show whether or not the diffusion models from the motion picture industry can be generalized to other media products. Our results indicate on the one hand substantial differences in the diffusion of media products but also on the other hand several similarities that may lead to empirical generalizations.

2 - The Impact of Advertising and Promotion on Customer Spending in the Media Download Industry

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Global digital media sales have increased dramatically over the last three years and the media download industry is expected to continue to grow strongly. Besides an extremely competitive environment the market is characterized by high switching costs due to incompatible music formats and digital rights management restrictions. These costs prevent customers from changing providers. Thus, media download firms focus on increasing share of wallet of existing customers and acquiring new customers, i.e., that are not locked in by a competitor. They spend heavily on marketing activities in a variety of media to prevail against competitors and piracy. We focus our study on existing customers and investigate the effectiveness of various marketing instruments. We analyze how customers purchasing online media respond to different marketing activities and whether customer spending on downloadable media can be increased by targeted advertising and promotions. Our data contain weekly information on individual customer spending and marketing actions such as TV, radio, print and internet advertising, coupon usage and promotions from a major media download company. So far, to our best knowledge, there has been little academic research related to the impact of marketing instruments on customer spending in the media download industry. Based on traditional Vector Autoregression (VAR) analysis we find that the short- and long-term effects of marketing activities vary significantly across customer segments. Taking this into account, we formulate a panel data VAR model to investigate purchasing behavior. This allows us to combine accounting for endogeneity (with a traditional VAR) and modelling unobserved individual heterogeneity (through the panel data approach) in a parsimonious framework.

3 - Competition Between a Multichannel Retailer and an Online Retailer in the DVD Rental Market

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This paper investigates how using different channels affects competition between two retailers in terms of their optimal prices, market shares, and profits. Since Netflix started renting DVDs through its Web site, it has gained a significant market share from Blockbuster and other competitors. Reacting to this threat, Blockbuster launched its own version of online rental business. Over the last few years, the competition between Netflix and Blockbuster has intensified substantially. This paper uses a game-theoretic approach to analyze competition between two DVD-renting firms in the market. There are two cases in this paper: 1) Firm 1 renting DVDs through stores (e.g., old Blockbuster) vs. Firm 2 renting DVDs online (e.g., Netflix) and 2) Firm 1 renting DVDs through stores and online (e.g., current Blockbuster) vs. Firm 2 renting DVDs online (e.g., Netflix). These two cases were analyzed with the number of DVD rentals per month as a source of consumer heterogeneity. The analyses show that the market shares and profits of the two firms are functions of the following factors: transaction costs that consumers incur, distribution costs of the firms, DVD title variety, rental fee, and overall utility of DVDs rented. The paper also draws managerial implications for firms in the DVD rental business. One of the contributions of this paper is that it addresses multichannel retailing by suggesting benefits and risks of multichannel retailing, compared to click-only retailing. Thus, this paper contributes to enhancing overall understanding of multichannel retailing as well as the DVD rental business.

■ FB07

Pavilion A

Choice-Marketing Mix Response

Chair: Sri Devi Duvvuri, Assistant Professor, University of Iowa, S348 PBB, Iowa City, IA, 52242, United States of America, sri-duvvuri@uiowa.edu

1 - Do Retailer Return Policies Really Matter on Consumer Choice
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Store retailing today makes extensive use of post-purchase guarantees in the form of return policies. The option to return a purchased product for a certain time after its purchase reduces the consumers' pre-purchase uncertainty of price and fit. Product warranties that are common in consumer durables provide a guarantee for durability and performance, but they do not resolve the consumer's price and fit uncertainty. The option to return the product to the retailer, if the customer finds a similar product at a lower price or if the item purchased is not a good fit for its intended use, can be perceived by the consumers as additional value provided by the retailer. Early studies on return options and consumer premiums attached to post purchase guarantees (Heal 1977,Che 1996, Goldeen 2003) prompted most large retailers to start offering a lenient return policy to their customers. With time it became an industry wide practice due to competitive pressure even if retailers were not convinced that it increases purchase probability, although returned products cost a fortune both to retailers and manufacturers (approximately $35 Billion annually in the US). To date, very little evidence is available to indicate whether and how consumers value the duration of the retailer's return policy. We run a conjoint experiment in a large Spanish city for two consumer electronic products to estimate the consumers' valuation of a return policy changes (duration and conditions) on respondent's choice. A large number of control variables were included, i.e. product price and search cost.

2 - Incorporating Consumer Inventory into Demand for Storable Goods
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We propose a model for consumer demand in the categories where product offerings are tied-goods. The model is a variant on the linear expenditure system. The main questions to address are: what is the impact of the sales of introductory item on the stream of the tied goods sales in the future and how the purchase of offerings are influenced by the inventory accumulated from the past purchases. We attempt to capture these aspects of consumer behavior in both discrete and continuous demand. The model is applied against a panel data where the utility is defined over base units and attachments, and positive inventory quantity is incorporated to derive utility about of the system/collection of goods. The data is from a product category that consists of two items - brush handles and refills. We estimate the model parameters at the individual level via MCMC in hierarchical Bayesian framework. Other statistical models for the purchases were also fit for comparison purpose.

3 - Latent Shopping Orientation Dynamic, Shopping Path, and In-store Purchase Conversion
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Shopping orientations, namely, recreational shoppers and purchase-oriented shoppers have been primary dimensions for segmenting consumers. However, this research proposes that for an individual shopper, shopping orientations are dynamic through the in-store shopping experience rather than static. The environmental design characteristics (store layout and navigational aids), marketing intervention (salespeople contact and in-store events) and contextual factors (crowding and time pressure) causing orientations transitions are identified. Utilizing video tracking data collected from an apparel specialty store, we model consumers' shopping path at zone movement level and purchase decision using a two-stage Probit model implemented in a hierarchical Bayes framework. In the mean time, the latent orientation dynamic is captured by a Hidden Markov process. We hypothesize that attractive store layout, navigational aids, salespeople contact and in-store events induce transitions from recreational shopping to purchase-oriented shopping, whereas retail crowding and time pressure engender shift from purchase-oriented shopping to recreational shopping. In addition, it is predicted that environmental design characteristics have greater impact on shopping path than on purchase decision; marketing interventions exert more influence on purchase decision than on movement; while contextual factors have comparable effect on shopping path and purchase decision. Retailers can utilize the proposed model to dynamically improve their in-store conversion rate.

4 - When Quantity Matters: A Multivariate Tobit Model
Sri Devi Duvvuri, Assistant Professor, University of Iowa, S348 PBB, Iowa City, IA, 52242, United States of America, sri-duvvuri@uiowa.edu

Is consumer response behavior to marketing stimuli such as prices and promotions different for what they buy and how much they buy? Further, how is this behavior affected when the purchase occasion includes several categories? To address this very interesting issue, we propose a multivariate tobit model that simultaneously accounts for purchase incidence and quantity decisions of consumers across multiple categories. Integrating quantity decisions into the choice or incidence framework is essential to overcome the selectivity bias and infer consumer behavior more accurately. Our model specification extends the existing literature very nicely. To understand consumer purchase behavior across multiple categories in this context even further, we extend our analysis to study the covariation in response sensitivities (both preference and marketing mix) for both the incidence and quantity decisions. We estimate a Hierarchical Bayes econometric specification of this complex model using MCMC methods. Scanner panel data across several categories are used for model calibration. Results indicate that including the quantity decision not only improves the fit of the model but also sheds interesting light on purchasing behavior across categories. Managerial implications are also discussed.

■ FB08

Port Hardy

Influences on the Consumer Choice Process

Chair: Xin Ge, School of Business, University of Northern British Columbia, Prince George, BC, V2N4Z9, Canada, gex@unbc.ca

1 - When Choice is Motivating: Increasing Options During Product Configuration Makes You a Maximizer
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Consumers often make sequential product attribute configuration decisions when they purchase shoes, computers or automobiles. How does the order of configuration decisions affect consumers' search goals and satisfaction? We found that people spent more effort searching through attribute options when they encountered a sequence of decisions in which the number of options increased from attribute to attribute. Self-reported degree of goal maximization mediated the effect of decision sequence on depth of search. Finally, the temporarily triggered maximizing (vs. satisficing) mindset has similar short- and long-term effects on satisfaction as chronic maximizing mindset examined in previous research. In Experiment 1, participants configured a 10-song CD, which they could take home 2 weeks after the study. The 10 songs were chosen from 10 non-overlapping music collections. In the increasing-sequence condition, the number of song options increased from one music collection to the next (5, 10, 15,... , 50), and vice versa in the decreasing-sequence condition. Participants in the increasing-sequence condition engaged in a deeper search effort and sampled about 50% more songs. In Experiment 2, we show that the degree of self-reported maximizing tendencies mediates the effect of the sequence on search effort. In Experiment 3, we measured participants' satisfaction with their choices immediately and again two weeks after the experiment (using whether they claimed their CD as a satisfaction measure). We find that participants in the increasing-sequence condition, who exhibited stronger maximizing tendencies, were more satisfied immediately, but less likely to claim their CD gift two weeks later, reflecting lower long-term satisfaction.

2 - How Multiple Anchors Affect Judgment: Evidence From the Lab and eBay
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People's estimates of uncertain quantities are systematically influenced by anchors in the environment. However, it is not clear how people make inferences when they encounter multiple anchors. We demonstrate that people's judgments are not influenced by a simple averaging of the effects of the individual anchors; rather, plausible anchors take more weight than

implausible anchors. In a controlled experiment, we found that people's estimates were lower when an implausible, low anchor was provided than when a plausible, medium anchor was provided. However, the reverse was true when a second plausible, high anchor was paired with the first anchor: people's estimates were higher when the high anchor was paired with an implausible, low anchor than when it was paired with a plausible, medium anchor. We corroborate these findings in a more complex decision - bidding in Buy-It-Now (BIN) auctions on eBay. On the US eBay website, the BIN price disappears once a bidder bids above the starting price; on the Chinese eBay website, however, the BIN price remains observable throughout the auction. This suggests that Chinese bidders use both BIN price and starting price as anchors in determining their valuations of products, but that US bidders can only use starting price, thus creating the natural experiment analog to the controlled experiment. Archival eBay data show that in Chinese BIN auctions, higher final prices resulted when starting prices were extremely low than when they were intermediate, even after controlling for number of bidders. In US BIN auctions, however, final prices were monotonically related to starting prices (controlling for the number of bidders).

3 - More Comparison and a Smarter Choice? Not Necessarily

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Research shows that when consumers compare between two options based on their specific attributes, they pay more attention to one of the options (the "focal" option) than the other one (the "referent"). They map attributes of the focal option onto the attributes of the referent, and weight the unique attributes of the focal option more heavily than those of the referent. Hence, they prefer the focal option more (less) when the unique attributes are favorable (unfavorable). This is referred to as the "direction-of-comparison" effect. This effect has only been demonstrated in experiments in which two alternatives were considered, and has not been generalized to a more realistic, multiple-option comparison context. Research has shown that this comparison process requires one to store the specific attributes of the available options in memory, such that they can later serve as a basis for an attribute-based comparison. However, when the number of alternatives increases, it becomes harder to store attribute information in memory, and the mapping between specific attributes becomes less likely. If so, the direction-of-comparison effect may disappear. We, however, showed that this was not the case. We conducted experiments which required participants to compare 2, 3, and 4 alternatives, respectively, and showed that the direction-of-comparison effect not only sustained, but also became more and more apparent as the number of option increases from 2 to 4. We offered an explanation and tested the underlying mechanism in this research.

4 - Differential Search Costs and Consumer Choice

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A common belief is that a firm should make it as easy as possible for consumers to obtain information about its products or services. We challenge this view and argue that a firm may be able to boost demand for its offering by increasing consumer search cost in connection with it. We propose two psychological mechanisms as drivers of this effect ®C one in line with a sunk cost fallacy, whereby incurring a higher search cost increases consumers' commitment to an offering, and one based on self-perception theory, whereby consumers make inferences about their preferences by observing their own search behavior. The findings of four experiments show that making it more difficult for consumers to find out about an alternative, relative to competing offerings, can indeed increase the probability of that alternative being chosen. Moreover, the results provide support for both proposed mechanisms, suggesting that they jointly underlie the influence of differential search costs on consumer choice.

■ FB09

Junior B

Customer Lifetime Value and Wallet Share

Chair: Eva Ascarza, PhD Candidate, London Business School, PhD Programme, Regent's Park, London, Lo, NW1 4SA, United Kingdom, eascarza.phd2004@london.edu

1 - Share of Wallet: Considering Interdependency of Categories

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This paper studies an approach to better measure share of wallet, which considers interdependency of categories, as budget competitors, at a focal firm and competitors. As consumers show polygamous brand loyalty at category level, it is necessary to investigate the effects of other categories within/across firms on a category in interest. Using credit card usage information on purchase and cash advance categories at a focal firm and competitors, we set up a simultaneous equation model with censored data and observe asymmetric effects that expenditure at a certain category strongly stimulates other expenditure even at competitors while other expenditure does not. It is also shown that substitution effects at the same category across firms are very weak. Remarkably, asymmetric effects vary by customers' loyalty level. Our results imply that we need to consider interdependency between categories and customer loyalty level when we estimate expenditure at competitors in order to accurately calculate share of wallet.

2 - Wallet Estimation Models: A Bottom Up Approach

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The wallet associated with a product or service category for a given company and time frame, is defined as the company's total requirement for that category and time frame from all suppliers. The total wallet is defined as the sum of all pertinent product/service categories. We model the total wallet and wallet share of business customers of Cisco. The results are used to produce total addressable market summaries at various levels and as core information to support several marketing and sales efforts. The model assumes that companies with similar firmographics (such as geography, industry, and size) should have similar business needs, and that the top-spending customers with each set of firmographics spend a large share of their wallet with Cisco. Market partition by firmographics, as well as the more flexible quantile regression, are used. An innovation of our methodology is that we take into account the purchase cycle, that is, the fact that most companies wouldn't buy new technology every year. In addition, we provide a forecast of wallet going forward using time series methods. Finally, we compare the bottom-up model with a top-down model based on global market estimates and with survey results, and discuss the different view that each model provides.

3 - Predicting Customer Wallet

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Each consumer requires a certain quantity of services or products, and a single company usually provides only a part of it. In the banking sector, the total quantity of business a customer makes is called the Size-of-Wallet (SioW) of this customer and is generally unobservable. From a company perspective, the percentage of this business made with the company is called the Share-of-Wallet (ShoW) of this customer and is usually unobservable as well. This paper also focuses on the derived concept of Potential-of-Wallet (PoW), which is the difference between the Size-of-Wallet and the actual business the customer makes with the focal company. At our knowledge, no method has been proposed in the literature yet to predict these quantities without using survey data where the customers give an estimate of their own ShoW. The implementation of a survey, however, is very expensive and the research objective of this paper is to propose an approach to predict the Size and Share-of-Wallet of the customers (and therefore the PoW) without using survey data. Our method only requires information easily obtainable from a company perspective: some RFM (recency, frequency and monetary) variables and some sociodemographics variables, such as the age and the address of a customer. In the empirical application section, we apply our model to the savings of customers of a major Belgian retail banker. This retail banker provided all the required information for the construction of the model and its assessment. In this case, the model then predicts the quantity of savings that a customer makes (defined as the amount on savings account), and the proportion of these savings that are made outside the focal company.

4 - Modeling Renewal and Usage Behavior in Contractual Settings

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Many organizations are interested in predicting the expected future value of their customer bases. While most work in the contractual setting has been focused on modeling retention (generally using past usage as predictor), the literature has been silent about how to forecast customers' usage (and therefore future revenue) in contractual situations. We propose a new model that jointly predicts renewal and usage behavior. The model is built on the assumption that both behaviors are driven by the same

underlying process. Using a Hierarchical Bayes approach, the model is able to identify a dynamic latent trait (at the individual level) that allows us to make accurate predictions in both processes. Besides its methodological contribution, this study has implications for churn prevention, customer lifetime value (CLV) computation, and managing stock decisions.

■ FB10

Junior A

Strategic Alliances

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1 - Innovation Alliance Strategies: Alignment of Resource Access and Interfirm Governance

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In today's dynamic and knowledge-rich environment, the ability and willingness to use external resources are believed to be essential parts of firms' entrepreneurship, allowing them to pursue growth beyond the limits set by the resources they currently control. Yet practitioners and researchers disagree on what are the best strategies in forming alliances for technology or product innovations. This study investigates 1) innovation alliance strategies emerging from the alignments of resource access and interfirm governance characteristics; and 2) the implications of alternative strategies for the values of partner firms. By applying canonical correlation analysis and the subsequent cluster analysis to the 472 alliance agreement s formed in the biotechnology and pharmaceutical industries, we found four alternative alliance strategies: i) extensive collaboration, ii) marketing outsourcing/contract marketing, iii) contract R&D/R&D outsourcing, and iv) integrative research collaboration. Further analysis of the four strategies shows that the first strategy (i.e., extensive collaboration), characterized by resource integration throughout a wide scope of the innovation process, are more likely to be used by firms centrally positioned for various roles in the existing alliance network along with hierarchical structure. In contrast, the other three strategies, characterized by resource access narrowly focused on a specific stage of innovation process, were used between partners centrally positioned only for a specific role in the existing alliance network. We further examine the consequence of each alliance strategy for firm value in the stock market through event analysis. Finally, we discuss managerial implications of alternative collaboration strategies.

2 - Transforming Social Capital into Financial Value in IPOs: The Role of Absorptive Capacity

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Initial Public Offering (IPO) is one of the most intriguing topics in finance and accounting. Though marketing strategies may play an important role in firms' IPO performance, marketing researchers have yet to pay much attention to this area. Recently, the marketing literature has begun to demonstrate that alliance relationships may influence firm performance, but most extant research is confined to mature firms. The sociology literature argues that social capital can contribute to financial capital, but little empirical evidence is provided. Against this backdrop, this study draws on marketing, sociology, and finance literatures to investigate how social capital embedded in alliance relationships can be transformed young technology firms' IPO value. Drawing from the marketing literature, we classify alliance into two types, namely value creation alliances and value appropriation alliances. We then hypothesize that the relevant absorptive capacity plays a key role in exploring and transforming social capital in each alliance type into financial performance. Using secondary data of IPO companies in the biotechnology industry from 1996 to 2006, we employ the Heckman two-stage method to control the self-selection bias of the firms' alliance joining decisions. Significant moderating effects of absorptive capacities are observed. The results thus provide quantitative evidence regarding the value of social capital and the conditions under which it can be best realized into financial value through appropriate marketing strategies.

3 - Driving Profits Through Supply Chain Alliances

Ursula Sullivan, Assistant Professor, University of Illinois, Urbana-Champaign, 350 Wohlers Hall, MC 706, 1206 S. Sixth Street, Champaign, IL, 61820, United States of America, uyas@uiuc.edu

In this paper, we investigate supply chain alliances from the perspective of the customer. As companies continue to "partner" and effectively shut-out competition, it is imperative to know that the alliance is driving value for the firm. As a consequence, both the management of the transactions between the supplier and its customers as well as management of the relationship between the two parties are analyzed to understand how supply chain alliances can lead to higher levels of profits for customers. The data are from customers (hospitals) of a major food service supplier. Performance variables such as costs, as well as demographics of the customers, are included in the analysis. We marry these results with attitudinal responses from the customers to ascertain an overall "relationship quotient." Preliminary findings suggest that benefits, such as access to new business ideas, capacity utilization, and lower operating costs are compelling motivations to foster the relationship. On the other hand, certain environmental constraints may affect the partners' desire to continue the alliance. Results also indicate that relational mechanisms can be employed to achieve alliance success. In particular, these mechanisms need to be used to moderate the relative level of dependency between the partners. Empirical findings from the analysis indicate that a certain level of dependence is required to achieve a successful alliance; however, too much dependency can negatively affect alliance satisfaction.

■ FB11

Port McNeill

eCommerce-The Long Tail Effect

Chair: Anita Elberse, Assistant Professor, Harvard Business School, Soldiers Field, Boston, 02163, United States of America, aelberse@hbs.edu

1 - Blockbuster Culture's Next Rise or Fall: The Impact of Recommender Systems on Sales Diversity

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This paper examines the effect of recommender systems on the diversity of sales. Two anecdotal views exist about such effects. Some believe recommenders help consumers discover new products and thus increase sales diversity. Others believe recommenders only reinforce the popularity of already popular products. This paper is a first attempt to reconcile these seemingly incompatible views. We explore the question in two ways. First, modeling recommender systems analytically allows us to explore their path dependent effects. Second, we increase the realism of our results by combining simulated choice models with actual implementations of recommender systems. We show how recommenders affect diversity and the corresponding implications for welfare.

2 - Long Tail - An Investigation of Underlying Demand Effects

Jochen Eckert, University of Frankfurt, Department of Marketing, Faculty of Business and Economics, Mertonstrasse 17, Frankfurt, 60054, Germany, jeckert@wiwi.uni-frankfurt.de, Bernd Skiera, Oliver Hinz

The Internet and related technologies vastly expand the variety of products that can be profitably promoted and sold by online retailers. Furthermore, search and recommendation tools reduce consumers' search costs. As a consequence, demand should shift away from a small number of blockbusters to a huge number of niches, which creates a longer tail in the distribution of sales. Anderson called this effect "The Long Tail". Literature shows that lower consumers' search costs decrease sales concentration and that demand shifts away to a small number of niches. Yet, little is known about the underlying demand effects in detail. Therefore, the aim of this paper is to investigate empirically the existence of the long tail and to show if it is primary based on substitution or additional demand. We further contribute to the existing literature by determining the influence of an increasing assortment size and decreasing consumer search costs (due to different versions of the search technology) on demand and therefore on the long tail. We use data of the market leader of the Video-on-Demand (VoD)-market in Germany that covers more than a million sales by all of their customers on an individual consumer level over a period of 30 month (January 2005 until August 2007). Our preliminary results reveal that blockbuster products are partly substituted by newly offered niche products but we also find evidence for an absolute increase in total demand. We find that the effect on sales per customer caused by an increase in assortment size is diminishing, whereas the adoption of new search technology significantly increases sales per customer.

3 - The Impact of (Legal) Digital Distribution on Music Sales: Who Benefits?

Anita Elberse, Assistant Professor, Harvard Business School, Soldiers Field, Boston, 02163, United States of America, aelberse@hbs.edu

In the music industry, digital distribution is quickly overtaking physical distribution as the dominant channel through which recordings are sold. Some expect this shift to digital channels to lower barriers to entry and benefit smaller, independent labels with more obscure offerings, while others contend it may predominantly help to strengthen market shares of the already popular offerings provided by major labels with sufficient scale to fund a blockbuster strategy. By analyzing recorded music sales data for over 3,000 randomly selected artists I study whether the rise of digital distribution channels affects the sales of artists belonging to different label types. For this sample, the share of units sold in a digital format jumps from roughly one third in the first quarter in 2005 to two thirds of all units in the first quarter in 2007, with the majority coming from individual tracks rather than albums. I find that most of the "action" is at both ends of the sales distribution: while digital channels help the most obscure independent-label artists to gain market share, such channels also appear to facilitate a further strengthening of the position of superstar artists belonging to the major labels. I discuss managerial implications.

■ FB12

Parksville

Pricing

Chair: Jorge Silva-Risso, Associate Professor, University of California, Riverside, 900 University Ave., Anderson Hall 201, Riverside, CA, 92521, United States of America, jorge.silva-risso@ucr.edu

1 - Pay-What-You-Want: Being Better Off When Customers Determine the Price?!

Ju-Young Kim, University of Frankfurt, Mertonstr. 17, P.O. Box 80, Frankfurt Am Main, 60054, Germany, jukim@wiwi.uni-frankfurt.de, Martin Natter, Martin Spann

Pay-What-You-Want (PWYW) is a new participative pricing mechanism that delegates the whole price determination to the buyer. The seller simply offers one or more products at PWYW conditions, whereas the buyer decides about the price. After the buyer has set the price, the transaction automatically proceeds. Recently PWYW draws more and more attention from both marketing practitioners and researchers since the number of successful applications increases continuously. For instance Radiohead, a British rock band, caused quite a stir when they offered their fans to download their new album from their website and to pay for it as much as they want to, even zero. According to the lead singer, Radiohead had profited from the PWYW format. But how does the mechanism become profitable to the seller? And what kind of products work with the mechanism? Using data from an online survey, we first examine the various design possibilities the seller has to influence the final price paid. Secondly, we integrate consumer behavior in a dynamic model in order to optimize the seller's profits. We conduct three field studies to test our proposed analytical model. The results of our analyses enable us to derive useful implications for potential applicants of PWYW.

2 - Lease Versus Buy: The Rational Choice

Srabana Dasgupta, Assistant Professor, University of British Columbia, 2053 Main Mall, Vancouver, BC, V6E 4N2, Canada, dasgupta@sauder.ubc.ca, Prokriti Mukherji

Automobile leases typically allow a consumer to operate a vehicle in return for a monthly payment. These monthly payments are designed to account for the depreciation of the vehicle over the lease period. According to the popular press, one of the main reasons why leases are so popular is because a lease does not require a consumer to pay the full value of the vehicle, and the monthly payments are much lower than if the same vehicle was purchased. While the lower monthly payments may make leasing cheaper in the short run, according to many industry analysts, most consumers fail to account for various other costs, such as the cost of leasing a new car after the initial lease expires. However, these analyses fail to consider the benefit that the consumer derives from the call option value of the lease. The purpose of our research, therefore, is to examine whether consumers are rational when deciding between leasing and purchasing. We propose that allowing for an approach that accounts for the call option value will establish that consumers make rational decisions. We use a dataset of individual-level transactions to build a model of the lease versus purchase decisions which takes into account the costs and benefits of each contract, thus allowing us to directly test our hypothesis.

3 - Pricing of Flexible Products in Service Industries: An Empirical Analysis at a Low-Cost Airline

Martin Spann, University of Passau, Innstr. 27, Passau, BY, 94032, Germany, martin.spann@uni-passau.de, Stefan Mang, David Post

The pricing of flexible products is a new price discrimination practice, which can enable firms to increase revenues. Flexible products are defined as a set of at least two alternatives, where consumers will be assigned to one of the alternatives at a later date (e.g. a flexible product can be a flight from Los Angeles to New York in a specific month without fixing the specific flight dates at the time of the purchase; the consumer will be assigned to a specific flight only after the purchase). Flexible products allow consumers to self-select according to their flexibility, thus enabling price discrimination for the seller. The application of flexible products is not limited to airlines but appears applicable in other industries selling capacity-constrained services equally well. Previous research on flexible products is sparse and based on analytic models, but does not empirically analyze the acceptance of flexible products and their effects on revenue and profit. In our study, we empirically analyze the acceptance, search and purchase behavior of flexible products based on data of a flexible product offering at a low cost airline with over 74,000 inquiries from over 26,000 different consumers. We find that there is a segment of consumers willing to fly with some level of uncertainty in their itinerary, which can be addressed by such a flexible product offering. Furthermore we observe differences in search behavior between purchasers and non-purchasers. Additionally, we estimate a profit increase from flexible tickets for the airline we study. Thus, we conclude that the application of flexible products is a promising new approach for price discrimination.

4 - Scarcity Rents in Car Retailing: Evidence From Inventory Fluctuations at Dealerships

Jorge Silva-Risso, Associate Professor, University of California, Riverside, 900 University Ave., Anderson Hall 201, Riverside, CA, 92521, United States of America, jorge.silva-risso@ucr.edu, Florian Zettelmeyer, Fiona Scott Morton

The effect of supply and demand shocks has not been successfully documented empirically because it is necessary to have very fine information on some feature of supply or demand as well as the transaction price associated with that moment, or state. Our focus in this paper is the market for new cars, where price differences are commonly assumed to arise because dealers with market power are able to price discriminate among their customers. We analyze a dataset of new car transactions that includes dealer-level inventories as well as individual negotiated prices; we are therefore able to show how the dealer's inventory of the car in question in the days prior to the transaction affects the price paid by the consumer for an identical car at the same dealership. We show that inventory fluctuations create scarcity rents for cars that are in short supply. The price variation due to inventory fluctuations thus functions to efficiently allocate particular cars that are in restricted supply to those customers who value them most highly. Our empirical results show that a dealership moving from a situation of inventory shortage to an average inventory level lowers transaction prices by about 1% ceteris paribus, corresponding to 15% of dealers' average per vehicle profit margin or $250 on the average car. Shorter resupply times also decrease transaction prices for cars in high demand. We compare the magnitude of price fluctuation caused by inventory to the overall variation in price across consumers. For traditional dealerships, inventory explains 49% of the combined inventory and demographic components of the predicted price. For so- called "no-haggle" dealerships, the percentage explained by inventory increases to 74%.

■ FB13

Orca

Factors Influencing Brand Equity and Image

Chair: Qiang Fei, PhD Student, University of Iowa, 108 PBB S219, Iowa City, IA, 52241, United States of America, qiang-fei@uiowa.edu

1 - Relationship-based Brand: A New Perspective in Service Branding

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In the service and knowledge economies, previously efficient forms of competitive advantage no longer have a share in company stratagies. Today, employees are the last source of sustainable competitive advantage. In service organizations, employee behavior affects the success of a company's brand. In the competitive environment of service organizations offering similar core services, brands have a crucial role in the outlining of organizations. Service brands depend on carefully nurtured and sustained relationships between employees and customers. In this paper, we intend to focus on the relationship-based brand, one that is based on the interactions of employees and customers. Finally, we offer a model of antecedent that influences the relationship-based brand.

2 - Assessing the Effects of Product-Based VCs on Brand Selection: A Longitudinal Study

Yiyan Li, Assistant Professor, City University of Hong Kong, Department of Marketing, Hong Kong, Hong Kong - ROC, liyiyan@cityu.edu.hk, Kineta Hung

Various studies prove that brand-based virtual communities (VCs) strengthen participants' brand loyalty. What remains unclear is the impacts of an alternative but just as important form of VCs ®C the product-based VCs on consumers' brand selection and how those impacts evolve over time. By conducting a longitudinal study of 277 members from a product-based VC, this article provides three important contributions. We propose and test a structural model that exams both the temporal and dynamic impacts of on consumers' brand selections from informational, social, and normative perspectives. In addition, we also investigate the moderating effect of consumers' frequency of visit to the VC. Results of the interviews and two rounds of surveys (10 months in between) demonstrate that individual motives (informational and social) to participate in a VC and susceptibility to VC normative influence in a product-based VC not only enhance consumers' knowledge and loyalty toward their previously favorite brand but also increase variety-seeking intentions and consideration set size in brand selection. Information motives play dominant and increasing roles in enhancing variety-seeking intentions and consideration set size over time, whereas the effects of social motives and individual susceptibility to VC normative influence decrease in the long term. The results also indicate that the influence of product-based VCs on consumers' brand selection does differ significantly for consumers visit the VC frequently and less frequently.

3 - How Competition and Environment Alter Brand Architecture: An Analysis of Brand-Usage Interactions

Kim Serota, Lecturer in Marketing, Oakland University, School of Business Administration, Dept. of Management and Marketing, Rochester, MI, 48309, United States of America, serota@oakland.edu, Mukesh Bhargava

This paper uses the intersection of brand and usage situations to define brand architecture from a consumer perspective. Network analysis of consumer behavior is applied to identify market structure-in-use, quantify structural relationships among brands, and observe change due to market influences. Using Srivastava's theoretical foundation for understanding market structure from a customer perspective, the network approach focuses on brands within category and interactions with brand usage to guide brand architecture/portfolio strategies. Brand-usage situations indicate the purposes for which brands are chosen. Four key usage patterns are: single brand for a single usage situation, single brand for multiple usage situations, multiple brands for a single usage situation, and multiple brands for multiple usage situations (primarily complementary use where consumers choose Brand A for Purpose X and Brand B for Purpose Y though mixed usage patterns also occur). In the network structure, brand-usage situations are nodes; patterns arise from the frequency of dyadic links between nodes. Three analyses are conducted: (1) 2004 and 1994 brand-usage structures for the U.S. car rental industry are compared by looking at patterns among prevailing 1994 brands prior to and after emergence of Enterprise as the category leader. (2) Brand-usage patterns in 2006 and 2004 for (mostly Native American) casinos in Minnesota, Manitoba, and the eastern Dakotas are compared. Usage is, in part, defined by proximity to the consumer's home and rising gas prices are examined as an environmental influence on brand-usage. (3) For the subset of Manitoba gamers, changes in brand-usage patterns are also examined as the result of the opening of a third casino in the Winnipeg market.

4 - Brand Equity and Product Recalls

Qiang Fei, PhD Student, University of Iowa, 108 PBB S219, Iowa City, IA, 52241, United States of America, qiang-fei@uiowa.edu, Lopo Rego

Product recalls can be costly events for businesses and can be a source of significant shareholder value destruction. The financial literature has studied this topic extensively with findings indicating that product recalls are associated with significant short term negative abnormal returns on a firm's stock. Existing research has also indicated that there are several conditions that moderate the magnitude of these abnormal returns. Despite the significant impact that product recalls can have over shareholder value, marketing researchers has only studied this phenomenon tangentially. Nonetheless, marketing is clearly an important constituent to this topic, given the mediation role that marketing actions can exert on the magnitude of these abnormal returns. For instance, advertising intensity, brand awareness, perceived quality and customer satisfaction have all been identified as marketing outcomes that can insulate a firm's products from both competitors and environmental changes, namely product recalls. Understanding how marketing actions can alleviate the negative abnormal returns associated with product recalls, is clearly a relevant and timely topic, particularly given the acceleration of product recalls experienced over the last several years.

■ FB14

Finback

New Media Advertising

Chair: Peter Danaher, Professor, Melbourne Business School, 200 Leicester St, Carlton, Melbourne, VI, 3053, Australia, p.danaher@mbs.edu

1 - Competing 'Creatively' in Online Markets: Evidence From Sponsored Search

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Although the efficiency-enhancing features of online markets have been well studied, much less is known about firms' differentiation strategies in these competitive markets, or the outcomes of such differentiation. This study examines competition among firms in online sponsored search markets - one of the fastest growing and most competitive of online markets. Given the nascence of online sponsored search and the lack of sophisticated differentiation strategies, firms have primarily sought to be listed on top of the search results, leading to intense competition. In this paper we develop and test a model that predicts the clickthrough rate (CTR) of a seller's listing in a sponsored search setting. Drawing upon consumer search theory and competitive positioning strategies we theorize that the CTR is jointly driven by the seller's positioning strategy as reflected by the unique selling proposition (USP) in its "ad-creative," by its rank in the sponsored search listing, and the nature of competition around the focal seller's listing. We use data from a field experiment conducted by leading firm in the mortgage industry where the firm varied its rank and USP dynamically. Results suggest that sponsored search listings can act as an effective customer segmentation mechanism, consistent with a model of consumer search in directional markets. We further find that the effect of the firm's positioning strategy and its rank in the listing on CTR is strongly moderated by its ability to differentiate itself from adjacent rivals. We discuss the implications of our findings for sellers' strategies in sponsored search markets and for extending understanding of consumer search behavior in directional markets.

2 - Factors Influencing Consumer Acceptance of Mobile Marketing: A Two Country Study

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Increasingly, brand marketers view mobile devices as an attractive platform for interacting with consumers through various forms of marketing communications, including location-based promotions and television-style advertising. Recent coverage in the popular press on the launch of Apple's iPhone has focused consumer and industry attention towards the use of mobile devices for marketing communications. The increased use of text messaging, location-aware search technologies, and the development of mobile marketing platforms and applications have begun to create fundamental changes in the ways brands and consumers interact. Yet, it remains unclear to what extent consumers will accept and engage in mobile marketing efforts and how this might vary across different global markets. The purpose of this study is to examine factors affecting consumers' acceptance of mobile marketing across global markets. Drawing upon technology acceptance and uses and gratifications theories, we develop and estimate a conceptual model of the influences of antecedent factors on behavioral intent related to mobile marketing acceptance. These factors include such constructs as privacy concerns related to the mobile platform and personal

attachment to mobile devices. We further propose that the above relationships are mediated by activities that consumers engage in such as downloading, forwarding content and registering with firms. Focusing on youth consumers, we empirically test the model using data collected in both an established (U.S.) and an emerging market (Pakistan). Findings across these two markets reflect cross-market similarities and differences related to consumer acceptance factors. We draw implications from these findings related to both theory and practice.

3 - Optimal Internet Media Scheduling

Peter Danaher, Professor, Melbourne Business School, 200 Leicester St, Carlton, Melbourne, VI, 3053, Australia, p.danaher@mbs.edu, Laoucine Kerbache, Janghyuk Lee

In this study we develop a method for optimal online media scheduling, for which there are no existing methods for the Internet. Rather than simply adapting previous methods used in traditional media, we show that the Internet poses some unique challenges that require an exposure distribution model tailored to multiple websites. Furthermore, online banner ads and other forms of online advertising are sold by methods that differ substantially from the way other media advertising is sold. We use a nonlinear optimization algorithm to solve the optimization problem and derive the optimum online media schedule. Data from an online audience measurement firm and an advertising agency are used to demonstrate the speed and accuracy of our method. We also validate our method by using a future time period to see how well our optimal schedules perform at a time period in the future. We find that our method is very accurate and substantially quicker than using complete enumeration. In addition, our method produces optimal online media schedules that are robust in terms of being either the same or close to optimal schedules obtained in a future time period, even though our schedules are derived at a time point three months earlier.

■ FB15

Granville

Market Orientation, Customer Loyalty, and Competition

Chair: Yunchuan Liu, Assistant Professor, College of Business, University of Illinois at Urbana Champaign, 415 Wohlers Hall, 1206 South Sixth Street, Champaign, IL, 61820, United States of America, liuf@uiuc.edu

1 - A Case Study of Neuro-Fuzzy Model Applied to Buyer's Response Prediction for a Plastic Technique R&D

Yu-Chih Bau, Department of Marketing, National ChungHsing University, No.250, Kuo-Kwang Road, Taichung, TW, Taiwan - ROC, lynnpaoo@hotmail.com, Shihyu Chou, Chin-Shien Lin, Ya-Wen Lee

In recent years companies in various industries tended to outsource part of their R&D services to a professional third party to save their costs and speed up new product development. In light of customer retention, a customer's response to the R&D service has great impact on the possibility of reusing the service from the same service provider. Realizing how customers respond has become a critical issue for a R&D service provider, such as PIDC (Plastic Industry Development Center). Besides, if PIDC knows its individual customer's loyalty tendency and propensity to switch to other providers, it can implement adequate customer relationships management policy with limited marketing resources. In this study, to avoid the limitations of traditional linear statistical models, such as normality assumption and linearity, a neuro-fuzzy model will be employed to relate customer's responses (attitudinal loyalty and propensity to switch a provider) and explained variables such as effective communication, trust, satisfaction, commitment, and a customer's cultural market orientation. The proposed neuro-fuzzy model will be calibrated and verified on randomly splits of a sample of PIDC's current customers. To demonstrate the superior performance of the proposed neuro-fuzzy model, a discriminant analysis model and a logistic regression model will be used as comparing benchmarks in this study.

2 - An Empirical Study of Buyer's Response Determinants for R&D Service

Shihyu Chou, Professor, Department of Marketing, National ChungHsing University, No. 250, Kuo-Kwang Road, Taichung, TW, Taiwan - ROC, sychou@dragon.nchu.edu.tw, Yu-Chih Bau, Ya-Wen Lee, Chin-Shien Lin

R&D service outsourcing has become a popular strategy for manufacturing firms in Taiwan in recent years. The plastic technique R&D service market, composing of public and private institutes, laboratories, as well as universities, is of flaming competition; PIDC (Plastic Industry Development Center), one of the major plastic technique R&D service providers, is facing strong pressure of customer retention. Before implementing an effective customer retention policy with limited marketing resources, PIDC is eager to know what determinants affect customers' response, loyalty tendency and propensity to switch provider, and how they impact customers' response. In this study, based on relationship marketing theory, we add market orientation concept to form a framework that relates loyalty tendency and propensity to switch provider to factors including commitment to the relationship, trust in the service provider, satisfaction with the service provider, effective communication with the service provider, and buyer's cultural market orientation. A questionnaire is designed to collect data from PIDC's current customer companies. The structural equations model (SEM) will be used to verify the causal relationships between customer response variables and their determinants, and to test hypotheses developed based on the proposed framework.

3 - Strategic Orientations in a Competitive Environment: Following the Road not Taken

Amir Grinstein, Ben-Gurion University of the Negev, Guilford Glazer School of Management, Ben-Gurion University of the Negev, Beer-Sheva, 84105, Israel, gramir@bgu.ac.il, Elie Ofek, Rohit Deshpande

Strategic orientation studies in marketing often provide "best practice prescriptions' for firms in a given context - matching orientations to environmental conditions. While this contingency perspective has value, empirical results are largely equivocal. We believe that the mixed findings are the result of an important reality that has been ignored by prior research, specifically, the fact that a firm's decision to pursue a particular strategic orientation can depend on the nature of its competitors' strategic orientations. Based on an empirical study we first show that focusing on a particular strategic orientation is generally beneficial for firms. We then contend that the emphasis a firm places on a particular strategic focus depends on whether it operates in a high or low competitive environment. We show that in low competitive environments the firm's strategic focus varies according to the dominant environmental condition (a selling orientation when market turbulence is high, a customer orientation when market growth is high, a technology orientation when technology turbulence is high, and a production orientation when market growth is low). However, in highly competitive environments the degree of focus varies not only according to the dominant environmental condition but also according to competitors' orientation. Specifically, we show that firms tend to differentiate their orientation from rivals' : putting less emphasis on a specific strategic orientation if their main rival is putting more emphasis on that orientation.

4 - The Customization of Products and Distribution Channel Management

Yunchuan Liu, Assistant Professor, College of Business, University of Illinois at Urbana Champaign, 415 Wohlers Hall, 1206 South Sixth Street, Champaign, IL, 61820, United States of America, liuf@uiuc.edu, Yang Liu

In this paper, we study the distribution channel effects on a manufacturer's product customization decision and quality decision. We find that when the customization cost is high, in the monopoly scenario, the manufacturer tends to provide products which are less customized in a decentralized channel than in a centralized channel. In addition, when both the customization level and quality level are adjustable, the monopoly will provide higher quality products with lower customization levels in the decentralized channel. In the duopoly scenario, the manufacturer tends to provide products which are more customized when the competing manufacturer uses a decentralized channel than a centralized channel, and channel decentralization will reduce the manufacturers' incentives to provide product customization.

■ FB16

Galiano

Location Issues in Retailing

Chair: Dan Putler, Associate Professor, Sauder School of Business, University of British Columbia, 2053 Main Mall, Vancouver, BC, V6T 1Z2, Canada, dan.putler@sauder.ubc.ca

1 - Matching Store Location and Configuration with the Spatial Heterogeneity in Sales Potential

Auke Hunneman, University of Groningen, P.O. Box 800, Groningen, 9700 AV, Netherlands, a.hunneman@rug.nl, J. Paul Elhorst, Tammo H.A. Bijmolt

Outlet location affects store performance by driving store choice of consumers. In addition, assortment composition has an effect on spending patterns of various consumer groups. Hence, when evaluating (potential) sites, both store location and composition are important strategic decisions, which should ideally be considered together. A logical extension of retail location models is therefore to aim at improvements in store performance by tailoring store composition to local conditions. In this study, we develop a methodological model supporting store location and composition simultaneously. We use a multivariate spatial error model to predict the spatial distribution of department-level sales based on store, competitor, and consumer characteristics observed at the zip code level. This enables us to evaluate the effect of locating additional outlets on the sales (potential) of new and existing outlets. In addition, retailers may use the model to assess the sales impact of differences in outlet composition, that means the relative size of various departments at each location, which can be used to optimize total chain sales. We apply the model to five years of sales data from 30 clothing stores belonging to one chain. The chain has a loyalty program aimed at strengthening the relationship with its customers. We demonstrate how the approach can be used to (1) assess the impact of location characteristics on store sales, (2) identify locations for new outlets, and (3) find the optimal composition for each store.

2 - New Store Entry and Market Share Change Prediction: Geographic Segment Decompositional Approach

Jungki Kim, PhD Candidate, Graduate School of Management, KAIST, 87 Hoegiro, Dongdaemun-gu, Seoul, Korea, Republic of, gullung@business.kaist.ac.kr, Duk Bin Jun, Myoung Hwan Park, Kyoung Cheon Cha

As retailing businesses are facing more severe competition, managers are becoming interested not only in the sales potential of new stores, but also in market share loss of their existing stores. This study proposes a model that predicts changes in the market share of existing stores caused by the entry of a new store. Patronage heterogeneity is incorporated into the proposed model through a decompositional approach. A market is geographically segmented into a number of residential areas, and consumer patronage change in each geographic segment is explained by shifting choice set formation, which is affected by three factors: consumer awareness of the new store, accessibility to the new store, and substitutability among stores. The proposed model is applied to the motion picture exhibition industry in Korea. Changes in market share are predicted reasonably well, and the estimated heterogeneous patronage shares are validated with consumer survey data. With the identified effects of retailing mix variables, retail managers are able to do a what-if analysis including information such as the portion of the market share loss of existing stores that can be restored by increasing some retailing mix variables. Strategic decision making tasks such as the amount of retailing effort that should be made to maximize the productivity of new stores are also investigated.

3 - Simplifying the Retail Environment in Store Location Decisions: A Variable Radius Density Method

Dan Putler, Associate Professor, Sauder School of Business, University of British Columbia, 2053 Main Mall, Vancouver, BC, V6T 1Z2, Canada, dan.putler@sauder.ubc.ca, Tieshan Li, Charles Weinberg

Consider a manager who is determining where to locate a new retail outlet. A large number of factors will influence the likely success of this outlet, one of them is the nature of the retail environment in close proximity to the outlet. While data on shopping centers is available, this often misses a large percentage of the retail activity in an area. The other data that is available is the location of every retailer in the area. A problem with the individual store location data is that the number of retailers in a large metropolitan area is in the thousands. To make this information useful, individual stores need to be grouped into a much smaller number of retail districts, particularly since it is ultimately the agglomeration of retailers near a potential site that will drive traffic. A number of clustering methods could be used to agglomerate stores into retail districts. The most frequently used algorithm for such situations is DBSCAN, which is based on determining the number (density) of other points within a given radius of a focal point. A limitation of DBSCAN is that it uses a fixed length radius around a focal point. However, this assumption may not always be reasonable. The appropriate radius length will often be shorter in densely populated areas than in less densely populated areas due to factors such as differential travel times. We present a generalization of the DBSCAN algorithm that allows the radius to be determined by a relevant local variable, population density, in a flexible manner. We also examine the ability of a newly developed cluster validation methods (based on a minimum spanning tree) to determine the appropriate parameters of the clustering process. We use the method to develop retail district maps for three British Columbia cities.

Friday, 1:30pm - 3:00pm

■ FC01

Junior D

Advertising by "Words" in Internet Paid Search and Mobile Media

Chair: Randolph E. Bucklin, UCLA Anderson School, 110 Westwood Plaza, Los Angeles, CA, United States of America, rbucklin@anderson.ucla.edu

1- An Analysis of the Profitability of Different Bidding Heuristics in Search Engine Marketing

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Currently, approximately 50 % of the total online advertising spending is used for search engine marketing what makes search engine marketing a multi-billion dollar industry. In search engine marketing the advertising space is sold dependent on the keyword that the user is searching for. Search engine providers use keyword auctions for pricing the clicks and ranking the ads. Top ranks are usually more attractive for advertisers because they lead to more awareness, consequently more clicks and thus, very likely, to more customers. However, the prices per click for those ranks are also higher. These effects obligate advertisers to trade-off between the number of acquired customers and the acquisition cost per customer. Unfortunately, not all the "SEM-billions" are spent wisely. So far, advertisers frequently use bidding heuristics such as "always display your ad at rank 1" or "never pay more than a particular price per click". Those heuristics are very popular as they are easy to implement but there are no studies on the profitability of those heuristics. Hence, the aim of our presentation is to compare and examine the profitability of the different popular bidding heuristics. Therefore, we develop a bidding decision model that determines the profit maximizing bid per keyword and use this model as a benchmark for our examination. The findings of the simulation study reveal that the usage of bidding heuristics leads to losses between -68.17% and -13.57% for the advertiser.

2 - Forecasting Performance of Paid Search Engine Advertising Buys: A Semantics Discovery Approach

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In paid search engine advertising, the advertiser specifies a certain target query and a certain advertisement such that when a user enters that query, the search engine potentially displays that advertisement to the user as part of a list of "sponsored links". We measure the performance of an advertisement in terms of three factors: the number of target users who are exposed to the advertisement, the fraction who click on the link and view more detailed information on the product or service, and the fraction who buy subsequent to such viewing. There are two critical tasks for the paid search marketer. (1) to forecast the three performance values of a proposed target query at a certain bid price, and (2) to use these forecasts to generate a candidate set of target queries. The first task is difficult because the sparse nature of the data make simple empirical-counts-based estimates based on history to be poor predictors of performance. Drawing on ideas from applied linguistics, we instead propose a deeper analysis where we attempt to discover semantic representations of a target query and the meaning that it has for search engine users. We use this semantic representation to infer the search objectives of the user, the extent of match of the text advertisement with the query and to predict performance for the target query. New target queries can be generated that have semantic representations that are similar to those target queries that are observed to perform well.

3 - Predictive Power of Visual and Text-based Features: The Case of Multimedia Offers to Cell Phone Users

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Traditionally, direct marketing companies have relied on pre-testing to select the best offers to send to their audiences. Companies systematically dispatch the offers under consideration to a limited sample of potential buyers, rank the offers with respect to their performance, and send to the wider population only the best performing offers. Though such pre-testing is simple and widely used, the direct marketing industry has been under increased pressure to optimize this procedure, in particular when the number of new offers available grows faster than the time and opportunities available for testing (as in the case of email and mobile marketing). In this paper, we propose a two-phase approach that takes advantage of an offer's multimedia content to improve optimization performance. In a first phase, we use efficient and scalable algorithms to automatically characterize each offer with respect to their text and visual content. We then use the extracted visual and text-based features, together with the price of the products being advertised, to provide a first prediction of the potential offer's performance. In a second phase, only the offers with the greatest potential are then subject to further testing. We show how the proposed two-phase approach significantly improves the performance of a mobile marketing system that sends daily multimedia offers to cell phone users. Surprisingly, using an offer's visual and text-based content provided a greater performance improvement than what could be obtained using the knowledge of an offer's price. We further discuss how the methods developed in this paper could help the study of more traditional marketing communication tools and suggest avenues for future research.

4 - Putting the Advertising into Paid Search

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Paid search advertising (paid search) is an advertising service offered by Internet search engines. It enables advertisers to address consumers during their Internet searches with targeted messages. This service can be conceptualized as a hybrid between traditional advertising and direct marketing. Most existing research, the majority still unpublished, studies paid search as a direct marketing tool. However, paid search also leads to advertising exposures in a traditional sense. If paid search produces an advertising effect above and beyond direct marketing, the economics of paid search might need to be adjusted. The purpose of this study is to investigate the nature and extent of the advertising effect of paid search above and beyond its role as a direct marketing tool. To do this, the authors model paid search in an advertising framework and investigate whether paid search, as an advertising vehicle, affects direct visits to the site (also known as "direct type-in"). The model can be estimated at an aggregate or individual keyword level using Bayesian variable selection methods. The authors apply the model to a keyword-level dataset from a major commercial website in the automotive industry. The results show that advertising effects resulting from paid search should be modeled on a keyword level. The advertising effect is significant and, for our dataset, recovers about 15% of the daily cost of the paid search campaign. Our results allow managers to consider and quantify these advertising effects when managing paid search campaigns on a keyword level.

■ FC02

Junior C

Sales Force Design and Compensation Strategies

Chair: Anne T. Coughlan, Marketing Department, Kellogg School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL, 60208-2008, United States of America, a-coughlan@kellogg.northwestern.edu

1 - Why Do Firms Contract on Sales When Salespeople Influence Margins?

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A long-standing puzzle in sales organizations is the widespread use of the sales metric in compensation contracts, apparently ignoring the significant influence salespeople have over costs. This practice is puzzling because the use of the margin metric, defined as sales less variable costs, motivates both revenue generation and cost-cutting. Moreover, since margin is the objective of the firm, contracting on it has the attractive property of perfectly aligning the goal of the salesperson with that of the firm. Thus, in this research, we ask: (i) What is wrong with contracts based on margins? (ii) How and when can including sales add value? (iii) Can it ever be optimal to prefer sales over margin in the contract?

2 - Product Line Extensions and the Redesign of Salesforce Compensation: A Principal-agent Perspective

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The objective of this paper is to examine whether and how managers may redesign their sales force compensation schemes for an imminent product line extension. We derive the optimal principal-agent contracts before and after a firm introduces a product line extension. We show that a negative correlation between the demands plays an insurance role for the salesperson and leads to an increase in the incentive on the existing product following a line extension. A positive correlation, on the other hand, increases the risk imposed on the salespersons and results in a decrease in the incentive on the existing product. In fact, when the correlation is highly positive, we show that the firm may consider hiring a new salesperson to sell the new product. We further show that although riskier, the new product may receive greater incentives than the existing product. Finally, we show that the relationship between incentive and uncertainty of demand may be more complex than shown by prior research.

3 - Delegation of Pricing Authority to the Sales Force - Its Measurement and Determination

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The decision of delegating pricing authority to the sales force is a major concern of sales managers. Some marketing scholars have developed strong theoretical arguments in favour of delegating pricing authority to the sales force. On the other hand, recent literature argues that limiting pricing authority may be attractive to the firm because it eliminates a specific type of agency cost, namely, the sub-optimal substitution of selling effort by price discounting. Empirical work reveals a significant number of sales organizations yielding only minimal authority to their salespeople. Given these divergent prescriptions and findings, the objective of our work is to identify the factors that are influencing the pricing authority decision. In addition - since empirical research on the issue of centralized vs. decentralized pricing has been scarce - another object of our research is to develop and validate a measure of the degree of pricing authority to the sales force. As well as related literature, we use an agency theory framework to address the issue of delegating pricing authority to the sales force. In a first step we investigate the impact of environmental factors, the degree of information asymmetry, risk aversion of sales people and the difficulty of input measurement on the degree of pricing authority in a base model. In a second step we extend the model by integrating several moderating effects (IT infrastructure, Sales Force Automation, and CRM orientation). In order to test our framework and hypotheses, we conducted a survey in the industrial machinery and electrical engineering industry. We validated our constructs using exploratory and confirmatory factor analysis and subsequently tested our hypotheses using the partial least squares (PLS) approach to structural equation modeling. Preliminary results give support to most of our hypotheses derived from agency theory and suggest that our validated and refined 5-item scale to measure the degree of pricing delegation to the sales force exhibits satisfactory psychometric properties and can be adapted in future research.

4 - Optimal Sales Force Diversification and Group Incentive Payments

Fabio Caldieraro, University of Santa Clara and University of Washington, fcaldieraro@scu.edu, Anne T. Coughlan

This research investigates sales force diversification and the associated compensation offered by firms that can deploy their sales forces to different territory types. Building on insights on financial portfolio diversification, combined with an agency theory perspective on sales force motivation, we show that allocating all salespeople to the same type of territory is not necessarily profit-maximizing, even if this territory type has the highest expected sales productivity. Further, diversifying the sales force across territory types does not coordinate the sales channel. However, diversification along with the offer of a group incentive component in the pay plan can improve profitability over the homogeneous-territory allocation strategy, even when it involves allocating some salespeople to less productive

territories. The logic is that the group incentive effectively diversifies the reward the salesperson accrues in return for effort in his own territory; it thereby decreases a risk-averse salesperson's optimal compensation and may increase optimal effort levels, which in turn increases the firm's sales and profits. Interestingly from a methodological point of view, the "portfolio diversification" insight from the Finance literature is helpful, but not sufficient, to explain our approach to the problem. This is because in the diversification of a financial portfolio, individual stock returns do not change because of their inclusion in the portfolio; but the sales force context must explicitly take account of the fact that the salesperson's optimal effort level can be expected to change as a result of the compensation-plan "portfolio" offered to him, which in turn affects sales and profitability.

■ FC03

Pavilion D

Managerial Decision Making

Chair: Richard Staelin, Duke University, Rstaelin@duke.edu

1 - Managerial Judgment of Customer Value

Joe E. Urbany, University of Notre Dame, urbany@nd.edu, Raymond Kordupleski, James H. Davis

Managers deal with uncertainty in a variety of ways, many quite efficient but having the potential to lead to inaccurate perception of a dynamic environment. Here we examine what appear to be systematic differences between managers' assessments of customer beliefs and values, and what customers' actually believe and need. We explore the nature of such discrepancies through two data sources. First, case studies from two companies are described in which managers' beliefs about customers' value judgments were compared with actual customer data. The focus of this assessment included customer beliefs about the firm and its competitors on key attributes, as well as attribute importance weights. Variance is observed on two dimensions: (1) differences between actual customer beliefs and executive estimates of those beliefs, and (2) differences among executives within the firm in estimating these basic dimensions of customer value. We further discuss why some firms appear to be more knowledgeable about customers than are others.

2 - Are All Managers Created Equal?

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Some managers are better than others. Based on the cognitive hierarchy framework of Camerer, Ho, and Chong (2004), the authors develop a structural econometric model that estimates the level of strategic thinking. In the model, retail managers with a high level of strategic thinking are more likely to correctly infer the expected actions of their competitors. The authors apply this model to decisions by retail managers at 2,233 Internet Service Providers to provide a new service in 1997: 56K modem connection. The model is validated by showing that firms with a higher estimated probability of strategic thinking were more likely to have survived through April 2007. The estimation results show considerable heterogeneity in the degree to which managers behave strategically and suggest that strategic ability affects product choices. In particular, the authors simulate an increase in strategic ability and find that the diffusion rate of 56K modems falls substantially.

3 - Using Expectations Data to Infer Managerial Objectives and Choices

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We develop a framework that combines observed market data with self-reported managerial expectations data to jointly estimate the demand function and objective function of the marketing manager at a large university performing arts center. Our methodology helps us to address four critical issues of great concern to many structural econometric models: (1) the endogeneity issue that arises when almost all product attributes and marketing policies are correlated with unobserved product quality; (2) the decision-maker may be uncertain or even biased in her assessment of true product quality; (3) the manager may be biased in her beliefs concerning the impact of her actions on outcomes, generating choices that appear non-optimal; (4) the manager may have objectives other than pure static profit maximization. The availability of expectations data in our application allows us to relax strong behavioral assumptions, such as rational expectations and profit maximization, and test the degree of the manager's bias in her beliefs regarding product appeal and advertising effectiveness. Our findings suggest that the manager has "objectively correct" beliefs concerning certain key economic parameters, such as the price elasticity of demand, and the impact of advertising. However, the manager appears to be biased in her beliefs concerning the appeal of certain product attributes, and departs from static profit maximization by exhibiting special preference for promoting "avant-garde" art. This latter finding is consistent with the mission statement of the center.

4 - Controlling the Odds: Skill or Conceit?

Abhijit Guha, Duke University, Fuqua School of Business, Durham, NC, abhijit.guha@duke.edu, Bill Boulding, Richard Staelin

The success of a complex marketing project depends not only on the actions of the firm, but also on factors outside the firm's control. However, managers often believe they can use their managerial skill to minimize the potential negative impact of these outside factors, i.e. they exhibit "managerial conceit" (March and Shapira 1987). In this research, we explore the antecedents and consequences of managerial conceit. Using findings from psychology and from management science, we develop an altogether new conceptual model of managerial conceit. We then test this model in two controlled experiments, using a sample of 200+ managers with an average of 6 years of work experience. We find that whenever managers receive cues that cause them to think they can control some outside factor, even though in reality they cannot, managers exhibit conceit, i.e. they behave as if they can "control the odds" related to this outside factor. Such conceit-ridden beliefs feed forward and lead to sub-optimal project-level decisions.

■ FC04

Port Alberni

Social Networks and Market Efficiency

Chair: Jie Feng, Doctoral Student, University of Wisconsin - Milwaukee, 3202 N. Maryland Avenue, Milwaukee, WI, 53211, United States of America, jiefeng@uwm.edu

1 - Factors Affect Purchase Intent and Actual Purchase in Japanese Digital Music Player Market

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In the age of digital network society, it is becoming significantly more important to strategically consider the adoption of new products with network externalities in the marketing area. In this paper, the author develops a conceptual model to compare the factors affecting the purchase intent and actual adoption based on the Technology Acceptance Model (TAM) and network externality literature. The model incorporates four main antecedents; perceived usefulness, ease of use, direct network externality, and indirect network externality. The author empirically tests the model by collecting data from households in Japan for two periods. Two internet surveys were conducted in 2005 and 2006 about the adoption of digital music player, the market of which was at the early growing stage in Japan. Using the data collected from the same 183 panel respondents about the four antecedent factors, purchase intention and actual purchase as well as other control variables, the author finds that the factors affecting the purchase intent before purchase and those affect actual purchase one year later are not necessarily same. The author also analyses the changes in the level of four main factors between two surveys to see which lead the customers to buy the digital music player, whether to have the high level of each factor from the beginning or to experience the enhance of some factors within one year before the purchase. The findings of this research will provide some insightful implications for planning and implementing marketing strategies of new products with network externalities.

2 - When Word-of-mouth Marketing Works: An Agent-Based Simulation Approach

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The strategic use of word-of-mouth between consumers has attracted a wide range of attention from marketing practitioners and researchers. One of the broadly accepted ideas is to target the most "influential" consumers in marketing communication. If this works as expected, the influential consumers would diffuse information into the rest of consumers much more efficiently. Recently, however, Watts and Dodds (2007) claimed that it could not be generalized based on the results from their simulation on the complex network of consumers. The seminal work of Watts and Dodd seems, however, too simplistic to model the communication process among consumers. Thus we incorporate a simple and traditional communication model into simulation on the complex network: Consumers frequently exposed to a message may become aware of it and transmit the

word of mouth to neighbors linked in the network as long as they keep interests. If not exposed to it successively, they may forget. Moreover, too many exposures may lead to the "wear-out" of the communication effect (e.g., Leskovec, Adamic and Huberman 2006). This formulation enables us to evaluate the possible effects of word-of-mouth marketing in terms of not only exposure but awareness, which is a very familiar concept for marketers. We conducted simulation with 1,000 consumer agents linked each other on a variety of complex networks from small world networks to scale-free networks. The results show that the effectiveness of targeting the consumers holding relatively many links to others depends on the properties of the network on which consumers interact. The details will be reported in the conference.

3 - The Network Value of a Customer

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In recent years firms increasingly agree to pay considerable amounts of money for networks of customers with notable examples that include purchases of social network websites (i.e.Facebook, Myspace) or investments in companies offering free communication services such as Skype and ICQ. A key question in this regard relates to the "network value" of a customer - how much customers are worth to a firm just because they belong to a network? To date, little insight is offered in the literature on this issue. In this study we explore this topic combining diffusion of innovation and social threshold modeling. We look at the Net Present Value of a network of customers and examine how the presence of an individual customer impacts this value, where the basic premise is that this value is driven by the acceleration of the adoption growth process. Towards this end we differentiate between the two sources of customer social value: word of mouth value and pure network value. Using Monte Carlo simulations we find that unlike word of mouth value the network value of customers does not always decrease monotonically over the product life cycle, and explore the relationship between the two.

4 - An Investigation of the Antecedents of Online Word of Mouth: Roles of Product Attributes, Satisfaction and Expert Opinions

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The marketing literature suggests that word-of-mouth can play a significant role in influencing consumers' purchase behavior. In fact, some researchers argue that word of mouth may have the most influence among all the sources of information that consumers turn to before making a purchase decision. The growth of the Internet, and mechanisms such as blogs, consumer feedback mechanisms, product reviews by consumers and online discussion forums, thus take on added significance and call for a study of word of mouth in online settings. This is particularly the case since online word of mouth can have a multiplier effect - what one individual says is heard by many others which could lead to further propagation of opinions. The role of word of mouth in the purchase behavior of consumers online has been investigated in the literature. Results from these studies provide some understanding of how word of mouth affects product sales but give few insights regarding why consumers say what they do. From a managerial perspective, an understanding of the factors that lead to an expression of opinions is perhaps more critical because it helps product managers in managing what is said and, hence, how their sales are affected. This is the issue that we investigate in this research. Specifically, we develop a theoretical framework for understanding the antecedents of online word of mouth and test it empirically on data collected from an online forum related to cars. Our findings suggest that, at least in the automobile category, three factors play a role in what consumers say and how many consumers decide to express their opinions: satisfaction with the car, characteristics of the car and what third party organizations
(e.g., J. D. Power) say about the car.

■ FC05

Pavilion C

Emerging Issues in Software and Technology Markets

Chair: Rajendran SriramachandraMurthy, Southern Illinois University, 1025 Lincoln Drive, Mailcode 4629, CARBONDALE, IL, 62901, United States of America, raj@cba.siu.edu

1 - The Performance Impact of Technology Outsourcing

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This paper examines the impact of vertical integration decisions on the technological and marketplace performance of firms in technologically complex environments. In doing so, it seeks to provide an answer to the question: What are the performance consequences of technological integration? Specifically, this research examines the extent to which in-house production influences the ability of a firm to operate on the technological frontier within an industry. It then assesses how activities on the technological frontier in turn impact the marketplace success of firms. The empirical analysis covers data from the global high-definition television industry and includes unique details about the products offered by all major manufacturers in the industry across major markets in the world. Specifically, the data include brand-level sales of Plasma, and LCD TVs across North America, Japan,and Europe. The paper employs a structural approach to studying the research question by estimating both demand and supply. Doing so permits the calculation of costs associated with each type of vertical structure. Finally, the research presents counterfactual analyses that assess the performance impact of potential changes in vertical structure for each firm.

2 - Enterprise Software as a Service

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This paper provides an economic analysis of the newly emerging software-as-a-service (SaaS) phenomenon, which represents a new form of IT outsourcing. We analyze multi-user enterprise software markets that may potentially have both on-premise software and SaaS offerings, taking into account the salient structural differences between the two software models as well as the distinctively discrete nature of each customer's demand. Our analysis shows that it is generally sub-optimal for a monopolist to offer only on-premise software; depending on the cost and benefit differences between SaaS and on-premise applications, the monopolist will offer either SaaS alone or both SaaS and on-premise software even when fixed costs are sunk. Our analysis of a competitive market with one SaaS vendor and one on-premise software vendor shows that, first, both vendors earn positive equilibrium profits. Second, if the on-premise software requires its customers to incur a relatively large fixed cost, the on-premise software vendor's profitability will not be affected by the presence of the SaaS vendor; otherwise, its profitability will decrease as a result of the SaaS vendor's entry. Third, the social surplus may be lower under a competitive market than under a monopoly market. Fourth, software quality-improving or cost-reducing technologies may benefit only customers and not the competing SaaS and on-premise software vendors.

3 - Pricing Strategies for Hybrid Innovations

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Firms are increasingly introducing hybrid innovations, defined as new-to-the-firm products that combine both good(s) and service(s). Hybrid innovations span both B2C and B2B industries. Some B2C hybrid innovations such as TiVo that combines a digital video recorder (good) and recording management (service) are highly visible, while B2B hybrid innovations such as General Electric's Powerplant System that includes a nuclear power plant (good) and repair/project management (service) are more obscure. Anecdotal evidence suggests that the pricing strategy of a hybrid innovation is critical to its success. While pricing strategies for goods innovations have been extensively studied, those for services innovations have been underexplored. Hybrid innovations, which are fundamentally different from goods innovations or services innovations, have received even less attention in marketing or economics. Drawing from the pricing, bundling, and innovation literatures for both goods and services, we explore pricing strategies for hybrid innovations. Our findings help delineate what pricing strategies are most effective for hybrid innovations and

identify the conditions under which these pricing strategies are most effective. Our results have important implications for both marketing researchers and marketing managers.

4 - Is Proprietary Software Under Threat? An Investigation Into the Adoption of Open Source Software

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Free open source software (OSS) has rapidly encroached into the turf of proprietary software (PS), especially in web-server, web-browser and office-suite markets. With over 480 million downloads, Firefox for example, now threatens Internet Explorer's supremacy in web browsers. What factors influence such shifts from PS to OSS? When do such shifts occur? What are the characteristics of users that propel these shifts? Unfortunately, these basic questions remain unexplored. Our study aims to address this research gap. Following an inter-disciplinary literature review, we develop and validate a structural model that explores interrelationships between eleven latent constructs: expertise, anxiety, need for cognition, exploratory behavior, self-efficacy, concern for privacy, price sensitivity, desire for customization, switching costs, risk taking, attitude toward OSS and intention to adopt OSS. The proposed model represents a broad nomological network of antecedent constructs that influence both the attitude toward OSS and the intention to adopt OSS. More specifically, we hypothesize that all user characteristics listed above (except anxiety and switching costs) positively impact attitude toward OSS and intention to adopt OSS. Our study also examines software consumption patterns of users. We investigate whether users substitute or complement commercial software with OSS. Results of the study will not only shed light on the motivations behind OSS adoption but also provide a basic profile of the OSS user. The findings carry profound implications for marketing both open source applications and commercial proprietary software.

■ FC06

Pavilion B

Pharmaceutical Marketing

Chair: Tulikaa Bhatia, Rutgers University, 226 Janice Levin Building, 94 Rockafeleer Road, Piscataway, NJ, 08854, United States of America, tulikaa@rci.rutgers.edu

1 - A New Framework for Formulating Pharmaceutical Marketing Strategies

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The Marketing sales force plays a major role in the promotion of pharmaceuticals, where marketing expenditures can exceed 20% of sales. In the majority of cases, there are only a few products that compete in a given therapeutic class, forming oligopolies. Using the principals of game theory and optimization models, this paper introduces a practical framework for analyzing and formulating pharmaceutical marketing strategies. Such analysis results in better forecasts, better multi-period goal setting, and optimal sales force sizing and call planning practices. The principles of this framework are explained using a two product-market, and then generalized to multi-product markets. As a practical example, a pharmaceutical product is analyzed using this framework, and the results are compared to those from traditional strategy formulations. The framework in matrix notations, a four-product market example, and related SAS codes are presented in the appendix.

2 - Bucking the Trend: A Data Fusion Approach to Forecast the Implications of a Large Policy Shift

Eelco Kappe, PhD Candidate, School of Economics, Erasmus University Rotterdam, Burgemeester Oudlaan 50, Rotterdam, ZH, 3062PA, Netherlands, kappe@few.eur.nl, Stefan Stremersch, Sriram Venkataraman

Over the last decade major pharmaceutical firms have considerably increased their sales force effort directed at physicians. This so-called "arms race" has triggered a lot of public debate and even the involved firms themselves have publicly expressed their concerns about this trend. However, no one is willing to risk bucking the trend. We propose a novel method to forecast the implications of a policy shift, taking into account both demand and supply. Using physician-level panel data, reduced-form demand and supply models are estimated using Bayesian methods. In addition, the authors collected unique conjoint data on supply side decisions for several hypothetical market scenarios, a subset of which mimic the supply-side scenarios in the panel data. Experienced managers of the major pharmaceutical companies have completed a conjoint questionnaire on competitive reactions and sales force allocation. By fusing the two data sources various policy shifts and competitive reactions are analyzed resulting in interesting insights for the pharmaceutical market. The data fusion approach offers a reduced-form alternative compared to the structural supply and demand models to do policy simulations. At the cost of extra data collection effort, the proposed method offers a more flexible approach to conduct policy simulations in complex and competitive markets akin to pharmaceutical marketing. The results indicate how pharmaceutical firms can buck the arms race and offer support to the proposed approach of fusing panel data with conjoint data.

3 - To Switch or Not to Switch: Influence of Generics on Physician Prescription Behavior

Tulikaa Bhatia, Rutgers University, 226 Janice Levin Building, 94 Rockafeleer Road, Piscataway, NJ, 08854, United States of America, tulikaa@rci.rutgers.edu, Lakshman Krishnamurthi, Karsten Hansen

This paper models the influence of the introduction of a generic drug on the switching behavior of physicians. Physicians typically do not switch the patients currently taking the chronic drugs if the drugs seem to be having the expected result. This prescription behavior of physicians changes when a generic drug is introduced and physicians switch patients to the generic drug due to the large difference in price between the branded drugs and the generic drug, We study the change in this physician behavior before and after the introduction of a generic drug for the leading drug in a drug category treating a widely prevalent chronic disease using a hierarchical Bayesian binary probit model of physician prescription behavior. We find a large and significant difference in the price sensitivity and the responsiveness to marketing activity before and after the introduction of the generic drug. We also find that introduction of generic versions of a leading drug leads to switching not just for patients on the same chemical compound but also from some patients currently taking different compounds. We explore further with an in-depth model of physician behavior for new patients and for existing patients separately after the introduction of the generic drug. We identify characteristics of physicians who switch patients from other chemical compounds to the generic drug and characteristics of patients who are most vulnerable to this type of switching.

■ FC07

Pavilion A

Choice-Applications

Chair: Andres Musalem, Duke University, 1 Towerview Dr., Durham, NC, 27708, United States of America, amusalem@duke.edu

1 - Revisiting the Income Effect: Gasoline Prices and Grocery Purchases

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This paper examines the importance of income effects in purchase decisions for everyday products by analyzing the effect of gasoline prices on grocery expenditures. Using detailed scanner data from a large grocery chain as well as data from the Consumer Expenditure Survey (CES), we show that consumers re-allocate their expenditures across and within food-consumption categories in order to offset necessary increases in gasoline expenditures when gasoline prices rise. We show that gasoline expenditures rise one-for one with gasoline prices, consumers substitute away from food-away-from-home and towards groceries in order to partially offset their increased expenditures on gasoline, and that within grocery category, consumers substitute away from regular shelf-price products and towards promotional items in order to save money on overall grocery expenditures. On average, consumers are able to decrease the net price paid per grocery item by 5-11% in response to a 100% increase in gasoline prices. Our results show that consumers respond to permanent changes in income from gasoline prices by substituting towards lower-cost food at the grocery store and lower priced items within grocery category. The substitution away from full-priced items towards sale items has implications for microeconomic discrete-choice demand models as well as for macroeconomic inflation measures that typically do not incorporate frequently changing promotional prices.

2 - A Spatial Model of the Trade-up Decision

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Most consumers in the automobile market are repeat-purchasers who replace their existing vehicles with new ones, rather than first-time buyers who do not own a car. Some of these consumers "trade up" replacing their current vehicles with more luxurious or more expensive models, while others purchase new cars from the same segment as what they currently own. As trading-up is often associated with higher margins and profits, it is important for managers to gain a better understanding of this behavior. However, the existing literature in marketing and economics has generally overlooked the trade-up aspect of new car purchases. Another gap in prior research on automobile choice, which the current research seeks to fill, is that it has overlooked "soft" variables such as consumer attitudes towards vehicles. The authors propose a Bayesian model of trade-up behavior that includes product characteristics, consumer demographics, and consumer attitudes towards driving and vehicle shopping behavior. The model also incorporates the spatial correlation in consumer preferences and responses based on how "close" they are to other consumers in terms of demographic characteristics and attitudes. Data from a large representative survey of consumers who purchased a new vehicle are used to estimate the model.

3 - Empirical Analysis of the Impact of the Product Assortment Information Structure on Brand Choice

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Sivaramakrishna Siddarth

Recent research in marketing has highlighted the important role of the information structure of a product assortment on consumer's perception of variety (Hoch, Bradlow, and Wansink 1999) and, consequently, on store choice behavior. However, this research has been based on experimental data and has not shown the extent to which product assortment impacts choice behavior in a non-experimental setting. The current research models brand choice as a function of the information structure of the assortment of SKU's within a brand, which is operationalized using the entropy measure of van Herpen and Pieters (2002) and the pairwise comparison measure of Hoch, Bradlow, and Wansink (1999). Model parameters, estimated with hierarchical Bayes methods using scanner panel data from multiple product categories, reveal how the impact of the information structure on choice varies across consumers. The authors demonstrate how the model can be used to quantify the impact of product deletion decisions and provide insights that can help manufacturers and retailer provide a better assortment of products in a category.

4 - Structural Estimation of Retail Demand Under Unobserved Out of Stocks

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We develop a structural model of demand to measure the effect of stock-outs. Our model uses store-level sales data and information on product availability. It allows for flexible substitution patterns based on utility maximization, and can be estimated in product categories with many SKUs. We estimate our model using sales data in the Shampoo product category from multiple stores. The model is used to assist the decision making of a store manager in two ways. First, we estimate lost sales induced by product stock-outs and use it to assign a financial value to the cost of stock-outs. Second, we use the model to evaluate simple heuristics that help mitigate the effects of stock-outs.

■ FC08

Port Hardy

Craving and Justification in Hedonic Consumption

Chair: Cait Poynor, University of South Carolina, 118 S. Edisto Avenue, Columbia, SC, 29205, United States of America, cait.poynor@gmail.com

1 - A Hierarchical Generalized Linear Model of Craving and Choice in Motivated Behaviour

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Motivated adaptive behaviors occur in emotion- and reward-laden domains, such as food, where biological processes play a significant role in individual choice. These are also involved in the less adaptive case of addiction. This research presents a hierarchical generalized linear model that views consumer's decision to eat, the craving for food, and the weight of craving into the eating decision as a function of individual differences in motor and attentional indices of cue-triggered decision processes (motivational bias and disinhibition). The research examines these processes in both approach (positive-neutral AST) and avoidance (negative-neutral AST) decision contexts. 132 non-obese adult women engaged in a two-phase study in which they first performed the positive-neutral and negative-neutral version of the affective shifting task (AST), followed by an experience sampling study, in which each participant reported eating behavior on 60 episodes (binary question for whether they had eaten snacks and/or craved particular foods). Results demonstrate affect asymmetry in the relative contribution of motor and attentional disinhibition to snacking: In the positive AST, more motor disinhibition in challenging shifting conditions was predictive of more snacking and a higher weight of craving in such decision. In the negative AST, under the same condition, more motor disinhibition was predictive of less snacking and less craving. For emotional bias in negative AST, more attentional emotional bias was predictive of less snacking, with this effect being observed under shifting conditions. The results are discussed in term of the validity of the model and the insights it provides on decision making processes in food and other domains of motivated behaviors.

2 - The Choice is Right in Front of Us: Information Processing in Hedonic Choice

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In a series of three experiments we used a process-tracing tool to investigate the interplay between the physical proximity of a hedonic product, an individual's predisposition towards the product, information search, and consumer decision making. For hedonic goods (Dhar and Wertenbroch 2006), we find that the nature of consumers' information search differs substantially based on the physical proximity of the product and the predisposition of the individual to indulge in hedonic consumption. In three studies we manipulated the physical proximity of the product (ice cream in studies 1 and 2, chocolate in study 3) to the consumer: the product was either directly in front of the consumer while they searched for product information or it was across the room and given to participants after they completed their information search. The pattern of results was consistent across all three studies. For brevity, we present the results form study 3. We found that when a hedonic product was directly in front of consumers, those who are primed to be high in health consciousness (HHC) spent substantially more time processing product attribute information (M = 271 seconds) then those who were low in health consciousness (LHC, M = 184seconds; p=.007). In addition, HHC consumers spent more time processing negative information, such as calories and fat content (M = 165 seconds), than did LHC consumers (M = 85 seconds; p=.006). As a result, LHC consumers ate two times more chocolate than HHC consumers (LHC, M = 6.4 chocolates; HHC, M = 2.25 chocolates; $p < .001$).

3 - Seize the Day! Enouraging Indulgence for Hyperopic Consumers

Cait Poynor, University of South Carolina, 118 S. Edisto Avenue, Columbia, SC, 29205, United States of America, cait.poynor@gmail.com, Kelly Haws

This research explores the phenomenon of "hyperopia," or an aversion to indulgence, as introduced by Kivetz and Simonson (2002) and Kivetz and Keinan (2006). We first develop and validate a 6-item measure to capture hyperopia as an individual difference. This process includes five independent samples across multiple age groups, and shows that the construct as defined provides convergent and discriminant validity and appears to capture a relatively stable internal tendency. Three empirical studies use this measure to demonstrate that hyperopia and high self-control are both conceptually and empirically distinguishable. First, we show that whereas hyperopia alters the degree to which given items are perceived to be luxurious, self-control does not create this effect. Second, we show that altering the level at which an action or item is construed can make an indulgent goal or luxury product more appealing to the high hyperopia consumer. We show that construal-level does not create the same effects for the high hyperopia consumer. Consistent with past characterizations of hyperopia, we show that this increase in attractiveness is mediated by increasing the object's perceived value in terms of an attractive long-term outcome. In each sample, self-control and hyperopia show nonsignificant correlations; when a meta-analysis of all studies is conducted, we see a small negative correlation with the traits. This research as a whole suggests that hyperopia and high self-control are not only theoretically distinct, they are empirically distinguishable and respond differently to various interventions.

■ FC09

Junior B

Predictive Modeling-Applications

Chair: Zainab Jamal, Research Scientist, HP Labs, 1501 Page Mill Road, Bldg 1U MS 1132, Palo Alto, CA, 94304, United States of America, zainab.jamal@hp.com

1 - Combining Machine Learning and Linear Programming for Marketing Optimization: A Case Study

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In this study, we will report on the actual modeling, implementation and deployment of a large-scale web-based Decision Support system which uses advanced methods of machine learning (such as Boosting algorithms) and linear programming for the optimization of media, promotions, and budget allocation. We will show how the tool is being used by a large technology company to support its marketing planning and operations in Europe. In addition to the practical challenges and user acceptability issues, we will describe the algorithms that we have implemented to address the following two core issues that the system is addressing: 1. Given the high volume data and its heterogeneity, how can we build a robust response model which accounts for the sparse and noisy nature of such data? 2. Given the above response models for various combinations of the portfolio of Marketing Mix/Brand/Country, what is the optimal allocation of budget across such portfolio? For illustration, we will show a live demonstration of the tool.

2 - A Case Study on Service Upgrading Prediction

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Customer Base Analysis is perhaps the first stage of analysis in customer value, aiming to predict purchase frequency and customer lifecycle. An important part of the customer purchase frequency and its retention has to do with the service upgrade. Many models have tried to predict purchase frequency as well as upgrading. The comparison of these models seems important to provide academics with a picture of the current situation. The purpose of this research is to evaluate how models can predict service upgrade among a customer database of an online DVD rental company and suggest an alternative based on data mining techniques and data on historical transactions.

3 - Predicting Customer Profitability with Financial Products

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Gauging customer profitability has not been easy. This study intends to find out the determinants of customer main usage of profitable products ranking from least to most profitable: in person, mail/checks, ACH, phone banking, ATM/debit cards, PC banking, credit cards as measured by their revenue potentials. Utilizing a multinomial model, age, income, attitudinal variables (confidence in economy, outlook on interest rates), length of relationship with the bank, satisfaction with the bank, geographical distance with the bank were found to be significant contributing factors in explaining variances in customer profitability. This study provides foundation for understanding most profitable customers' needs and wants which has been an imperative task for firms.

4 - Identify Best Customers for an Email Campaign: A Discrete Choice Panel Data Model for Rare Events

Moderator: Zainab Jamal, Research Scientist, HP Labs, 1501 Page Mill Road, Bldg 1U MS 1132, Palo Alto, CA, 94304, United States of America, zainab.jamal@hp.com, Panelist: Krishna Venkatraman, Hsui-Khuern Tang, Alex Zhang

Direct marketing managers confront the challenge of identifying and targeting a subset of their existing customers who are most likely to respond to a given email marketing campaign. In this research study, we estimate the probability that a customer will respond to a given campaign, and use it to select the most promising recipients. The problem is difficult since the campaign sizes are very large (in millions), the response rates are extremely low (around 0.05 percent) and the existing customer base is large (tens of millions). Reliable estimators for discrete choice models require a sufficiently large number of positive responses. A naive random sampling approach results in intractably large estimation samples (millions of rows of observations) which require considerable computing resources. The problem is magnified by the need to calibrate models on a regular basis to incorporate additional information on existing customers as well as new customers available to the managers prior to the start of a new email campaign. We use a discrete choice modeling framework with unobserved heterogeneity for a rare events panel data set and use stratified sampling techniques to make the estimation tractable. We evaluate several alternate approaches of modeling and estimation: Simulated Maximum Likelihood, Hierarchical Bayes and Decision Tree models. Finally we discuss implications for extending the models to identify customers who are most likely to complain about marketing emails. It is equally important for managers to identify their "worst customers" as these customers can lead to loss of reputation as well as revenue.

■ FC10

Junior A

Pricing Competition

Chair: Gary Russell, Professor, University of Iowa, 108 PBB, Iowa City, IA, 52242, United States of America, gary-j-russell@uiowa.edu

1 - Moderating Factors of Immediate, Dynamic, and Long-run Cross-price Effects

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In this article we analyze moderating factors of cross-price effects. We therefore contribute to the research stream on asymmetric and neighborhood cross-price effects (Blattberg and Wisniewski 1989 and followers) and respond to Sethuraman (1995) who called for future research about cross-price effects and for considering additional product and brand characteristics as moderating factors. In addition to exploring possible heterogeneity in the dynamics in cross-promotion effects further we provide several new insights to the literature on cross-price effects. We not only focus on determinants of immediate cross-price effects but also investigate heterogeneity in the dynamic and long-term cross-brand effects of price changes. In doing this, we decompose price into regular and promotional price and analyze their cross-brand effects separately. In addition to considering brand-specific moderating factors we also investigate the effect of category-level variables and separate their effects from the influence of similar brand-specific variables. Regarding the brand-specific covariates, an interesting question is which brand's characteristics play a more important role in shaping the cross-price effects; those of the "victim brand", i.e., for the brand whose sales are affected by the price changes of the other brand, or those of the "attacker brand". We find partial evidence for the neighborhood and the asymmetric price effects. An interesting finding is that the attacker's activities seem to play a more important role in determining the cross-price promotional elasticities than the victim brand's actions.

2 - Decomposing the Congestion Effect and the Inference Effect of Competition: A Field Experiment

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Are firms more or less inclined to enter a market with dense competition? This very basic question has received contradictory empirical answers in the literature. The normative recommendation to firms that contemplate entry is therefore ambiguous. We reconcile this controversy by introducing demand uncertainty as a moderator of how entrants respond to existing competition. We distinguish between two effects of competition on entry decisions: a negative ~{!0~}congestion effect~{!1~} where competition dissipates post-entry profits, and a positive ~{!0~}inference effect~{!1~} where firms infer high demand from intense competition. To tease apart these two effects empirically, we use field experiment data from a website that brings together buyers and sellers of used goods. Before each potential seller made a posting request, the website randomly decided whether to disclose the number of buyers and/or sellers, and the exact number to claim. We find evidence of a positive inference effect: When the number of buyers is not disclosed, the overall effect of the number of sellers on entry is neutral; when the number of buyer is disclosed, however, a larger number of sellers lowers the entry propensity due to the congestion effect. We discuss how our results should affect the information disclosure strategies of two-sided platforms.

3 - The Competitive Implications of a "No-Haggle" Price Policy: The Case of the Access Toyota Program

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While many products such as automobiles, musical instruments and boats are traditionally sold through bargaining, some sellers now offer their products at "no-haggle" or fixed prices. The authors empirically investigate the competitive implications of a firm implementing such a policy when its competitors continue to sell their product through negotiation. By using the existence of Toyota's Access fixed price policy in some, but not all, provinces in Canada as a natural experiment, we explore the impact of a no-haggle policy on the sales and prices of Toyota and its closest competitor, Honda. Our results suggest that the program has important competitive implications for both firms. Specifically, we find that in the provinces in which the program was implemented (i) Toyota's sales remained the same, while those of Honda increased, and (ii) both Toyota and Honda experienced an increase in average prices. These finding seem to indicate that both firms benefited from the introduction of the program.

4 - Analyis of Brand Price Competition Using Measures of Brand Similarity

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Brand price competition is a well-researched area of marketing science. Significant progress in elasticity estimation has been made by constraining the pattern of cross-price elasticities using theories from consumer behavior and economics. Bucklin, Russell and Srinivasan (1998) [BRS] developed a theoretical relationship between brand switching patterns and cross-price elasticities. They showed that a matrix of cross-price elasticities is proportional to a simple transformation of a row conditional brand-switching matrix when the underlying consumer population makes purchases following a logit choice model. In this research, we build upon the BRS model by developing a theoretical framework for the specification of sales response models. We construct a corner solution choice model that allows for time variation in purchase quantity. By analytically aggregating this choice model over consumers, we are able to derive a sales model specification in which the brand-switching matrix again plays a key role. We apply the BRS theory to the analysis of brand price competition in the soft drink category. Using store-level data, we develop a random coefficients sales response model that constrains the matrix of cross-price elasticities using brand-switching information. We demonstrate that the new methodology yields high quality estimates of cross-price effects (consistent with a priori notions of category market structure) without sacrificing the level of model fit. We also show how the resulting elasticity estimates can be used to develop optimal pricing in the category.

■ FC11

Port McNeill

eCommerce-Online Information Search

Chair: Benedict Dellaert, Professor, School of Economics, Erasmus University Rotterdam, P.O. Box 1738, Rotterdam, ZH, Netherlands, dellaert@few.eur.nl

1 - Characterizing the Online Search Patterns of the Most Valuable Customers for an E-Commerce Site: A Quantile Regression Approach

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For developing the precise online marketing strategies to the most valuable customers, it is still a puzzle that if there is any typical search behavior pattern among them. That is, do they usually visit the web site frequently but surf few pages, or they make in-depth search for each visit by having a larger number of page views? We conduct two-stage research procedures to address these issues. First, we calculate the concentration degree on customer purchasing behaviors from the comScore database. Our purpose is to find there are how much percentage of cumulative customers ranked by their number of repeat visits and page views, accounting for the top percent of purchase frequency and monetary value respectively. Then we take this corresponding percentage of customers as our most valuable customers. Second, we use quantile regression approach to do further decomposition of online search behaviors from the profile of our selective most valuable customers. By estimating the search propensity at different quantiles of the conditional distribution, we can characterize their prominent online search patterns. Some examples of e-commerce sites, such as books, music and event ticket, are presented to illustrate regression quantile classifications. Our findings may have meaningful implications for refining a more effective segment method to the online purchasing behaviors. The strategic insights are discussed as well.

2 - Information Acquisition Through Web Browsing: A Structural Model of Sequential Search with Learning

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Consumers engage in extensive information search on attributes and price before making their choice, especially for high value goods. Recent research in marketing has tried to understand this information search behavior and its impact on purchases. Most papers have investigated this in the context of frequently purchased goods. However, in this literature, consumer search/learning is limited to information acquisition about a single attribute - a "quality index" in Erdem and Keane (1996) or price in Mehta, Rajiv and Srinivasan (2003). Usually, consumers investigate multiple attributes. The task becomes more complex when the marginal search cost varies across subsets of attributes - some being more costly than others to learn about. This research aims to capture the underlying process of consumer information acquisition while making a choice in such cases. We try to model this search behavior as a sequential search where at each stage the consumer decides whether s/he has acquired enough information to make a decision of whether to quit, purchase or to search further. We make use of mobile phone browsing data for a high value good to model this process. The research tries to build a structural econometric model, as close to actual browsing behavior, and tries to understand the decision process of the consumer. We try to examine the search and choice behavior for the product under consideration using beliefs of the consumer on relevant attributes, the importance of threshold level of information for the search and information gathering, infer the stopping rule and understand how the prior knowledge of the product based on gathered information is updated at each stage and the next action is made by the consumer based on the information s/he has at the time of the purchase.

3 - Local Behavioral Influences in Consumer Product Search

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We conceptualize the process of sequential search for multi-attribute products with recall as a series of "micro" decisions. At each stage of the search process (i.e., for each inspected alternative), the consumer makes two related micro decisions: (1) whether the current product is the most attractive one encountered thus far and (2) whether to terminate the search and buy the best of the inspected alternatives or continue searching. The normative theory of search with recall suggests that the second of these micro decisions should be based on the expected returns to further search, and the first on a comparison of the current alternative and the most attractive alternative inspected up to that point. We propose that, behaviorally, consumers are overly sensitive to recently observed utilities in their search. This general tendency can manifest itself in two specific effects: (1) focalism - attending excessively to the currently inspected alternative at the expense of all others, in line with research in psychology suggesting that people tend to overweight whatever is most salient, or "focal," at a particular moment and neglect other relevant considerations - and (2) local contrast - relying on the most recent previously inspected alternative as a benchmark in evaluating the current one even when it is normatively suboptimal to do so, consistent with work on order effects in step-by-step decisions. We tested these proposed behavioral extensions of the normative theory of sequential product search in two internet-based experiments. The results provide strong support for our hypothesis that consumers tend to engage in local optimizing when making their micro decisions in the search process.

■ FC12

Parksville

Price Perception

Chair: Eric Dolansky, Ph.D. Candidate, Richard Ivey School of Business, 1151 Richmond Street N, London, ON, N6A 3K7, Canada, edolansky@ivey.ca

1 - Dynamic Store Price Image Formation and Category Pricing

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Store price images (SPI), i.e. consumers' summary perceptions and beliefs about the overall price level of a store, are acknowledged to guide store choice and/or purchasing decisions. Therefore, managing SPI, while preserving store profitability, has become a major concern in retailing pricing practice. Despite its managerial relevance, however, little is known about how and how strongly actual category prices influence SPI. In this paper, we examine (i) how category prices translate into SPI over time and (ii) which categories have higher efficacy in shaping a favorable SPI without subsidizing consumers ("lighthouse"categories). To address these issues, we specify a dynamic model of SPI formation in which consumers integrate price information from various product categories and update overall price beliefs over time in a Bayesian fashion. The relative importance of a category in this learning process is then specified as a function of (i) the consumer-specific category monetary relevance and (ii) category-specific characteristics that determine receptivity to price information. We use a Bayesian estimation approach on a unique dataset combining weekly store visit and purchase data (on nearly 20 chains and 60 categories) from a representative panel of households with semi-annual store price perceptions of these same households, over four years. Substantively, our results improve our understanding of the SPI formation process, and of categories' roles at retail. Managerially, by identifying "lighthouse" categories, our study provides guidelines for retailers aiming to improve overall price perceptions without hurting store revenue.

2 - The Effect of Limited Search Horizons on Consumers' Price Search Strategy

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According to search theory, consumers will always increase their search for the lowest price in response to increased price dispersion and low search costs. However, consumers sometimes have conflicting pressures to accelerate or delay their purchase decisions, especially when faced with limitations on their search horizon caused by a purchase deadline. A theoretical framework is proposed to explain how the time left in a search horizon, price dispersion, and price patterns over time affect consumers' perceptions of the variability of their future price expectations, and how these perceptions in turn impact subsequent search behavior. Hypotheses derived from the framework suggest that even with high price dispersion and low search costs, consumers will accelerate purchase when faced with (1) increasing prices and a long search horizon, or (2) decreasing prices and a short search horizon. The hypotheses were tested empirically using a hierarchical, discrete-time hazard model estimated on a sample of search times for rental trucks in which consumers face a known purchase deadline. Test results confirm the hypotheses and reveal that there is significant heterogeneity in consumer response to price, price dispersion, and patterns of price changes as a function of the time left in a search horizon.

3 - Using Price Cues

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Many firms employ an array of price cues, such as sale signs, to convince customers that their prices are low. While there is an extensive literature studying how to set prices, use of price cues has received relatively little attention. In this paper, we study how firms should use price discounts and price cues. We develop theoretical predictions regarding both demand and profits, and then test these predictions in a large-scale empirical study that combines survey metrics and a field experiment. We show that customer price knowledge moderates the impact of both price discounts and price cues. However, the profitability of price discounts and price cues are both determined by a different force. This common force makes it profitable to use price discounts and price cues on the same products, which in turn explains why consumers can rely on price cues as a credible source of price information.

4 - The Impact of the Perceived Variance of Price Sequence on Preference and Choice

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There currently exist many situations, such as internet pricing, where prices are presented as part of a perceptible sequence, as opposed to in isolation from past prices. Despite this, research on pricing typically examines the impact of a single price. Existing reference price theory does not adequately account for sequences of prices; research on sequences has yet to look at price as a context. This research will allow for a better understanding of sequences and the role they play in decision-making. Five studies examine the effects of the sequence mean, slope, and variance through a choice task involving two vendors with different historical price sequences. The key finding is that both mean price and future expected prices have less weight in the purchase decision than perceived variance. Perceived variance is found to have two principle components, variability and predictability. The role of these perceptions is especially important as results show that a vendor offering prices that are perceived to be highly variable is at a substantial disadvantage. Furthermore, perceptions of variance cause participants to consistently select a vendor offering an ascending sequence of prices, even though they expect prices for that particular vendor to be higher during the (future) period when they will be purchasing. This preference is found to be true across all five studies, despite changes in beginning and ending prices and in the means of the price sequences.

■ FC13

Orca

Brand Measurement and Management

Chair: Mark Ratchford, PhD Candidate, Marketing, University of Colorado at Boulder, Leeds School of Business, UCB 419, Boulder, CO, 80309-0419, United States of America, Mark.Ratchford@colorado.edu

1 - A Theory of Six Sigma and Brand Strategies

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Six Sigma in total quality span across organizational functions from human resource management, finance to marketing. A key objective of Six Sigma is about satisfying customers by developing and nurturing appropriate practices and/or cultural norms in creating superior customer value. However, theoretical development concerning the focus of Six Sigma (total quality) on customers compared to other management topics has received the lowest attention. Despite the similarities between perceived product/service performance of quality practices and perceived customer value through branding, theoretical development concerning the role and intersection between Six Sigma and branding has been sparse. In particular, cultural constructs of market orientation and organizational innovativeness support such cross-functional practices of Six Sigma. Furthermore, market orientation enhances innovation and promotes learning being reinforced by Six Sigma cycles. Superior brand performance through innovative cultures does not necessarily have a positive relationship with customer's interpretation of quality but instead could be the result of a sustained pursuit of continuous improvement through Six Sigma. Drawing on these cultural constructs, this theoretical article reviews and conceptualizes a model of Six Sigma's quality practices and branding strategies as regards their influence on brand performance and customer value. The article develops theoretical propositions of Six Sigma that explain how brand performance and perceived customer value are enhanced with insights from market orientation and organizational innovativeness. The article concludes by discussing implications for a theory of Six Sigma and its role in branding strategies, and by suggesting an agenda for further research.

2 - Emotions in Consumer-based Brand Equity: Reconceptualizing Antecedents, Measures and Consequents

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Consumers live in an emotional world: their emotions influence their decisions and their relationship with brands. As Hill (2007, p. 10) pointed out, "humans have a three-part brain, with the older sensory and emotional brands enjoying first-mover advantage over the rational brain. In 1986, Joseph LeDoux discovered the amygdale: the brain's emotional "hot button," which not only triggers but also concludes our decision-making process." This finding has inspired new waves of brain research. However, the marketing literature has remained largely focused on cognition-based approaches. The traditional study of consumer-based brand equity research focuses on the "instrumental" (Alderson 1957) part of the brand. In contrast, the "congenial" part which reflects the subjective, emotional benefits or effects of the brand is largely ignored or at least not explicitly measured. In the present research, we recognize that brand emotions are important parts of brand equity and propose a refined conceptualization of consumer based brand equity to clarify its measurement. We conceptualize brand equity as comprising two parts: tangible brand equity and intangible brand equity. An emotional scale based on appraisal theory is suggested

for measuring brand emotion, which is a measure of intangible brand equity. We distinguish antecedents and consequents of brand equity, which are now commonly used for its measurement, from the focal construct itself. These provide a way to examine the nomological validity of the core construct, brand equity. G-study data are used to examine the conceptual framework we propose.

3 - Measuring Category Brand Relevance: A Cross-country Study

Franziska Voelckner, Professor of Marketing, University of Cologne, Department of Marketing, Albertus-Magnus-Platz, Cologne, 50923, Germany, voelckner@wiso.uni-koeln.de, Marc Fischer, Henrik Sattler

It is well-known that brands are one of the most important assets of companies particularly because consumers are increasingly focusing on brands (e.g., Keller 2008). Though brands are important, they are seemingly not equally important across industries, e.g., when comparing B2B markets with FMCG markets. While the measurement of the equity of a specific brand has attracted a large body of literature (e.g., Keller 2008), the question of how important the existence of brands is for a product category and to which extent this importance differs across categories and countries has been neglected. Measuring and understanding overall category brand relevance (CBR) is crucial for brand investment decisions. For example, selling energy to private households might not require large brand investments because households care more about price or distribution than about the brand. The situation is different in the car market. We introduce CBR, which is a category-level measure not brand-level measure of brand relevance, as a new construct to the marketing literature. We develop a conceptual framework to measure CBR, drivers of CBR and behavioral outcomes of CBR, test our framework empirically with a sample of more than 5,700 consumers and show how these constructs vary across 20 product categories and five countries (France, Japan, Spain, UK, and US). Our results suggest a high validity of the proposed CBR measure and show substantial differences across categories and countries. Our findings have important implications for brand investments.

4 - The Effect of Ingredient Branding Strategies on Vertically Differentiated End-products

Mark Ratchford, Doctoral Candidate, Marketing, University of Colorado at Boulder, Leeds School of Business, UCB 419, Boulder, CO, 80309-0419, United States of America, Mark.Ratchford@colorado.edu, Laura Kornish

A number of products are being sold that contain one or more branded components, with the resulting product containing multiple layers of branding (Venkatesh and Mahajan 1997). This phenomenon is known as "ingredient branding," which exists when a component has its own recognizable brand identity, separate from the end-product's identity (Desai and Keller 2002). With ingredient branding, the ingredient manufacturer seeks not only to push the product to its direct customers, but also to create a pull effect on demand at the end-consumer level. The focus of the present research is on how ingredient branding affects competition in the end-product market and how the ingredient supplier should set prices in light of that competition. The conventional wisdom is that end-products with strong brand names benefit less (or are harmed) by ingredient branding relative to end-products with weak brand names (e.g., Rao and Ruekert 1994). Our model shows that a low quality end-product firm can actually be hurt by ingredient branding. Either the ingredient price can be so high as to drive the low-end product firm away from the branded ingredient, or the ingredient supplier can capture the low quality end-product firm's entire surplus. Further, we find that in many conditions there is a counter-intuitive ingredient pricing policy, with a strongly branded ingredient sold at a low price and a weakly branded ingredient sold at a high price. We obtain this result in situations where increasing the brand strength of the ingredient decreases the differentiation between the end-products. When this condition is met, and when ingredient brand strength can be increased relatively cheaply, we find that a strongly branded ingredient should optimally be sold at a low price.

■ FC14

Finback

Advertising and Sponsorship

Chair: David Schweidel, Assistant Professor, University of Wisconsin-Madison, 975 University Ave, 4172 Grainger Hall, Madison, WI, 53706, United States of America, dschweidel@bus.wisc.edu

1 - Getting into Your Head(ache): Advertising of OTC Analgesics

Jura Liaukonyte, University of Virginia, Department of Economics, 2015 Ivy Road, Charlottesville, VA, 22903, United States of America, Jura@virginia.edu, Simon Anderson, Federico Ciliberto

The OTC analgesics market is characterized by substantial advertising expenditures by the top brands. Advertising-to-sales ratios range from 20-50%. We use a novel dataset where we code the product characteristics featured in the advertisements. For comparative advertisements, we record the rival products mentioned as well as the characteristics used for comparisons. The analysis highlights the role of different types of advertising in enhancing product differentiation. We build a theoretical model based on a logit model of differentiated products where perceived product qualities can be enhanced by positive advertising, and rival qualities can be denigrated. Comparative advertising confers a positive benefit on rivals not targeted. The model gives predictions of positive and negative advertising as a function of the equilibrium sales. It also can be used to predict the responses to shocks. Additionally, we provide a comprehensive, five-year description of the number and types of characteristics mentioned in ads as well as the respective marketing spending. We construct five theoretical hypotheses and test them with our data. First, we find that the fraction of comparative advertising is highest for new brands, or those with low market shares. Second, comparative advertising targets rival brands rather than stablemates. Third, there is only limited support for the idea that each characteristic will be advertised by at most one product. However, we find that nationally advertised brands tend to specialize in which characteristics they advertise the most. Fourth, comparative advertising claims are more likely for experience rather than credence attributes. Finally, we find that usually comparative advertising targets products with different active ingredients.

2 - Exclusive Program Sponsorship: Theory and Evidence

Yi Zhu, Doctoral Student, University of Southern California, KAP300, Department of Economcis, 3620 S. Vermont Ave., Los Angeles, CA, 90089, United States of America, zhuy@usc.edu, Kenneth Wilbur

Advertisement avoidance has become more pervasive, increasing use of an old business model, exclusive program sponsorship. Despite its age, this business model is not well understood. We present a game theoretic model to explain what drives competition in the sponsorship market, and its resulting effects on the product market. We find that prior awareness is positively linked to sponsorship when reservation price is high relative to transportation cost, but the opposite relationship holds when reservation price falls. We test the model's predictions empirically using data from several sources.

3 - Automotive Advertising

Linli Xu, Doctoral Student, Marshall School of Business, USC, Department of Marketing, 3660 Trousdale Parkway, ACC 306E, Los Angeles, Ca, 90089, United States of America, linlixu@usc.edu, Sivaramakrishna Siddarth, Kenneth Wilbur

Firms in the automotive sector spent $6.6 billion to advertise their products in 2007, more than any other industry. Automobile manufacturers typically advertise to build brand equity and inform consumers about product features, while dealership associations often advertise to move cars off their lot. In this paper, we present a modified count model to investigate the interactive effects of manufacturer advertising and dealership association advertising on sales, controlling for price, product, dealer, and customer heterogeneity and correlated demand shocks. We estimate the model using five years of daily sales and advertising data for full-size pick-up trucks in several media markets. We use results to examine product cannibalization and how advertising's effects vary by source, creative execution, advertising medium, and market.

4 - An Integrated Model of Television Tuning Behavior

David Schweidel, Assistant Professor, University of Wisconsin-Madison, 975 University Ave, 4172 Grainger Hall, Madison, WI, 53706, United States of America, dschweidel@bus.wisc.edu, Robert Kent

With advertising purchased based on estimates of the audience size, it is important for both researchers and media planners to understand how tuning behavior varies across set-top boxes, channels, and dayparts. In this research, we consider three pieces of tuning behavior: the decision of whether or not to tune to any channel, channel choice, and the duration for which a set-top box is tuned to the same channel. We propose an integrated model for television tuning behavior that links these behavioral outcomes to a latent construct. Within the modeling framework, we incorporate heterogeneity across set-top boxes, across channels, and across dayparts, which allows us to examine how behavior varies along these dimensions. We estimate the proposed model using a detailed database of second-by-second tuning behavior at the level of the set-top box. Using the proposed framework, we explore the associations found among channels during different dayparts to determine if viewing patterns change over the course of the day. We then turn our attention to the impact of advertisements and investigate if they influence the duration for which a set-top box remains tuned to the same channel. Furthermore, we explore if (and how) their impact varies across channels and dayparts, a question of interest to media planners.

■ FC15

Granville

Financial Markets and Marketing

Chair: Ashwin Malshe, Doctoral Student, SOM, Binghamton University, P.O. Box 6000, Binghamton, NY, 13902-6000, United States of America, amalshe1@binghamton.edu

1 - Should Marketers Listen to Wall Street? Poor Stock Performance and Innovation Risk Taking

Koen Pauwels, Associate Professor, Tuck School of Business at Dartmouth, 100 Tuck Hall, Hanover, NH, 03755, United States of America, koen.h.pauwels@dartmouth.edu, Eric Ghysels

Demonstrating the financial returns of marketing actions has emerged as a top research priority topic, and many recent studies have linked marketing actions with firm stock market performance. An implicit assumption in such studies' recommendations is that marketing managers should pay close attention to the financial market's evaluation of their actions, and recent studies show they indeed do. However, no research has made the full circle to show whether such risk taking pays off (i.e. induces better performance) or instead pushes poor performers deeper into trouble. In other words, should marketing managers use stock market reaction as the ultimate compass to (re)evaluate their major strategic actions? This paper combines financial and stock market performance series of over 10 years with survey data on a large sample of U.S. manufacturing firms to analyze whether the innovation-performance circle is virtuous or vicious. We distinguish the impact of profitability (return on assets) and stock market returns on the firm's reported innovation risk taking (creativity and risk in its product innovation program). Our methodology draws on the "calendar time" studies in finance, which recognize investors' structural uncertainty in the face of forecasting the future cash flow implications of the firm's innovation risk taking.

2 - The Effect of Market-based Business Capabilities on Business Performance

Janny Hoekstra, Professor of Direct Marketing, University of Groningen, P.O. Box 800, Groningen, 9801AS, Netherlands, j.c.hoekstra@rug.nl, Peter Zwart, Mostafa Aakouk

This study addresses the influence of market-based capabilities on business performance. Marketing researchers have been observing for more than two decades that both outside-in and inside-out capabilities affect business performance. Often however, the effects are studied in isolation. In line with the configurational model of market-based competition (e.g., Day 1994), we develop a synthesized classification of market-based capabilities and a measurement model incorporating both outside-in and inside-out capabilities. We distinguish two outside-in capabilities (market-driven and relationship-driven capabilities) and two inside-out capabilities (supply-chain and human-resource capabilities), and address the issue of which market-based capabilities are most effective. We examine firm performance using managers' reports of firm performance and secondary data on firm profitability in a b-to-b wholesale setting. We apply multiple hierarchical linear regression analysis. Initially, we find strong support for the relationship between outside-in capabilities and firm performance. This is in line with the vast majority of published findings on the relationship between market orientation and firm performance (e.g., Cano et al. 2004). However, this effect disappears when investigating the effect of all market-based capabilities simultanuously. Our results suggest that previous research has overestimated the relevance of outside-in capabilities or underestimated the relevance of inside-out capabilities when investigating their financial consequences. This study supports the value of performing interdisciplinary research to better understand marketing phenomena and outcomes.

3 - Market-based Assets and the Cost of Capital

Alexander Himme, Christian-Albrechts-University at Kiel, Olshausenstrafle 40, Kiel, 24098, Germany, himme@bwl.uni-kiel.de, Marc Fischer

This study investigates the impact of market-based assets on an important driver of firm value: the cost of capital. Finance and accounting research has focused on the effect of several tangible assets on the cost of capital which can be decomposed into cost of equity and cost of debt. These research efforts frequently mention that their analysis misses intangible, off-balance sheet assets. Marketing research has started to fill this gap by examining the relationship between market-based assets and the cost of equity. However, little is known about their effects on the cost of debt. In this study, we examine the impact of important market-based assets, i.e. customer satisfaction and brand equity, on the cost of debt as well as the cost of equity. We provide propositions how brand equity and satisfaction influence these two components of capital cost. We test our propositions by using time-series data from a broad sample of firms covering both B2C as well as B2B-businesses. Customer satisfaction data are obtained from the American Customer Satisfaction Index (ACSI). Brand equity data are acquired from the Interbrand Group. Based on traditional approaches in finance research we approximate a firm's cost of equity by its systematic risk (stock-market beta) and the cost of debt by a firm's credit rating. In addition, we control for several accounting metrics and industry-specific effects. Our estimates indicate significant effects of customer satisfaction and brand equity on both the cost of equity and the cost of debt.

4 - The Impact of Branding Strategy on Liquidity and Investors' Transactions Costs

Ashwin Malshe, Doctoral Student, SOM, Binghamton University, P.O. Box 6000, Binghamton, NY, 13902-6000, United States of America, amalshe1@binghamton.edu, Srinivasan Krishnamurthy, Yiuman Tse, Manoj Agarwal

Marketing activities can impact investors' awareness of publicly traded firms. However, we posit that the effect on investor awareness depends critically on the type of branding strategy followed by the firm. We expect that firms will be more visible to investors when they use a corporate branding strategy, where the firm's corporate name is a prominent aspect of the marketing activities. In contrast, firms using a non-corporate-branded strategy would not receive such benefits, because their marketing activities would not be using the firm's name in a significant manner. An increase in the awareness of a firm among investors will increase the liquidity of the firm's stock, and result in a lower cost of capital and higher firm value. We are not aware of any prior studies in the marketing or finance literature that have examined the effect of branding strategy (and its interactions with marketing expenditures) on a firm's stock market liquidity and value. We measure liquidity of firm's stock using bid-ask spreads, obtained from the Trades and quotes (TAQ) database of the New York Stock Exchange (NYSE). To the best of our knowledge, ours is the first study in the marketing literature that uses bid-ask spreads. In our initial analysis of a sample of 141 firms in the S&P500, we find that firms using corporate branding strategy have significantly lower bid-ask spreads, indicating higher stock liquidity. Consistent with our predictions, we also find that higher levels of advertising are associated with lower spreads and higher liquidity for firms following a corporate branding strategy.

■ FC16

Galiano

Retail Store Choice and Competition

Chair: Ryan Luchs, Doctoral Student, University of Pittsburgh, 351 Mervis Hall, Pittsburgh, PA, 15260, United States of America, rjluchs@katz.pitt.edu

1 - Competing with Big-box Retailers

Qingyi Huang, Kellogg School of Management, 2001 Sheridan Rd, Evanston, IL, 60201, United States of America, qingyi-huang@kellogg.northwestern.edu, Vincent Nijs

Big-box retailers such as Wal-Mart and Target have made significant inroads into the food retailing industry in recent years by selling groceries and general merchandise in their super-center store format. To date, Wal-Mart has become the largest food retailer in the United States with a 20% share of the grocery market. The rapid growth of these retail formats has fundamentally changed the competitive structure of the market. Traditional grocery retailers are reportedly facing squeezed profit margins and several have declared bankruptcy. Despite the possible threat big-box retailers pose to the traditional grocery industry, scant empirical research exists on this topic mainly due to lack of data. In this paper, we use a unique dataset to investigate the entry effects of big-box super-center entry on existing grocery stores. The dataset spans more than 100 retail stores located in the US allowing us to evaluate the overall impact of entry on sales and prices and to investigate how market conditions influence these effects. For a subset of products we also have information on product shipments and wholesale prices to stores including the big-box retailers. We model the price and sales volume effects of entry simultaneously and use store, product, and location specific factors to explain variation in these effects. Our data also allow us to test several predictions from theories of imperfect competition. For example, most models of imperfect competition predict that entry into a market by a low-cost competitor will reduce output prices (Basker 2005). Little empirical work has been done, however, to test these theories and quantify their effects.

2 - Competition Between Food Retailing Formats

Wenbin Sun, University of Mississippi, 322 Holman Hall, University, MS, 38677, United States of America, wsun@bus.olemiss.edu, Rahul Govind, Charles Ingene

Academics have devoted considerable theoretical and empirical attention to issues of distribution. The empirical literature has assessed whether "distribution costs too much" (Stewart and Dewhurst 1939), distribution's place in the American economy (Barger 1955), differences in distribution between Great Britain and North America (Hall, Knapp, and Winston 1961), and the evolution of distribution (Bucklin 1972). Much of this literature has focused on food, largely due to its importance in the average consumer's budget. And, since 90% of "food for consumption off-premise" was sold by grocers as recently as 1977, most studies have examined competition between grocery stores. However, recently released data reveals that by 2002, grocers only accounted for two-thirds of "food for consumption off-premise;" warehouse clubs, supercenters, and gasoline stations (!) controlled another 20%. An even more complex picture emerges when "food for consumption on-premise" is considered, for it now accounts for some 40% of the US food budget. Because the literature has not kept pace with changes in food distribution; we examine the structural determinants of food retailing using 2002 data at the Metropolitan Statistical Area level. We use factor analysis to condense our explanatory variables - demographic, socioeconomic, environmental, and deal-proneness - to seven factors. We use these factors to explain food sales at all six retail formats that sell significant amounts of food. In contrast to prior literature, we use merchandise line sales - this approach purifies sales from each format and makes measuring competition more meaningful than using total store sales.

3 - Store Loyalty as a Category-Specific Trait - What Drives It?

Qin Zhang, Assistant Professor of Marketing, University of Texas at Dallas, School of Management, Univ. of Texas at Dallas, Richardson, TX, 75080, United States of America, zhangq@utdallas.edu, Manish Gangwar, P.B. (Seethu) Seetharaman

The literature on store loyalty views a consumer as possessing store loyalty towards a particular store for their overall grocery shopping needs. In this study, we show that store loyalty is a category-specific trait of a consumer instead. In other words, while a given customer may be loyal to Store A in category 1, the same customer may be loyal to Store B in category 2. We call this Store-Category Loyalty (SCL). We propose a model to investigate the factors that can potentially affect a consumer's decision of making category purchases exclusively in one store. We examine this behavior from six aspects: 1) store specific; 2) category specific; 3) household specific; 3) store-category specific; 4) store-household specific; 5) category-household specific and 6) store-category-household specific characteristics. We estimate the model using purchase data of 1321 households across 288 grocery categories and 16 stores. The results show that most of the factors identified from the above six aspects have impact on the SCL of consumers. Knowing these drivers of the SCL behavior of consumers can help retailers better manage the consumer loyalty at the category level and thus improve the overall store loyalty.

4 - A Dynamic Structural Model of Store Choice

Ryan Luchs, PhD Student, University of Pittsburgh, 351 Mervis Hall, Pittsburgh, PA, 15260, United States of America, rjluchs@katz.pitt.edu, Jeffrey Inman, Baohong Sun

We develop a dynamic structural model of household store choice behavior using a multivariate probit model which allows consumers to form expectations about price image at a particular retailer and update their expectations through a Bayesian learning framework. Additionally, we estimate the household level demand for a given period to create expected basket size and composition for each household. We seek to understand how retailers compete at the household level and if consumers use different types of retailers in a complementary or competing fashion. We estimate our proposed model on a unique set of panel data from Nielsen. These data enable one of the most complete pictures of the retail environment in the marketing literature to date. We do this by utilizing four databases of information including: the complete purchase record for a given household in all retail outlets, a demographic file for every household, a file with store characteristics for each outlet, and a file containing store openings and closings in a given market.

Friday, 3:30pm - 5:00pm

■ FD01

Junior D

Search Engines and Marketing Science: An Industry Panel

Moderator: Arvind Rangaswamy, Anchel Professor of Marketing, The Smeal College of Business, Penn State University, University Park, PA, 16802, United States of America, arvindr@psu.edu

In this panel discussion, speakers from leading search engine companies will articulate management, measurement, modeling, and implementation issues in using search engines to drive marketing programs. The session will include presentations and a panel discussion, which we hope will help identify research projects in this emerging area of research that are aligned with the research agendas of both academics and practitioners.

1 - Enterprise Search and Marketing: The User Revolution

Panelist: Zia Zaman, Chief Marketing Officer, FAST, Zia.Zaman@fastsearch.com

Over the past few years, we've witnessed a dramatic revolution in the way in which users are seeking content. Rather than have it published in a uni-directional format by the content creators, the ideal consumption experience puts the user in charge. The lesson for marketers is to create unique user experiences that incorporate personalization, recommendations, intelligent navigation, serendipity, zero-term search, expert location, and information discovery. This "meandering" talk explains each of these terms while touching upon Greek philosophy, children's card games, and why enterprise search may be more important to Microsoft's business than Yahoo.

2 - Search Engines, Contextual Advertising, and Marketing Science

Panelist: Jim Oliver, Head of Quantitative Advertiser Research, Google, Inc, joliver@google.com

Search engines are changing the way people buy and how companies advertise. In this talk, I will address some of the marketing science challenges and opportunities in understanding these changes and taking advantage of voluminous new data.

3- Search Engines, Contextual Advertising, and Marketing Science
Panelist: Oliver J. Rutz, Assistent Professor of Marketing, Yale School of Management, 135 Prospect Street, New Haven CT 06520-8200, United States of America, oliver.rutz@yale.edu, Randolph E. Bucklin

In Internet paid search advertising, many marketers pay for search engines to serve text ads in response to keyword searches that are generic (e.g., "Hotels") or branded (e.g., "Hilton Hotels"). While stand-alone metrics usually show that generic keywords have higher apparent costs to the advertiser than branded keywords, generic search may create a spillover effect on subsequent branded search. Building on the Nerlove-Arrow advertising framework, the authors propose a dynamic linear model to capture the potential spillover from generic to branded paid search. In the model, generic search ads expose users to information about the advertiser's brand, increasing its awareness level. This, in turn, affects future search activity for keywords which include the brand name. Using a Bayesian estimation approach, the authors apply the model to data from a paid search campaign for a major lodging chain. The results show that spillover is asymmetric. Generic search activity positively affects branded search activity via increased awareness but branded search does not affect generic search. Implications for improving metrics for paid search advertising are discussed.

■ FD02

Junior C

Frontiers in Marketing Channels

Chair: Preyas Desai, Duke University, desai@duke.edu

1 - Channel Management with Product Returns
Anne T. Coughlan, Marketing Department, Kellogg School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL, 60208-2008, United States of America, a-coughlan@kellogg.northwestern.edu, R. Canan Savaskan, Jeffrey D. Shulman

A growing concern in many product markets is the appropriate management of consumer product returns. In many product categories, as much as 20% of initial sales are returned by consumers, leading to an estimated annual value of returned goods in the United States of $60 billion. Retailers may assess restocking fees on returned products to help manage these return rates, and some justify the fees by referring to the restocking fees in turn charged to the retailer by its supplying manufacturers. While researchers have examined various aspects of optimal product returns management, both from an operations and a marketing perspective, little attention has been paid to the impact of intermediation - the existence of a channel - on the returns management process. In this research, we examine how pricing and restocking fee decisions made at both the manufacturing and retail levels in a channel influence product return rates and channel profitability. We show in a baseline market structure that the use of a retail intermediary between the manufacturer and final consumer need not distort channel return rates and profitability outcomes relative to those in a vertically integrated channel. We then examine how different marketplace conditions (e.g., competition between manufacturers, or consumer heterogeneity) affect the degree of distortion in pricing, restocking fees, and channel profitability due to channel intermediation.

2 - Store-within-a-store
Kinshuk Jerath, Doctoral Student, Marketing, Wharton, 3730 Walnut Street, Suite 700, Philadelphia, PA, 19104, United States of America, kinshuk@wharton.upenn.edu, John Zhang

Under the store-within-a-store arrangement, retailers rent out their retail space to manufacturers and give them complete autonomy over retail decisions like prices and in-store service. This is an intriguing phenomenon, and is observed only for a few selected categories and only in large department stores like Macy's and JC Penney. In this paper, we use an analytical model to investigate the economic incentives that a retailer faces while deciding upon this arrangement. The retailer's trade-off is between double marginalization and inter-brand competition, moderated by returns to in-store service and increased store traffic. However, the retailer cannot credibly commit to the retail prices and the service levels that the manufacturers will effect in an integrated channel, so it decides, instead, to allow them to set up stores-within-a-store. This suggests, ironically, that stores-within-a-store will be seen when a power retailer gives manufacturers autonomy in its retail space. We conduct a survey and find support for the hypotheses generated by our model.

3 - Choosing the Best Channel Structure in a Multi-brand Multi-channel Market
Eunkyu Lee, Associate Professor, Syracuse University, Whitman School of Management, 721 University Avenue, Syracuse, NY, 13244, United States of America, elee06@syr.edu, Rex Du, Richard Staelin, Weon Sang Yoo

In today's multi-brand multi-channel market environment, choosing the best distribution channel structure involves some inherent tradeoffs. For instance, manufacturers need to consider distribution intensity (a broad distribution network of mass merchandisers versus a limited system of exclusive outlets), vertical integration (manufacturer owned outlets versus decentralized retailers), and whether to use a mixed channel structure (composed of both physical stores and Internet channels). For retailers, assortment breadth (a broad but less differentiated product assortment versus a narrow assortment under exclusive dealing) and whether to engage in multi-channel retailing (composed of physical and Internet outlets) represent critical considerations.

4 - Digital Music Set Free: The Flip Side of DRM
Preyas Desai, Duke University, desai@duke.edu, Debu Purohit, Dinah Vernik

The legal music download market is more than $2 billion. However, a small number of consumers pay for their downloaded music. Digital Rights Management refers to technologies that are designed to control how end users can access, copy or convert digital media. Within the context of music downloads, DRM makes piracy of digital music more difficult and, until recently, most legal outlets for downloadable music sold songs with DRM protection. Recently, music download retailers like Apple have been able to convince EMI and a few other record companies to allow them to sell DRM-free music. From the perspective of sellers, the elimination of DRM is risky for because it can significantly increase piracy. The introduction of DRM-free music raises several important questions: Will music piracy increase as the opponents of DRM-free music predict? Will the music industry profits go up or down? How will CD retailers be affected? Will all labels start selling the unprotected (DRM-free) content? We address these and other related questions. We develop a model of a music distribution channel that allows for traditional CD retailers as well as new iTunes-like download services. Specifically, we consider a record company selling songs through two channels at different wholesale prices: traditional CD retailers and music download services. Consumers have heterogeneous preferences with regard to downloaded music versus CD and also differ in terms of their propensity to engage in piracy. We analyze two cases: one in which the music download service sells DRM protected music and the other in which the music download service sells DRM-free songs. The differences in these cases allow us to make predictions about the effects of eliminating DRM protection. We find several interesting results including the possibility that the level of piracy may go down when DRM protection is removed.

■ FD03

Pavilion D

Alternative Preference Measurements: New Methods and Insights

Chair: Min Ding, Associate Professor of Marketing, Smeal College of Business, Pennsylvania State University, 408 Business Building, University Park, PA, 16802-3007, United States of America, minding@psu.edu

Co-Chair: Young-Hoon Park, Assistant Professor of Marketing, Johnson Graduate School of Management, Cornell University, Cornell University JGSM, 330 Sage Hall, Ithaca, NY, 14853, United States of America, yp34@cornell.edu

1 - Barter Markets for Conjoint Analysis
Eric T. Bradlow, 3730 Walnut Street, 761 JMHH, The Wharton School, The Wharton School, University of Pennsylvania, Philadelphia, PA, 19104 6371, United States of America, ebradlow@wharton.upenn.edu

We propose a new data collection mechanism (barter markets), as an alternative to conjoint analysis, that allows for information diffusion among respondents, as an accelerated method to capture real-life learning and measurement of consumer's partworths for product features. An empirical study that compares the barter method and choice-based conjoint demonstrates very superior out-of-sample predictive performance, both immediately (as is commonly done) and on a two-week later validation task, based on data collected from a barter market. We also show evi-

dence that respondents indeed learn from those who are familiar with the product suggesting those cases, and for what people, the barter market is likely to be superior to traditional conjoint measurement methods. However, in the spirit of "no free lunch", as the barter mechanism is "new to the world", we found that subjects did find the task more taxing (in various ways) suggesting a potential tradeoff between consumer resource allocation (at the time of the task) and (managerial) predictive accuracy.

2 - An Improved Method for the Quantitative Assessment of Customer Priorities

Seenu Srinivasan, Graduate School of Business, L278, Stanford University, Stanford, CA, 94305- 5015, United States of America, srinivasan_seenu@gsb.stanford.edu, Gordon Wyner

Two methods are commonly used to assess priorities for product or service features from individual customers: ratings and constant-sum allocation. A common problem with the ratings approach is that it does not explicitly capture priorities; it is easy for the respondent to say that every feature is important. The traditional constant-sum approach overcomes this limitation, but with a large number of (ten or more) features, it becomes difficult for the respondent to divide a constant sum among all of them. ASEMAP (pronounced Ace-Map, Adaptive Self-Explication of Multi-Attribute Preferences) is a new web-based interactive method for assessing customer priorities. It consists of the respondent first grouping the features into two or more categories of importance (e.g., more important, less important). The respondent then ranks the features in each of the categories from the most important to least important. In order to estimate quantitative values for the priorities, the computer-based approach breaks down the feature importance question into a sequence of constant-sum paired comparison questions. The paired comparisons are chosen adaptively for each respondent to maximize the information elicited from each paired comparison question. Importances for the features are estimated from the constant-sum paired comparisons by log-linear multiple regression. The empirical context was that of assessing research priorities among fifteen topics from managers of Marketing Science Institute's member companies. The ASEMAP method provided a statistically significant and substantially better validity than the traditional constant sum method.

3 - Stability of Screening Rules

William Moore, Professor, Marketing Department, David Eccles School of Business, 1645 E. Campus Center Dr, University of Utah, Salt Lake City, UT, 84112, mktbm@business.utah.edu, Ekaterina Karniouchina

With a drastic growth in the number of available product offerings, consumer choices are becoming increasingly complex. To reflect this marketplace opulence a new class of non-compensatory choice models, that are designed to capture the intricacies of consumer choice set reduction strategies through the introduction of cutoff values, has emerged in the marketing literature. It is widely recognized that preferences are not invariant across choice situations and preference elicitation methods. This suggests that the use of screening rules and elimination strategies may also vary across choice tasks creating a unique set of challenges for this new type of models. Consequently, these models could be more susceptible to the discrepancies between the choice task design and the reality of the market place compared to their traditional compensatory counterparts. Therefore, we examine factors that may adversely influence the cut off value selection. Specifically, we examine how changes in the size of the choice set and in the realism of prices impact the use of these values. We find three sources that could potentially undermine the effectiveness of non-compensatory models: (1) respondents are more likely to use cut-offs when the number of alternatives in a choice set increases, (2) assigning prices that are correlated with attribute quality impact which levels are eliminated, and (3) models calibrated on a smaller number of alternatives in the calibration choice sets compared to the validation choice sets have higher validation rates vis-á-vis situations where calibration and validation choice set sizes are reversed. However, overall there was little difference in the validations of compensatory vs. non-compensatory models.

4 - A Choice Model of Bundles Features and Meta-attributes: An Application to Product Design

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A simplifying strategy for individuals to arrive at brand preferences when there are a fairly large number of product features in a conjoint setting or when decision-making time is limited is to rely on meta-attributes that are typically fewer in number than the number of product characteristics. In this paper we develop a methodology for using meta-attributes to the problem of product design a product with a large number of product features. We implement the methodology for two product categories using a choice-based conjoint analysis and estimate a bundle choice model that incorporates the effects of both direct and complementary product characteristics. We utilize a similar approach for the choice model with meta-attributes. We develop appropriate mapping between the product features and meta-attributes and show how the product features affect ultimate choice through the intervening meta-attributes. We use state-of-the art estimation methods for our model. Our model provides guidelines about how products should be designed for greater consumer acceptance.

■ FD04

Port Alberni

Network Externalities and Self-Selection

Chair: Ernan Haruvy, Assistant Professor, University of Texas at Dallas, Box 830688, Richardson, TX, 75083, United States of America, eharuvy@utdallas.edu

1 - Measurement of Indirect Network Effects in the Market for Flex-fuel Vehicles and E85 Ethanol

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We measure the importance of indirect network effects in the market for ethanol-compatible vehicles and fuels in the state of Minnesota between 2001 and 2006. The effects of interest are the influence of E85 (85% ethanol) fuel availability on consumer demand for flex-fuel (E85 and gasoline compatible) vehicles and the influence of cumulative flex-fuel vehicle demand (the flex-fuel "install base") on E85 fuel availability. Estimates of these cross-elasticities characterize the interdependence of ethanol-compatible vehicle and fuel suppliers, and are thus critical inputs to the design of joint marketing efforts to accelerate adoption of the ethanol fuel standard. Recognizing the highly-localized nature of network effects in this market and the potential loss of identifying variation using aggregate data, we construct a rich (zip code/month) panel data set that incorporates the entire population of individual flex-fuel vehicle registrations and service station E85 adoption decisions. We further obtain exogenous shifters of E85 availability and flex-fuel vehicle demand to separately identify the parameters of our simultaneous equations model during two-stage least-squares estimation. We explore the robustness of our results to alternative specifications of fuel availability, different sets of instruments, and to the inclusion of zip code and period fixed effects. Our estimates are statistically significant and generally robust, providing strong evidence of the presence of network effects. To demonstrate the application of our estimates, we derive the amount a flex-fuel vehicle dealership should be willing to subsidize a 10% increase in local E85 availability.

2 - The Decomposition of Promotional Response Across Four Types of Consumer Groups

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In the past, several researchers have attempted to decompose sales promotion elasticities into three purchase decisions, i.e., choice, timing, and quantity, using household scanner-panel data. Specifically, Gupta (1988) have demonstrated that total sales promotion effects, based on elasticity, can be decomposed into three purchase decisions of households - brand switching (84%), purchase acceleration (14%), and purchase quantity (2%). Bell, Chiang, and Padmanabhan (1999) generalize the results of past studies and show that on average, secondary demand effects (i.e., brand switching) account for 74% of total elasticity and primary demand effects (i.e., timing acceleration and quantity increases) are responsible for the remainder. However, Van Heerde, Gupta, and Wittink (2003) in a later study find that only 33% of the unit sales increase is attributed to the secondary demand effects. Now, one question still remains to be answered: Who should be responsible for the primary and the secondary demand effects? This is the research question that this study is interested in. A review of past studies indicates that the market consists of various types of consumer groups such as value-conscious loyals, deal-prone (or price-elastic) loyals, deal-prone switchers, and variety seekers. Assuming that there are four types of consumer groups in the market, this study investigates how the decomposition results of promotional response are heterogeneous across four types of consumer groups. Empirical results and managerial implications are discussed along with directions for further research.

3 - A Comparison of Different Methods to Separate Treatment from Self-Selection Effects

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Measuring the effects of marketing activities on product usage must consider whether customers participating in marketing activities have different characteristics than those who do not participate. If they do, self-selection effects exist (Heckman 1976). Evaluating the effects of marketing activities without controlling for self-selection effects results in biased estimates and might lead to improper managerial decisions. In this study we discuss different methods that control for self-selection effects and we demonstrate that it matters which method is used to control for those effects. We especially outline that matching methods are attractive in cases where only weak or invalid instrumental variables are available. In a large empirical study, we demonstrate that the effect of using online banking on customer profitability is overestimated when not controlling for self-selection effects. Furthermore, we show how the results can be used to derive implications for customer channel migration. We demonstrate that looking at the effect of marketing activities on product usage behavior, not only on customer profitability, provides more detailed insights for possible channel migration strategies. In this way, it also offers opportunities to increase customer profitability substantially.

4 - An Experimental Investigation of Buyer Determined Procurement Auctions

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Popular procurement auction formats vary along two main dimensions: (1) whether the winner is determined by the lowest price or by the buyer, and (2) whether auctions are sealed bid or dynamic. The attractiveness of these formats critically depends on information available to bidders about each other's qualities. We find that dynamic bidding with the buyer determined format in full information settings is detrimental to buyers. This is because bidders stop bidding short of the theoretical prediction, and this behavior has the greatest impact in the full information dynamic buyer-determined environment. This finding provides evidence that buyers should prefer sealed bid over dynamic auctions, especially if there is reason to believe that suppliers possess information about one another's quality. Buyers also should avoid revealing quality information to bidders (through individual reserves, for example). A methodological contribution of our approach is that it allows us to arrive at useful bounds for formats that are not well understood theoretically.

■ FD05

Pavilion C

Organizational Dynamics and Innovation

Chair: U. N. Umesh, Professor of Marketing and Entrepreneurship, Washington State University, 14204 NE Salmon Creek Avenue, Vancouver, WA, 98685, United States of America, umesh@vancouver.wsu.edu

1 - Patterns in MNC R&D Locations in the 21st Century

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Multinational corporations have been playing a major role in creating and diffusing innovations across national borders. In the last few decades, multinationals have also been extensively outsourcing and off shoring their manufacturing and service operations to developing countries. The received wisdom is that they hold research activities close to their home bases. We test this hypothesis by an extensive analysis of the location of MNC R&D centers and their contribution of US patents by R&D centers and citations of patents. Our sample covers the 500 largest MNCs operating in 21 of the major world economies Preliminary results show that 1) The greatest number of MNCs R&D centers are still located in the U.S. and Germany 2) Contrary to the received wisdom, a major number of MNCs are locating their R&D centers outside the developed nations 3) China and India receive a major share of developing country locations 4) China and India are the fastest growing target locations for such centers. In particular, in the past four years over 50% of all newly opened multinational R&D centers were located in China and India. The authors are continuing research to ascertain a) what factors drive the location of R&D centers and b) what factors drive the productivity of such centers in terms of patents and citation of patents. The authors discuss managerial and public policy implications of the study.

2 - What? When? Why? Dynamics of Learning and Innovation in the Knowledge Economy

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How should incumbent firms in the knowledge economy learn during the innovation process? Should they learn internally, externally or through sequential combinations of internal and external learning? Past literature that studies the effect of learning at a point in time on innovation has failed to unravel the dynamics of learning and innovating. We make three contributions to past literature. First, we view and measure innovation as a dynamic process that begins with a radical phase and is followed by an incremental phase. Second, we study the context of innovation in IT-based services in the knowledge economy. Third, we use the knowledge-based view of the firm to develop arguments based on the path-dependent nature of learning. We draw on the innovation and organizational learning literature to develop our conceptual framework. In doing so, we show that incumbent firms that learn through the path of internal learning during the radical phase followed by external learning during the incremental phase will be slow at radical innovation in IT-based services but fast at subsequent incremental innovations. In contrast, incumbent firms that learn through any other path will be faster at radical innovation but slower at incremental innovations. We study the innovation in IT-based service of online retail banking from 1995 to 2003 using archival data. Analysis of a longitudinal data set of 89 incumbent U.S. banks provides evidence for the thesis. Thus, we provide managers with insight into the innovation outcomes of sequential use of modes of learning during the innovation process. By doing so, we shed light on the what? when? and why? of use of modes of learning during the innovation process.

3 - Entrepreneur's Market Development and Business Growth Strategies

U. N. Umesh, Professor of Marketing and Entrepreneurship, Washington State University, 14204 NE Salmon Creek Avenue, Vancouver, WA, 98685, United States of America, umesh@vancouver.wsu.edu, Elina Petrova

Entrepreneurs are expected to take calculated risks when making strategic decisions to achieve market success. The effects of risk can be mitigated by diversification, particularly at large firms with sufficient resources. However, regardless of the company size, entrepreneurs must often bear a lot of unanticipated risk from owning a large part of a firm or from having a large part of their compensation tied to performance, which is often volatile. We examine how the effort to offset the risk for the entrepreneur while also taking advantage of opportunities in the environment translates into a balance between market entry and expansion strategies. This balance in turn would influence the structure of the marketing mix and the associated allocation of marketing resources. Ultimately, growth rates, on which many entrepreneurial firms are measured - for instance the Inc. 500 list - are dependent on all these factors. The structures of companies, classified by entrepreneurial stages, can be determined not only by the descriptive characteristics of the companies and the industries they operate in, but also by the operational modes followed within the firms. We examine if these structures are related to the marketing strategies and the views of the entrepreneur on the industry and competitors. Surveys of very successful entrepreneurial heads of companies are used to validate the models.

■ FD06

Pavilion B

Health Marketing

Chair: Avinandan Mukherjee, Professor of Marketing, Montclair State University, School of Business, Montclair, NJ, 07043, United States of America, mukherjeeav@mail.montclair.edu

1 - Doctors' Orders: Illness, Compliance, and Spatially-Targeted Marketing

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People who have serious medical conditions often do not comply with "doctors' orders" to change their diet, to exercise more, to drink less, to smoke less, to take their medication, and to make follow-up visits to their doctor. A well-developed medical literature on socio-economic, demo-

graphic, psychographic and health reasons for noncompliance with medication and follow-up visits has largely ignored non-compliance with diet, exercise, drinking, and smoking. Further, there is no literature accounting for the effect of geographic differences in patients' residences on compliance. This leaves us with minimal knowledge for tailoring social marketing initiatives to enhance compliance with non-medical advice, and no knowledge on developing region-specific marketing efforts that might out-perform a one-size-fits-all strategy. We use responses from 47,734 patients affected by one or more of five serious medical conditions to identify four types of compliance: (i) following the right diet, (ii) maintaining a healthy body, (iii) reducing smoking and drinking, and (iv) complying with medication and checkups. As expected from prior literature, we find significant effect of socio-economic and demographic factors, psychographic and health factors on compliance but more interestingly, we also find significant a significant effect of the residential location of patients on their compliance. Each of these factors are significantly associated with the four types of non-compliance factors. Our results have implications for healthcare marketers and healthcare professionals in terms of improving patient compliance.

2 - The Salience of Bad Experiences in Physician Learning

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Bas Donkers, Stefan Stremersch

In order to understand the impact of uncertainty about product characteristics on choices, scholars have recognized the importance of studying consumer learning. We propose a learning model where doctors are uncertain about (i) the average quality of recently marketed drugs and (ii) about the match between a drug and specific patients. To reduce this uncertainty doctors use patients' feedback to update their beliefs. We allow doctors to learn from the perceived rather than the true history of patient feedbacks. Specifically, instead of assuming perfect recall of previous signals, we hypothesize that feedback provided by patients that did not react satisfactorily to a certain drug is more salient in a doctor's memory than feedback of patients that responded satisfactorily. Consequently, the signals of these patients will receive more weight than other patients' signals. We extend the Bayesian updating framework to capture this phenomenon. We estimate our model on a panel dataset with prescription choices in the obstructive airway diseases category (e.g. asthma and chronic obstructive pulmonary disease), which witnessed the introduction of two new major brands in the period (Seretide and Symbicort). We suggest that memory effects interfere with learning, quality inferences and prescription choices. The asymmetric salience of negative events offers a possible explanation for persistent differences in the prescription share of different drugs across physicians.

3 - A Meta-Analysis of Consumer Compliance with Healthcare

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In healthcare marketing, 'compliance' is the extent to which the patients' behavior (in terms of taking medications, following diets, or executing other lifestyle changes) coincides with medical or health advice. A meta-analytical perspective is adopted in this research to understand key determinants of consumer compliance with healthcare. Based on 84 articles and 234 observations, the antecedents of compliance can be categorized into four groups: provider characteristics, product characteristics, patient characteristics, and situational factors. Variables relating to patient relationship management emerge as more critical antecedents to compliance.

■ FD07

Pavilion A

Multiattribute Models

Chair: Anita Prinzie, Dr, Manchester Business School, University of Manchester, Booth Street West, Manchester M15 6PB, United Kingdom, anita.prinzie@mbs.ac.uk

1 - Estimation of Individual Level Multi-attribute Utility from Ordered Paired Preference Comparisons

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Paul Nelson, Dan Horsky

In many policy and managerial contexts it is advantageous to estimate individual level attribute importance weights. This paper addresses four fundamental issues related to such utility function estimation. (a) A theoretical foundation is presented for estimating a cardinal scaled utility function from ordinal preference data, in particular, pairs of pairs and ordered categorical paired comparisons. (b) Linear programming procedures to estimate individual level weights from such data are developed. (c) The statistical properties of these estimates are evaluated. (d) Statistical significance tests for these estimates are proposed and tested. Importantly, simulation results show that the linear programming-based weight estimates more closely approximate the true weights and are more robust to data quality concerns than are ordered logit or regression results even when these are augmented using Hierarchical Bayes techniques. Further, relative to these alternative estimation procedures, the proposed significance tests perform well and have especially favorable Type II error qualities.

2 - Level-individualization in Conjoint Analysis: A New Approach to Preference Measurement

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The investigation of purchase decisions represents one of the key challenges in marketing. In this regard, a particularly appropriate method which is widely applied in both research and practice is Conjoint Analysis. However, Conjoint Analysis in its traditional form (TCA) falls short when it comes to the prediction of complex purchase decisions. First of all, it only permits a limited number of attributes. Moreover it disposes of a standardized survey design. Consequently TCA does not reflect that different individuals consider different criteria in their purchase decisions. As a result numerous conjoint variants, such as the Individualized Conjoint Analysis (ICA) or the Hierachical Individualized Conjoint Analysis (HILCA) have been developed that let individuals select, from a large set of attributes, all those that are especially relevant to them. In spite of this improved portrayal of complex purchase decisions by means of attribute-individualization research in the field of CA still disregards the fact that individuals may also incorporate different attribute levels in their decision-making processes. In order to further improve the prediction of purchase decisions based on CA we investigate if level-individualization also leads to higher validities in preference measurement. In this regard we conduct a large comparison study within the context of the automotive sector, analyzing purchase decisions of 150 test subjects. In this study the results of our newly developed approach yield a significantly higher validity than the existing standardized-level conjoint approaches.

3 - Do All Brands Gain Equally When New Functionalities are Added to a Base Product?

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Recent convergence in the electronics and communications sector has allowed the addition of disparate new functionalities to existing products (e.g., adding a camera or music capability to a Cell Phone). The current research investigates the role of two factors - goal-congruence and perceived brand quality - on the relative gain to brands introducing such convergent products. It is proposed that when a functionality with congruent goals is added to a base (e.g., adding satellite radio to an MP3-music player, both associated with similar consumption goals of "entertainment"), lower quality brands would gain more than high quality ones (H1). A congruent functionality is assimilated into the base, and there is a diminishing utility of such additions to high quality brands (compared to lower quality ones). Conversely, when a functionality with incongruent goals is added (e.g., adding a GPS system for directions to an MP3 player, associated with different goals of "information" and "entertainment," respectively), high quality brands would gain more than lower quality ones (H2). An incongruent functionality is contrasted from the base and it is perceived to perform better in a high quality brand as compared to a lower quality one. These proposed effects were tested in two experimental studies using base products with either a congruent or an incongruent functionality added to them. In Study 1 (using MP3 Player as the base), H1 was confirmed significantly but H2 was not supported. In Study 2 (using PDA - personal digital assistant - as the base), H2 was confirmed directionally.

4 - Exploiting the Interaction Between Hidden Processes for Cross-selling Financial Services

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Customers' longitudinal buying behavior can be conceived as the observed outcome of two hidden interacting processes. On the one hand, a customer's buying behavior results from the customer's conviction to satisfy dormant needs which become salient or new needs that emerge. On the other hand, the customer's decision to give in to these salient or emerging needs depends on the customer's current basket of satisfied needs, i.e. his/her portfolio. We hypothesize that the interaction between these hidden processes emitting a longitudinal sequence of current need satisfaction and a longitudinal sequence of portfolios might contribute to cross-sell predictions. To capture these hidden inter-process influences over time, a Coupled Hidden Markov Model (CHMM) is applied to the observed longitudinal purchase and portfolio-maintenance behavior. Next, these CHMM model estimates are incorporated in a "normal" cross-sell model to support the cross-sell strategy of a financial-services provider. The results illustrate the value of CHMM to gain insight into the nature of interaction between the hidden processes driving current need satisfaction and portfolio-maintenance behavior.

■ FD08

Port Hardy

The Importance of Culture and Ethnicity in Consumer Behavior

Chair: Nikos Kalogeras, Maastricht University, Tongersestraat 53, Maastricht, 6211 LM, Netherlands, Nikos.Kalogeras@mw.unimaas.nl

1 - Predicting and Understanding Chinese Consumers' Intention to Purchase Luxury Goods: An Empirical Test of the Theory of Planned Behavior

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Purpose-The primary goal of this study is to test the cross-cultural applicability and validity of the theory of planned behaviour (Ajzen, 1985) to investigate Chinese consumers' purchasing behavior of luxury goods. Design/methodology-This study investigates the factors hypothesized as having relationships with the determinant components of purchasing luxury goods, including attitude, subjective norm, perceived behavioral control, past behavior, behavior intention and demographics. An Email survey of Chinese consumers was conducted. A representative sample of Chinese urban residents aged between 18 and 45 years old with relatively high household income was established covering twelve major cities: Beijing, Shanghai, Shenzhen, Guangzhou, and Hangzhou, with an annual household income over 80,000RMB; other cities with an annual household income over 60,000RMB. Such households accounts for about ten percent of China city residents according to China National Bureau of Statistics. Structural equation modeling (SEM) is used to test the model in terms of overall model fit, explanatory power and path significance. Originality/value-Many researchers doubt the validity of the theories and models developed in the western cultural context to predict consumer behaviour when applied in non-western culture. The theoretical development and empirical research testing the theory of planned behaviour are conducted and evaluated in this study to advance the theories of consumer behavior. Practical implications-The research on luxury goods is relatively limited in both academic literature and business press, and little, if any, has addressed the consumer behavior in China market. The research thus also potentially carries significant implications for marketing globally luxury goods.

2 - Do Perceptions of Service Quality Vary for Different Ethnic Groups? An Empirical Investigation

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The United States is now more ethnically diverse than any other time in its history. In 2000, minority ethnic groups comprised 26% of the US population; by 2010, they will comprise 29 percent, and in 2080 they will form the majority of American citizens. Unfortunately, a common complaint of many ethnic people is that many products and services are not designed to cater to their specific needs. They cite, for example, that many products (e.g., food, cosmetics, and fashion items), and services (e.g., health care and social services) are not customized for specific ethnic groups. There may be several reasons why companies may overlook ethnic diversity of their customers: 1. The size of a given ethnic market is not large enough to justify a customized product and promotion strategy 2.There is a lack of cultural appreciation that ethnic groups differ with the Whites, and with one another, in terms of their product and service usage, media habits, and language proficiency. In this study, we focus on the second reason outlined above. In particular, we develop a set of scales that capture the characteristics of two major ethnic groups, Blacks and Hispanics, and the majority White population. In our study, we focus on services, specifically health care and social services. Using data collected from a set of surveys drawing random samples from three aforementioned ethnic groups, we find contrasting results for these three groups in (a) health and social service usage pattern, (b) media exposure pattern, and (c) message preferences. Finally, we outline the major managerial implications for our results, and suggest appropriate marketing strategies to address these issues.

3 - Consumer Risk Behavior in Times of Crises: A Cross-cultural Study

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Recent research argued that by decoupling the risk behavior of consumers into the separate components of risk perception and risk attitude, a more robust conceptualization and prediction of consumers' risk response is possible. Furthermore, it is argued that the influence of risk attitudes and risk perceptions on consumer behaviour can be used to formulate effective marketing strategies in case of a market crisis. The question arises whether or not the influence of these risk variables changes over time (i.e., due to changes in the decision context) and, hence, whether marketing strategies must be adapted. The BSE (mad cow disease) crises in the U.S., Germany and The Netherlands in 2001 and 2004 provided us with a natural experiment to examine the relationship between risk attitudes and perceptions and behavior over time. The results show that in some countries the relative importance of risk attitudes and risk perceptions does not change over time and, hence, that marketing strategies do not need to be changed. However, for other countries the relative importance of the risk variables does change, calling for different marketing strategies during the times (i.e., phases) of a crisis. Knowledge of the influence of consumer risk attitudes and perceptions on behavior and changes therein over time will drive the extent to which marketing strategies have to be adapted and, hence, inform industry investment decisions on choosing and implementing successful strategies in times of product-related crises.

■ FD09

Junior B

Predictive Modeling-Methods

Chair: Makoto Abe, Professor, The University of Tokyo, Graduate School of Economics, 7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-0033, Japan, abe@e.u-tokyo.ac.jp

1 - Semi-supervised Learning for Response Modeling

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Response modeling is concerned with targeting customers who are likely to purchase a promoted product or service based on customers' data. A well developed response model can increase profitability while reducing marketing costs. Modeling is usually carried out in a supervised learning framework where only those customer data labeled from the past campaign are used. A response model would predict labels of other customers who are not labeled. One disadvantage of this approach is that only a small percentage of customer data is labeled, thus available for modeling. A semi-supervised learning framework has recently been proposed to improve classification performance by exploiting unlabeled as well as labeled data in modeling based on an intuitive assumption: similar attributes lead to similar labels. In order to address this issue, we propose to use semi-supervised learning approaches for response modeling where a large number of unlabeled data are available. In particular, the multiple graph algorithm fits well to response modeling where customer data come from qualitatively different sources. Through experiments on the CoIL Challenge 2000 dataset, it is shown that the algorithm results in a better model than conventional supervised algorithms in terms of a variety of performance measures. Semi-supervised learning is a viable option and merits further investigation.

2 - Contextual Determinants of the Predictive Accuracy of Binary Prediction Models

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Previous research has investigated what models perform well in specific prediction tasks, including customer churn, CLV, etc. Recently, Lemmens et al. (2006) proposed bagging and in particular boosting as attractive alternatives to the frequently used logit model to predict customer defection in the US telecommunication industry. They advocate the advantages of these aggregation methods in presence of large datasets that contain a high number of predictors. However, further research is needed to investigate whether the high predictive power of these approaches can generalize to other settings. This paper therefore asks the question: What conditions affect the predictive performance of the various approaches to model binary choices? and What model should managers prefer under specific conditions? We compare four approaches, bagging, boosting, logit and latent class logit models. To investigate the determinants of predictive accuracy, we generate many datasets with varying characteristics, such as, among others, sample size, asymmetry of the distribution of 0/1, inclusion of irrelevant variables, nonlinearity of the relationship. The predictive performance is then investigated through a validation sample, using as performance criteria the hit-rate, the gini coefficient and the top-decile lift. We find that bagging does not live up to expectations, but that the other three approaches all have their merits. The non-parametric nature of bagging and boosting, relative to the logit models, proves beneficial for non-linear relationships, while it hurts performance the more variables are included. We illustrate the findings from the simulation study using a number of real-life marketing datasets that differ in the dimensions identified as influential in the simulation study.

3 - Optimizing the Value of Incentives for New Customers

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Firms often use very appealing incentives to attract new customers. Newspapers, for example, use reduced prices for the first year of subscription, sometimes even in combination with additional gifts. Thereby, firms need to determine the amount of incentives which they would like to provide. Very small incentives lead only to a limited number of (most likely) loyal customers, whereas high incentives lead to a high number of customers. Yet, those customers are likely to suffer from "adverse selection" because they tend to be rather non-loyal as they are primarily attracted by the incentive and not by the product itself. Hence, the value of the incentive has two effects: it determines the number of customers as well as the average customer lifetime value, which means that an optimal value for the incentive exists. Despite the importance of this problem, research on that problem is rare. Only Cao/Gruca (2005) deal with adverse selection in the credit approval process and present an approach for selecting customers for a cross-selling campaign based on response and approval likelihoods. Yet, they do not focus on the optimal value of possible incentives. Therefore, we address in our paper the problem of how to determine the optimal value of the incentive for new customers. We develop a model and use an empirical data-set from a major European Bank to illustrate the application of the model and to calculate a possible increase in long-term profitability. Based on those results we derive managerial implications for customer acquisition activities under adverse selection.

4 - Counting Your Customers' One by One: A Hierarchical Bayes Extension to the Pareto/NBD Model

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This research extends a Pareto/NBD model of customer-base analysis using a hierarchical Bayesian (HB) framework to suit todays customized marketing. The proposed HB model presumes three tried and tested assumptions of Pareto/NBD models: (1) a Poisson purchase process, (2) a memoryless dropout process (i.e., constant hazard rate), and (3) heterogeneity across customers, while relaxing the independence assumption of the purchase and dropout rates and incorporating customer characteristics as covariates. The model also provides useful output for CRM, such as a customer-specific lifetime and survival rate, as by-products of the MCMC estimation. Using three different types of databases – music CD for e-commerce, FSP data for a department store and a music CD chain, the HB model is compared against the benchmark Pareto/NBD model. The study demonstrates that recency-frequency data, in conjunction with customer behavior and characteristics, can provide important insights into direct marketing issues, such as the demographic profile of best customers and whether long-life customers spend more.

■ FD10

Junior A

Time Series Market Analysis

Chair: Hernan Bruno, Assistant Professor, Erasmus School of Economics, Marketing Division H15-11, Postbus 1738, Rotterdam, 3000 DR, Netherlands, bruno@few.eur.nl

1 - Structural Dynamics of Competition and its Effects on Long-term Customer Profitability

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Competitive dynamics in a market hamper marketing departments from being able to always maximize customer profitability. The focus of this study is to analyze effects of market concentration and shifting modes of competition on customer profitability. While the theoretical literature bearing on the effects of market structure and different modes of competition comes largely from economic and industrial organization research, much of the empirical research has been done in strategy and management literature. Hitherto marketing studies on competitive dynamics primary focused on detecting reactivity in the market rather than differences in customer management and price strategy. Drawing on both economic and marketing literature, we develop a conceptual framework which explains how to allocate resources on new and existing customers and how to understand price trends by considering shifts in the mode of competition, for instance from duopoly to oligopoly. Based on this framework, we show how to model time-varying modes of competition in assessing the long-run impact of marketing decisions on customer profitability and translate it into a structural vector autoregression approach (SVAR). Thus, the influence of upstream market concentration on long-term trends in sales and marketing efforts can be examined. The proposed model captures the effects of price policy variations when modes of competition change over time and how the altering competitive environment affects sales of new and existing customers. Since lags in the impact of marketing actions on market reactions depend on the present composition of the market structure, the model explicitly accounts for market dynamics when differentiating between short-term and long-term effects.

2 - Dynamic Customer Management on Duration Time Structure

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Let's think about customers as a population or a cohort; a cohort is the set of all individuals born, hatched, or recruited into population during a defined time interval. And we can classify the population of customers into several stages by duration time; how long they have their consumer durables in use. Once a transition matrix has been estimated from real data, the basic information of interest to the marketer are the rate of population increase (the dominant eigenvalue, f É), the stable duration time distribution(the right eigenvector), and the distribution of reproductive value (the left eigenvector) But, although these figures may be of interest in and of themselves, the way they might change is often of interest also. Marketers may want to know how the dominant eigenvalue changes in response to a management decision; the timing of new product launch or the allocation of promotion budget to some stages of population. The goal is to understand the effect of a management decision on the rate of population growth. Thus, we propose sensitivity analysis and elasticity analysis of the matrix. In empirical study, we will apply our proposed models to the mobile telephone market. These figures including eigenvalue, eigenvectors, sensitivities, and elasticities will allude us something strategic and intrinsic information about customer management that the previous researches of customers; CRM or retention and churn of customers cannot provide to us well.

3 - The Impact of Pricing on Customer Profitability: Evidence From an Industrial Market

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We show that the price paid by customers can have significant consequences in their long-term purchasing behavior. This is particularly important in industrial markets, where negotiated prices are a common practice. We decompose the price paid in a particular transaction into the average markup, which captures the price level in relation to the cost of the product, and the price paid in relation to the average markup ,which captures the price paid in relation to what other customers pay (the "deal"). We then develop a conceptual model based on the assumption that customers

who pay higher prices are more likely to search for alternative suppliers. Using a database from an industrial company, we analyze the purchasing pattern of customers across time. We find that higher prices (in either of the components of pricing: the 'markup' or the 'deal') significantly explain lower subsequent transaction frequencies. We also show that most of this variation arises from the positive effect on future purchase frequency of the customers who pay low prices along either of the two components. We also show that this effect is weaker for customers who have high purchase frequency or high average purchase volume. Conversely, the effect is stronger for customers who purchase a large variety of products or that interact with many distinct salespeople. Moreover, we show that price levels do not explain future changes in average purchase volume. As a conclusion, we evaluate the impact of pricing on the long-term profitability of customers.

■ FD11

Port McNeill

eCommerce-Consumer Choice and Learning

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1 - The Effect of Internet Adoption on Catalog Customers' Buying Behavior

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Since the inception of Internet, online retail has enjoyed tremendous growth and become an important part of the retailing economy. As a result, many traditional retail businesses have established presence on the web. Customers' migration to the online channel and their purchasing behavior in the virtual space are hence of great interest to both the business and academic community. In this paper, we use household level panel data from a large catalog company to study consumers' adoption of Internet as a purchase channel. The rich dataset contains detailed information on the product, purchase time and price of all transactions. The long data series allow us to observe customers' behavior both before and after they adopt the online channel.

2 - The Impact of Internet Adoption on Customer Purchasing Behavior in Direct Marketing

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The Internet has grown rapidly as a channel of distribution for direct marketers. Consequently, understanding the demand side impacts of the adoption of the Internet have become important. A basic demand side measure of the impact of the Internet is the Internet's share of purchases. Other demand side impacts of the adoption of the Internet include expansion or contraction of (1) the size of customer orders, (2) the number of items per order, (3) the number of categories purchased in, and (4) the purchasing frequency of customers. These effects have important policy implications. They also help develop a broader understanding of the Internet beyond its share of purchases. Investigating these effects requires adequate data about customer purchasing behavior both before and after the introduction of the Internet. We investigate these issues using a data set from a direct marketer. The data set provides a 10 year history of customer purchasing behavior and spans both pre and post Internet introduction periods. We develop models of customer purchasing dynamics at the individual customer level, while incorporating the impact of the introduction of the Internet as a discrete event that impacts the purchase dynamics over multiple time periods. We highlight our key findings and opportunities for future research.

3 - Does Opening a Physical Store Change Customer Behavior?

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This study examines consumers' multi-channel behavior. Specifically we focus on whether and how opening a physical store changes purchase and return/exchange behavior of the existing customers of a company previously sold through catalogues and Internet only. We are interested in investigating the question at two decision levels. At the first level, we look at consumers' overall purchase and return decision, i.e. whether they decide to make a purchase, and given a purchase is made whether they decide to return. At the second decision level, we look at consumers' channel selection decision for purchase and return decision for each channel, i.e. whether decide to make a purchase through catalogue, or Internet, or at the physical store, and given a purchase is been made whether they decide to return to the store or return remotely (mail it back). We also pay particular attention to those store returns that were originally purchased through catalogue or Internet. For both levels of analyses, we want to quantify the effect of opening a store on consumers' purchase and channel selection decision. In addition, we want to measure how this effect differs across different consumer segments and whether the strength of this effect varies with distance to the store. Given the multi-level nature of the research question we are trying to address and the structure of the data, we implement Bayesian hierarchical model to model purchase and return decision as functions of store opening and price promotion at the first modeling level and of consumer segments'and driving distance at the second modeling level. Our data of eleven years worth of household level full transaction history are provided by a major apparel catalogue company and category we chose is women's apparel.

4 - The Impact of Visualizing a Product's Price History at Price Comparison Sites on Consumer Decisions

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Price comparison sites like DealTime.com continuously provide up-to-date market information for a wide range of products. Price comparison tables, retailer and product ratings or user reviews are typical information offerings for an increasing number of online and brick-and-mortar customers, respectively. However, there are price comparison sites like NexTag.com or pricescan.com, which provide additional price information about a product's price history displayed as a chart. In our contribution, we analyze the effect of such price charts on consumer decision making. Specifically, we investigate the role of trend and variance on (1) purchase timing, (2) price expectations, and (3) decision quality. On one hand our results clearly show that the chart information about a product's past prices causes shoppers to defer their purchase decisions for getting a better price. On the other hand this information increases a consumers perceived decision quality. In general our analysis shows potential threads for price comparison sites as well as for retailers or manufacturers who might consider choosing price comparison site as additional sales channels.

■ FD12

Parksville

Price Promotions and Price Discrimination

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1 - Market Segmentation for Pricing Strategy

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There are many pricing strategies as shown by Tellis (1986). In differential pricing strategies like geographic pricing strategy, or second market pricing strategy, understanding the difference of response to price by consumers and conducting price differentiation among markets is required. Therefore market segmentation based on consumer price sensitivity is helpful in order to conduct differential pricing strategy. The purpose of this research is to suggest the market segmentation method for pricing strategy. In this paper, mixture model is conducted for market segmentation to clarify consumer heterogeneity in terms of factors related to price sensitivity. Application of mixture model to frequent shopper data from supermarkets in Japan is illustrated. Based on the result, effective market segmentation for pricing strategy is discussed.

2 - Endogenous vs. Exogenous Wholesale Prices During Instant Rebates

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The conventional wisdom in channels is that retailers benefit more from the use of consumer promotions than do manufacturers. This paper assesses this claim and examines how two different pricing approaches during manufacturers' instant price promotions targeted at consumers impact on channel profits in a bilateral monopoly. The wholesale price is exogenous

when a Stackelberg leader manufacturer maintains the prior-to-promotion price and then determines the size of the rebates, while it is endogenous when it is determined simultaneously with the rebates. The main findings of this analytical inquiry are that, contrary to the conventional wisdom, manufacturers earn higher profits with endogenous pricing, while either of the two channel members may be better off with an exogenous pricing approach, depending on the short-term and long-term effects of rebates. It is also demonstrated that Ailawadi's (2001) argument that positive post promotional effects explain why manufacturers earn more profits than retailers may not be enough. This argument only automatically holds when the short-term effects of rebates are not higher than the effectiveness of retail prices or in other words, retailers find no incentives to increase retail prices because of consumer rebates.

3 - Endogenous and Exogenous Determinants of Inter-Category Price Sensitivity- A Spatial Approach

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With the proliferation of brands across the entire value spectrum, pricing is emerging as the key differentiating factor. Leveraging pricing to drive incremental market share has never been more important. We attempt to not only estimate how price sensitivities are influenced by demographics of the store trade area, but also endogeneity in price sensitivities across major grocery categories (trade areas were determined using Reilly's Law of Retail Gravitation to infer the appropriate radius around the store Zip Code). Our approach differs from other studies in this area in that existing and past research have only tried to identify factors that determine price sensitivity, including time-varying (economic trend) and spatial (geographic and demographic). It is intuitive to expect a joint dependency in price sensitivity in complementary and substitutable categories, which requires a simultaneous relationship between price sensitivities across these categories. We accomplish this by first estimating store-level price elasticities across multiple grocery categories and estimating a simultaneous regression model, with an endogenous relationship between category price elasticity, with store trade area demographics as exogenous factors.

4 - Innovative Pricing Strategies Under Strategic Consumer Behavior

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In recent years, there has been an increasing interest in exploring strategic consumer behavior in the context of revenue management. In this paper, we discuss ways in which sellers can adopt creative pricing schemes to optimally price products in the face of strategic consumer behavior. Such innovative pricing mechanisms should be tailored to discourage strategic waiting for price discounts, but should not harm the sellers' ability to segment customers. Specifically we present a contingent "Reward - Rebate" structure for pricing of a finite quantity of a fashion-like seasonal merchandise, in the presence of forward-looking (strategic) customers. We show that the suggested pricing structure generalizes many of the existing pricing practices, thus allowing for direct comparisons between seemingly different pricing rules. We further investigate the seller's profit in a rational expectations equilibrium under several variations of the contingent Reward-Rebate structure.

■ FD13

Orca

Questions on Brand Identity, Personality, and Extension

Chair: Robert Kreuzbauer, Visiting Assistant Professor, University of Illinois Urbana-Champaign, 1206 S. 6th. Street, WH 350A, Champaign, IL, 61820, United States of America, kreuzbar@uiuc.edu

1 - The Interchangeability of Brand Extensions

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This research will examine the attribute inference, stereotyping, and attribute generalization of high and low entitative family brands with the group-level attribute transference (GLAT) model. The GLAT model is a transformation of the group-level trait transference (GLTT) model, which is originally proposed to illustrate the trait transference in social groups. Group entitativity is defined as the coherence of a collection of persons being bound together. A high entitative social group is a group with coherent group members, whereas a high entitative family brand is a family brand with coherent brand extensions. The concept of coherence is discussed in the two aspects of categorical similarity and interdependence, which are two key antecedents of perceived entitativity. It is predicted that, for high entitative family brands, the attribute implications of each brand extension will be abstracted, general characterizations (or stereotypes) will be formed, and the attribute implications of each brand extension will be generalized across all other brand extensions. For low entitative family brands and product aggregates, the attribute implications of each brand extension will also be abstracted. However, no general characterization (or stereotype) will be formed, and the attribute implications of each brand extension will not be generalized across all other brand extensions. Moreover, the recollection of specific information about individual brand extensions is more difficult for high entitative family brands than low family brands and product aggregates. High entitative family brands are more favorably evaluated than low entitative family brands.

2 - Designing Coolness: Brand Building in the Global Fashion Industry

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Why are some brands cool? Why do some brands retain their coolness for long periods of time, while others turn out to be flashes in the pan? This research addresses this question by examining the role that the people behind the brand play in creating and maintaining coolness. We argue that cool brands are the embodiment of individuals, rather than of abstract corporate entities. We test our thesis in the context of the global fashion industry. We use a specially constructed panel dataset of 616 ready-to-wear fashion firms over the 1984-1991 period to highlight the role that individuals play in making brands cool. We measure coolness by examining appearances of ready-to-wear brands in Italian Vogue. Moreover, we highlight why some individuals are more successful than others in maintaining the coolness of their brands. We show that there exist different paths to coolness, and that these paths vary by national context.

3 - Brand Personality: Transference and Preference

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Brand personality is defined as "the set of human characteristics associated with a brand" (Aaker, 1997). It is used by marketers to differentiate their brand from competitors' and by consumers to portray aspects of their own personalities through association. It is a common belief that the brand a person uses conveys to others something about the user of that brand. This research seeks to: 1) understand brand personality perceptions in relation to personality perceptions of the consumers of that brand (i.e., will a person using a given brand be perceived as having a personality more similar to that brand than a non- user?); 2) examine the perceived personality of consumers of a brand versus non-consumers - the expectation being that those who use a given brand will be perceived as having personalities that are different from non-users; and 3) investigate how brand preference relates to perceptions of brand personality. In a series of experiments, the degree of brand association was manipulated at three levels to determine whether and how brand association mediates perceptions of the individual. Participants used Aaker's (1997) Brand Personality Scale to rate individuals or brands on each of five dimensions (sincerity, excitement, competence, sophistication, and ruggedness). Costley and Brucks' scale (1992) was used to measure brand preference. Results were mixed. Brand users are not seen as having personalities more congruent with the brand's personality than non-users. While many consumers believe using a certain brand conveys a message to their peers consistent with that of the brand, this may not be the case. Those who preferred a brand rated users more highly than non-users on all dimensions. Overall, brands are perceived as having positive personalities.

4 - Basic Social Motives of Brand Identity Signaling

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Consumers choose brands in part to communicate to themselves and to others who they are (not). For instance by purchasing products from IKEA one might want to express being a young and modern person which stands for egalitarian Scandinavian values. But, by communicating these associations, they also make a clear statement who they donít want to be: e.g. being seen as lower class by purchasing furniture at Wal Mart. The ability of a brand to successfully communicate a consumer's self-identity is considered as a key factor of brand preference and positioning a brand against its competitors (see Malhotra 1988; Biel 1993 This paper extends existing research in self-brand connections (e.g., Escalas & Bettman 2003;

2005), identity signaling (Berger & Heath, 2007). It furthermore integrates recent social psychological research about basic motives such as distinctiveness, connectedness, meaning, continuity, efficacy, and self-esteem (e.g., Brewer 1992; Vignoles, Regalia, Manzi, Golledge & Scabini 2006). Those basic motives that have the strongest effect on brand identity signaling are identified through hierarchical linear modeling. In a further step, an experimental study provides additional empirical support that signaling one's brand identity is especially determined by the motives of self-esteem, distinctiveness and belonging. That is, a brand that successfully addresses these three motives is a preferred medium to communicate one's social self or identity. Managerial implications and further research will be discussed.

■ FD14

Finback

Advertising and Market Competition

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1 - Advertising and Market Structure: A Digital Video Recorder Field Experiment

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We study the impact of advertising on purchase behavior and market structure in over 30 US Consumer Packaged Good (CPG) categories. We use a field experiment wherein 1800 randomly assigned households from the IRI Behavior Scan panel receive a digital video recorder (DVR) - our treatment. The DVR technology enables households to fast-forward commercials and, accordingly, avoid advertising exposures. Hence, our experiment manipulates the amount of advertising seen between the treated and untreated groups of household. We observe household purchase behavior in both treated and untreated groups 12 months prior to the experiment and 12 months after the treatment, allowing us to exploit both the within and between group variation to assess the impact of the DVR treatment. The main objective is to explore the resulting DVR effect on purchase behavior between the treatment group and control group. We also study the interaction between the DVR treatment effect and the advertising intensity of the category and the brands within a category. As firms' pricing and marketing efforts are invariant to the treatment and control groups, we can directly observe whether and by how much DVR technology alters sales, market shares, concentration, and pricing and promotion sensitivity. In light of the rapid increase in U.S DVR penetration (currently at 17.2% according to Nielsen Media Research), the effect of the DVR treatment on the relative market shares of leading branded versus unbranded goods as well as new versus established products is of central concern to many leading CPG firms.

2 - Copycat Advertising and Strategic Theme Release

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Although the marketing literature is replete with studies on consumer response to advertising spending, relatively little work has been done on the supply-side of advertising, especially concerning the management of advertising concepts or themes. In this paper, the authors examine an incumbent's and an entrant's advertising strategies in terms of theme management in a standard two-period entry game. In period one, the incumbent decides which adverting theme to use from a given set of available themes, and then sets price accordingly. In period two, the entrant decides whether to copycat the incumbent's theme, or to seek one by itself, and then the two firms decide prices simultaneously. Consumer responses to these themes are private information to the incumbent ex ante, and are costly for entrant to obtain through concept testing. When the incumbent advertises the best theme in period one, it faces the trade-off of high revenue in period one due to a higher consumers' response to the theme, and lower revenue in period two due to competition if the entrant copycats the theme. On the other hand, when the incumbent advertises a theme to which consumers respond too low in period one, the entrant is prompted to seek a theme to which consumers have a high response, and as a result, intensifies the competition. At equilibrium we find that the entrant copycats the incumbent's themes with good consumer responses, or when it is costly to test-drive its own themes; the incumbent is willing to let the entrant copycat its themes in order to reduce future competition.

3 - Search Advertising

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Online advertising is growing while traditional media advertising is declining. If these trends continue, online advertising is poised to become the largest advertising medium. Within online advertising, search-based advertising is the largest category. We compare search advertising with traditional print and TV-based advertising, and identify some key institutional differences between them. Our focus is on the demand for search advertising by different types of advertisers: who is willing to pay for it, what they are willing to pay for it, and what quality of ad space they seek. We relate these questions to the nature of the keyword searched, and to the competitiveness of the product/service offers made by the advertiser.

4 - Feedback Stackelberg Equilibrium Strategies When the Private Labels Competes with the National Brand

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We consider a dynamic game where a retailer sells his high quality- private label along with the national one. We assume that each brand's goodwill stock depends positively on the advertising expenditures for that brand and negatively on the competing advertising level. Besides, each brand's demand is function of its goodwill stock and both retail prices. The latter assumption allows the brands' market potential to vary over time. We determine the optimal retail prices, wholesale price and advertising efforts as function of the goodwill stock of both brands. Besides, we run some simulations to evaluate the sensitivity of the pricing and advertising strategies as well as the different performances (namely the demands, profits and goodwill stocks) to the main model's parameters. The major contribution of the paper states that a higher vulnerability of both brands to the competing advertising effort increases the payoffs of both of them.

■ FD15

Granville

Strategy and Consumer Behavior

Chair: Wilfred Amaldoss, Duke University, Fuqua School of Business, Durham, NC, United States of America, wilfred.amaldoss@duke.edu

1 - Unbundling Music: Can Selling Individual Songs Reduce Competitive Intensity Among Music Producers?

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Music has been traditionally sold as a bundle of different songs in the form of a CD; recently, however, the rise of the internet has established a new structure where consumers have the option of buying whatever song(s) they like. This paper analyzes the effect of the unbundling music on prices in a competitive setting. We present a duopoly model where each of two producers produces songs of a specific genre. Each producer sells two types of songs, a high quality ("hit") song and a low quality ("regular") song. Consumers' heterogeneity is accounted for in two dimensions: their valuation for quality and their taste preference for different music genres. We compare the results of two settings: in the first setting, the producers can only sell their songs as a bundled CD, and in the second, they can sell individual songs. We find that depending on both the level of product differentiation and the difference on quality levels between the "hit" and "regular songs", unbundling music can either reduce competitive intensity and cause music prices to go up or increase competitive intensity and cause prices to go down. We also discuss the effect of unbundling music on producers' profits and market shares.

2 - Turf Wars: Brand Extension in Markets with Preference Based Segmentation

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A key strategic decision facing many firms is how broad or narrow should the scope of its brand and its associated product line be. This decision has direct implications on the markets and consumer segments a firm pursues, as well as whether and how it encroaches on its competitors' turfs. Across various product categories, we observe different firms adopting different strategies with respect to their brand and product line scope. For instance,

in automobiles, competing firms may both adopt a broad product line scope and strategically enter each other's turfs: e.g., Ford and Toyota compete against each other in almost all segments that they play in. In flat panel televisions, competing firms may adopt an asymmetric product line scope; e.g., while Panasonic has established itself as a leading brand for plasma TVs and Sharp has established itself as a leading brand for LCD TVs, Panasonic offers LCD TVs, but Sharp does not offer plasma TVs. While one firm chooses a narrow scope and is careful to not stake a claim in the competitor's turf, the other firm offers a broad scope and boldly chooses to carve out its share from the competitor's turf. In yet other product categories, firms may both adopt a narrow product line scope and refrain from encroaching on the competitor's turfs. In the presence of distinct market segments and the ability of firms to distinguish between their own customers and their rivals' customers, it may be possible for firms to go after the rivals' customers by broadening their product line scope and introducing new products that possess attributes valued by the rivals' customers. When this is the case, we investigate the question regarding whether a firm should encroach on its competitor's turf, and how broad should the scope of its product line be?

3 - Software Piracy in the Presence of Open Source Software

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Competition from Open Source Software and free software (OSS/FS) alternatives is causing proprietary software producers such as Microsoft to reevaluate product and pricing strategies. OSS/FS alternatives complicate an already complex information goods market plagued by piracy concerns. In this paper, we evaluate the impact of OSS/FS alternatives on software piracy. Using a mixture modeling approach, we show that the presence of open source has a differential impact on consumers who value MS Office differently. While consumers with low valuation for MS Office are likely to switch to OSS/FS, consumers with high valuations are unaffected by the presence of OSS/FS. Given that low value consumers are also significantly more likely to pirate, our results suggest the presence of OSS/FS alternatives benefits Microsoft by allowing them to price discriminate in a manner that removes low value consumers from the market for legal software.

4 - Strategic Implications of Reference Groups: An Experimental Investigation

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Reference groups influence product and brand evaluations, especially when the product is a publicly consumed luxury good. Marketers of luxury goods need to carefully balance two important social forces: the desire of leaders to distinguish themselves from followers and the countervailing desire of followers to assimilate with leaders. In this paper we examine the implications of these social forces for firm prices, product design and target consumer selection. We find that offering a limited edition may significantly increase sales and profits. In some cases reference group effects can even lead to a buying frenzy.

■ FD16

Galiano

Retail Store Environment

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1 - Shelf Layout Effects for Sustainable Products

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As companies increasingly realize the importance of corporate social responsibility, many of them attempt to stimulate the sales of sustainable products. In supermarkets this becomes evident from the rising availability of sustainable grocery products, such as fair trade and organic products. Although market shares for these products are not very high, these have been increasing steadily over the last few years. In order to stimulate the sales of sustainable products, it is important for retailers to understand the key drivers of these sales levels. This study investigates the extent to which sales depend on (1) presentation of the sustainable products within a category, using shelf descriptors such as the number of product facings and the position on the shelf relative to other (i.e., regular) products in the same category, (2) placement of the product category within the store, and (3) differences in the store trading areas. To examine this, we use a multi-level model that describes the effects of shelf layout on the sales of sustainable products. These effects are allowed to vary across product categories. The second level of the model includes socio-demographic variables of the store area. An important issue is that there may be endogeneity between sales and facings. The model is applied to a unique supermarket dataset that contains nine categories with sustainable products, such as coffee, chocolate and vegetables. Our results indicate that sales indeed depend on shelf layout. Moreover, the socio-demographic variables give interesting insights in the variation of effects across store trading areas. We also derive implications for shelf and store layout.

2 - Extreme Makeover: Financial and Perceptual Effects of a Remodeled Servicescape Over Time

Bram Foubert, Assistant Professor, Maastricht University, Department of Marketing, P.O. Box 616, Maastricht, 6200 MD, Netherlands, b.foubert@mw.unimaas.nl, Elisabeth Brüggen, Dwayne Gremler

Service providers, like Red Lobster and Washington Mutual, have spent millions of dollars to remodel their service establishments and create "physical evidence" of the provided service quality. However, despite the pervasiveness of remodeling projects and the vast investments involved, precious little research has addressed customer response to such store makeovers. In this study, we measure the effects over time of a major store remodeling on both subjective measures and objective performance metrics. To this end, our research uses survey and transaction data from a natural experiment in a fast-food chain that renewed several of its restaurants. We follow a three-stage approach to conduct our analyses, employing different statistical techniques. The first stage analyzes the short- and long-term impact of store remodeling on store revenue. In the second stage, we decompose the cross-time revenue effects into changes in store traffic and changes in average customer spending. Finally, in the third

stage, we assess the short- and long-term shifts in customers' cognitions, affect, and behavioral intentions. Our results indicate that i) revenues increase modestly in the short run but recur to the baseline in the long run; ii) any short-term revenue gains are driven by increases in average customer spending and not in store traffic; and iii) increases in average customer spending are supported by, mostly short-term, improvements in store image, desire to stay, repatronage intentions, perceived value, loyalty and word-of-mouth.

3 - Investigation of the Impact of Store Layout on Category Sales and Store Profitability

Yu Ma, University of Alberta, Business 4-30G, Edmonton, AB, T6G2R6, Canada, yu.ma@ualberta.ca, Minakshi Trivedi, Dinesh Gauri

Store layout is an important retailing decision that can help or hurt category sales and store profitability. We propose a model that simplifies retailers' layout decision by decomposing it into three components: aisle, zone, and shelf space allocation. The allocation of shelf space has been well studied in both academic and practitioner literature. However, the first two components are under-researched due to a simple reason. Aisle and zone allocations are often long term commitments, with substantial overhead costs involved for any changes. A typical retail layout thus changes only infrequently over time, making it difficult to study layout effects in a single store. In this paper, we attempt to discover the impact of store layout with cross sectional data instead of time series data. We collect data from a few stores belonging to the same chain, with similar store sizes and identical store price/promotion schedules. The selected stores, however, have different layout designs. We then model store specific category sales by explicitly considering the impact of store layout decisions. Our model incorporates endogeneity issues involved in store design. Thus, since the attractiveness of a specific shelf location is also impacted by the selection of products in nearby locations, we incorporate this characteristic of the demand system while constructing the moderating effect of a given location on sales. Our empirical findings quantify the impact of store design on revenue and profitability, and our method provides a framework that can help retailers design an optimal store layout and increase store performance, thereby offering significant managerial implications.

4 - Associations Between Purchases and In-store Behavior: An Extension of the Market Basket Analysis

Julien Schmitt, PhD Student, HEC School of Management, 1 Rue de la Liberation, Jouy-en-Josas, 78350, France, julien.schmitt@mailhec.net, Ganael Bascoul

The study of in-store consumer paths and actions seems a rather neglected subject in marketing research. Still, it raises some important questions about consumer behavior. The observation of shopper mobility behavior (i.e., which aisles he/she walks through, which products he/she selects, examines or places back in...) is crucial, as is the quantification of its impact on purchases. This paper presents an innovative PDA tool that enables the tracking of the consumer's moves and gestures: it time-stamps shopping path and every consumer's actions, and automatically integrates this large amount of data into a robust Database for statistical treatments. Using this new kind of information, we extend the classical Market Basket Analysis (MBA) by integrating in-store consumer behavior: we draw associations not only between cash-ticket purchases but also with in-store consumer moves and actions. We compare results of our new method with classical MBA results and show a significant improvement. This allows us to optimize store organization and cross-promotion strategy.

Saturday, 8:30am - 10:00am

■ SA01

Junior D

Social Networks and Marketing I

Chair: Paul Messinger, University of Alberta, School of Business, 3-20E Business Building, Edmonton, AB, T6R2A4, Canada, paulm@ualberta.ca

1 - A Viral Branching Model for Predicting the Spread of Electronic Word-of-mouth in Viral Marketing Campaigns

Ralf van der Lans, Assistant Professor, RSM Erasmus University, Burg. Oudlaan 50, Room T10-13, Rotterdam, 5042 ZP, Netherlands, rlans@rsm.nl, Gerrit van Bruggen, Jehoshua Eliashberg, Berend Wierenga

Viral marketing is a relatively new marketing communication tool that stimulates customers to spread electronic word-of-mouth by forwarding emails to other customers (e.g., friends, colleagues). Despite its popularity, there are no models that permit marketers to predict how many customers a viral marketing campaign will reach, and how they can influence this process by means of marketing actions such as sending seeding emails, bannering or advertising. In this paper we develop such a model using the theory of branching processes. The proposed Viral Branching Model allows customers to participate in a viral marketing campaign by 1) opening a seeding email of the company, 2) opening a viral email of a friend, and 3) responding to other marketing activities such as banners and offline advertising. The model parameters are estimated using individual level data that come available in large quantities already at the early stages of viral marketing campaigns. This allows marketers to quickly predict the effectiveness of the campaign, at the moment that the marketer is still able to influence its success. The Viral Branching Model, which is implemented in a spreadsheet program, is applied to an actual viral marketing campaign in which over 200,000 customers participated during a six-week period. The results show that the model is able to accurately predict the actual reach of the campaign already after one week. In addition, the model proves to be a valuable tool to evaluate alternative what-if scenarios.

2 - The Role of Spatial Proximity in the Adoption of a Digital Product

Christian Barrot, Assistant Professor, Christian-Albrechts-University at Kiel, Westring 425, 24118 Kiel, Germany, barrot@bwl.uni-kiel.de, Arvind Rangaswamy, Sönke Albers, Nazrul I. Shaikh

We adopt a model-based approach to assess whether and to what extent spatial proximities between members of a target population influence the adoption of digital products. Our data come from a company that sells software that enables car dealers in Germany to list used cars in an online market. As compared to other studies in the diffusion literature, our data are unique because we have the exact date and time of adoption for every adopter, as well as the geo-coded location data and descriptors for every potential member of the target population. Further, because the product was digital, it was available for adoption instantaneously by everyone in the target population, which ensured there were no frictions because of unavailability in any specific region. Thus, if we find that spatial effects influence the diffusion process, we can ascribe those effects to local contagion (due to communication, observation, or competitive pressures). We estimate an "Accelerated Failure Time" hazard model with time-varying covariates and shared frailty. We find that spatial proximity matters in a significant way in the adoption of the software, even after accounting for the effects of a number of covariates (observed heterogeneity) and for frailty (unobserved heterogeneity) on the times to adoption. Specifically, adopters who were located closer to non-adopters had a significant effect on hastening adoption time of the non-adopters. Our results suggest that although Internet and other communication technologies may have greatly diminished the role of distance in the availability of information about a product as well as in the availability of the product itself (for digital products), they have not eliminated the importance of local contagion or trustworthy personal information.

3 - Deriving Economic Value from Social Commerce Networks

Andrew Stephen, PhD Candidate, Columbia University, 3022 Broadway, Uris 311, New York, NY, 10027, United States of America, AStephen05@gsb.columbia.edu, Olivier Toubia

Social commerce and social shopping websites are growing in number and gaining in popularity among consumers. Broadly defined, social commerce and social shopping concepts allow consumers to participate in Internet-based retailing and to interact with each other in the process, with social commerce involving social interactions between sellers and social shopping involving social interactions between buyers. This paper examines the economic value implications of social interactions between sellers in a large social commerce Internet-based marketplace where the interactions are in the form of social network ties (i.e., sellers' shops are nodes and directed links between shops are network ties). Specifically, the role played by a social network of sellers in creating value and generating earnings is examined at the aggregate marketplace level and at the shop level. It is shown that network ties between social commerce sellers add value in terms of increasing economic performance when they make these sellers' shops more accessible to buyers who use the network to browse between shops. This effect holds at the marketplace level and at the shop level, and shows how social networks in online retailing domains can enhance economic outcomes for marketplace-owning firms and sellers.

4 - Consumer Identification with Avatars: Business Applications and Social Computing in Immersive 3D Virtual Worlds

Paul Messinger, University of Alberta, School of Business, 3-20E Business Building, Edmonton, AB, T6R2A4, Canada, paulm@ualberta.ca, Mike Bone, Eleni Stroulia, Kelly Lyons, Stephen Perelgut, Kristen Smirnov, Annie Niu

Large concentrations of computer users in massive multiplayer online cooperative role-playing games, where thousands of people can interact simultaneously within the same three-dimensional virtual world, represents a large population of "shadow" consumers who can be analyzed, segmented, and targeted. This research considers the determinants of whether individuals identify with their avatars and the effects of such identification in terms of whether "in-world" preferences and behavior are predictive of real-world preferences and behavioral intentions concerning such things as the satisfaction with and choice of brands, stores, web-sites, and service providers. In addition, this research studies the relationship between the various technology enablers and individuals' social, commercial, and cultural activities that arise in this environment. The research is based on a survey of participants in Second Life, which is becoming a premier example of a 3D virtual world where a large population of consumers' online personae, called avatars, can design objects, write code to manipulate the environment, trade objects and land for money, participate in group activities, work, explore, play, and interact socially. In addition, the Second Life environment provides a window into the business and social potentialities of future 3-D Internet commerce.

■ SA02

Junior C

Price Rigidity: Latest Theoretical and Empirical Advances in Marketing

Chair: Sourav Ray, McMaster University, DeGroote School of Business, 1280 Main Street, Hamilton, 1280 Main Street W., Hamilton, ON, L8S-4M4, Canada, sray@mcmaster.ca

1 - Price Adjustments in Technology-intensive Markets: Reversed Asymmetry

Charles Wood, University of Notre Dame, cwood1@nd.edu, Sourav Ray, Paul Messinger

In this research we investigate the price adjustment patterns in technology-intensive markets. In general, market leaders experience a tension between leveraging their market leadership to extract higher margins (hence higher prices) and leveraging their supposed economies of scale to sustain a greater market share (hence lower prices). Ceteris paribus, price adjustment patterns of such market leaders should be neutral to asymmetric adjustment patterns - either positive (greater likelihood of price increases vis-á-vis price decreases) or negative (greater likelihood of price decreases vis-á-vis price increases). Technology intensive (or high-tech) markets, introduce an additional layer of complexity. Most market leader in such high tech markets maintain a pipeline of products that are introduced in sequence. Lifecycles of such products are often very short - of the order of a few months even. The profitability of the new generation products on the other hand, are critically dependent on the reputation stock built up by the last generation. Given the possible price-quality tradeoff at the consumer end, such market leaders would be loathe to subject this last generation to deep discounts, rather preferring to discontinue or spin off the line itself. On the other hand, as these technology intensive products

become increasingly obsolete and face competitive pressure from fringe firms, it may be important for the market leader to protect its market share even at the cost of lower prices (perhaps till the new lines are introduced). The implications for price adjustments over time are therefore, not obvious in such markets. We examine 97,326 prices and 7,486 price changes for 187 high-tech products from 26 vendors over 283 days. The main findings suggest that for market leading firms, large price changes are not only more common than for the non-market leaders, but there is a greater negative asymmetry in terms of the price adjustments over time - with larger price decreases being more prominent that large price increases.

2 - Price Rigidity as Retail Strategy in Grocery Supermarkets
Sourav Ray, McMaster University, DeGroote School of Business, 1280 Main Street, Hamilton, 1280 Main Street W., Hamilton, ON, L8S-4M4, Canada, sray@mcmaster.ca

Price rigidity - the propensity of prices to remain unchanged, is an area of obvious interest to consumers, retailers and policy makers. In this research I investigate price rigidity in the grocery supermarket sector. Flexibility (as opposed to rigidity) in transaction prices is often seen as a key to profitability for retailers in increasingly competitive sectors like supermarkets. Yet, such flexibility is not costless. In addition to the physical and managerial costs associated with changing prices, frequent changes distort the price expectations, and may negatively affect the retailer's ability to support profit making margins later. To the extent searching for prices is costly; consumers are also likely to perceive some value in price rigidity. Using data from a natural quasi-experiment, I show how different retailers resolve this tension by maintaining a rigidity spectrum consistent with their strategic positioning. The data is collected manually over one year, consisting of prices of more than one hundred products, across three closely located supermarkets in a large metropolis.

3 - Costly Price Adjustment in a Channel of Distribution
Mark E. Bergen, Carolyn I. Anderson Professor of Business Education Excellence, Carlson School of Management, University of Minnesota, Rm 3-150, 321 19th Ave S, Minneapolis, MN, 55455, United States of America, mbergen@umn.edu, Sourav Ray

Recent literature in economics suggests that it can be costly for firms to change prices. In this paper we explore the implications of these adjustment costs for pricing in a channel of distribution. We find that these can lead to asymmetric price adjustment by upstream channel members. We also find that the costs of price adjustment, and where they are located in the channel, have an impact on the pass-through patterns of wholesalers and distributors. As such, it has direct effects on the degree of price rigidity that will be observed in a market.

■ SA03

Grand D

Social and Cause Marketing

Chair: Sihem Taboubi, Professor, HEC Montreal, 3000 Chemin de la Côte Sainte Catherine, Montreal, HT 2A7, Canada, sihem.taboubi@hec.ca

1 - The Multidimensionality of Fit from a Cause-related Marketing Perspective
David Bednall, Associate Professor, Deakin University, 221 Burwood Highway, Burwood, VI, 3122, Australia, david.bednall@deakin.edu.au, Harmen Oppewal, Allison Ringer

Several studies have shown the fit between a brand and cause to influence consumer evaluation of CRM campaigns but the literature has not provided a consistent conceptualisation of fit. This paper proposes that fit is dynamic and multidimensional, comprising behavioural, cognitive and emotional perspectives. It further proposes that fit influences consumer attitudes toward the CRM campaign, together with attitudinal and motivational factors. Hypotheses based on these propositions are tested in a scenario experiment in which participants receive product-cause combinations representing different levels of fit. Findings suggest the perception of fit does influence the evaluation of CRM campaigns but not always in favour of the congruent campaign or those containing the higher levels of fit. The emotional dimension of fit appears to have little effect on the evaluation of the CRM campaign. The findings suggest that an incongruent campaign can be effective if the potential consumer has an affinity either through loyalty or past experience with the brand or the charity but that issues that are perceived as a lifestyle choice may be ineffective irrespective of the aligned forprofit organisation.

2 - Marketing Better Driving Through Communication and Penalties
Paul Burke, Lecturer, University of Technology, Sydney (UTS), P.O. Box 123, Broadway, NSW, NS, 2007, Australia, paul.burke@uts.edu.au, Luke Greenacre

The overrepresentation of young, less experienced drivers in fatal and major motor-vehicle accidents is a worldwide concern. In most countries, public policy has attempted to market and enforce better driving for this demographic by using two approaches: 1) communicating the physical consequences of motor-vehicle accidents; and 2) penalising behaviours that are likely to lead to an accident. We examine the perceptions of driving risk and consequences among young, less experienced drivers and consider how theories of risk and uncertainty can better inform marketing communication strategies for this and other demographic groups. We also examine the perceptions about possible changes in laws prohibiting certain "risky" behaviours and compare these across a number of driving groups. This empirical research offers new insights into how marketers and public policy makers can approach driver management to better influence the behaviour of target groups. This is achieved by offering a mechanism to understand how and why drivers mismanage their risk, and how this mismanagement can be overcome. This research also offers insight into how marketers and public policy makers in other areas where the prevention of risk-taking behaviour is an objective.

3 - An Investigation of Factors Affecting Fair Trade Consumption
Sihem Taboubi, Professor, HEC Montreal, 3000 Chemin de la Côte Sainte catherine, Montreal, HT 2A7, Canada, sihem.taboubi@hec.ca, Denis Laroque, Walid Daher

This study examines simultaneously the effect of personal, contextual, and product-related factors on purchasing behaviour of fair-trade products. The results show that people who perceive that their individual actions can make a difference and those who have positive attitudes toward environmentally friendly products are more likely to buy fair-trade products. People who perceive that these products are more expensive and those with larger families are less likely to be buyers. Findings provide marketing managers of fair-trade organizations valuable information on the characteristics of buyers. This can help them identify target segments, products attributes, and arguments for advertising and promotional campaigns.

■ SA04

Port Alberni

Investigating Consumer Response to Promotions

Chair: Sungchul Choi, Assistant Professor, University of Northern British Columbia, 3333 University Way, Prince George, BC, V2N 4Z9, Canada, schoi@unbc.ca

1 - The Effect of Monetary Format on the Mental Accounting and Consumption of Windfalls
Tim Silk, Assistant Professor of Marketing, University of British Columbia, 2053 Main Mall, Vancouver, BC, V6T 1Z2, Canada, tim.silk@sauder.ubc.ca, Laura Smarandescu, Scott Swain

Alternative monetary formats such as gift cards are becoming increasingly popular as a means of distributing funds to consumers. Retail Analysts estimate that approximately 75% of American adults purchased or received at least one gift card in 2006, generating revenues in excess of $80 billion (American Express 2006; National Retail Federation 2006; Tower Group 2006). This popularity is accompanied by a shift in purchase responsibility from gift givers to gift recipients, with possible implications for product assortment, pricing, and aggregate spending. Despite the magnitude and growth of the gift card industry, very little is known about how alternative monetary formats such as gift cards influence consumer purchase behavior. This research examines how the monetary format of a windfall (i.e., cash versus gift card) influences consumers' budgeting and spending decisions. Results from a field study and two experiments provide evidence that the monetary format of a windfall influences the extent to which it is absorbed by other mental accounts. Windfalls received in a cash format are partially absorbed by existing accounts and debited from these accounts when spent, resulting in underconsumption of the windfall. In contrast, gift card windfalls are maintained as distinct windfall accounts, resulting in greater incremental consumption. Findings reveal that consumers are more likely to spend greater amounts, violate their budgets, and accept higher prices when shopping with gift cards versus cash. Our findings are relevant to marketing managers as well as public policy officials who wish to better understand how monetary format impacts spending patterns and consumer welfare.

2 - All Multi-Item Promotion Frames are Not Created Equal

Sonja Spuerkmann, Seminar for Marketing and Marketing Research / University of Cologne, Albertus-Magnus Platz 1, Cologne, nr, 50923, Germany, spuerkmann@wiso.uni-koeln.de, Karen Gedenk, Michael Knaf

Multi-item promotions are commonly used by many manufacturers and retailers. These pro-motions grant consumers a discount when they buy a certain number of units from a range of items of one product and one brand. Multi-item promotions can vary in their framing, i. e. in the presentation of the offer to the consumer. For instance, a multi-item promotion can be framed as "Buy 2, Get One Free", "3 for 2" or "Buy 3, Save X %". These frames communi-cate different semantic cues to the consumer, and can thus have an impact on deal evaluation and purchase behavior. While the effects of promotional framing have been studied exten-sively for other price-promotion instruments, like temporary price reductions, little is known about framing effects for multi-item promotions. In this study, we systematically compare six different frames for multi-item promotions. They differ with respect to five behavioral effects that might explain variance in promotion impact. For example, we expect monetary frames (e. g. 3 for X Ă) to be less effective than non-monetary frames (e. g. 3 for 2), since a discount is more likely to be integrated with the purchase price than extra product. In a survey-based experiment, we compare the impact of these six frames on deal evaluation, brand choice and purchase quantity. We generate insights not only on six different frames, but also on five underlying behavioral effects which might ex-plain differences in their effectiveness.

3 - Ambiguity and "Scratch and Save (SAS)" Promotions

Sungchul Choi, Assistant Professor, University of Northern British Columbia, 3333 University Way, Prince George, BC, V2N 4Z9, Canada, schoi@unbc.ca, Moontae Kim, Mike Stanyer

The main purpose of this paper is to examine consumers' responses to "Scratch and Save" (SAS) type promotions, which are increasingly applied to promote stores' sales by stimulating short term purchase behavior. Due to SAS promotions' "gambling" characteristics, they offer the possibility of high savings levels, however, they also confront the consumer with uncertainty about the value of the discount at the point of purchase. Particular attention is paid to the depth of the claimed savings, and its effect on regular price believability and consumer's expected savings, as well as perceived value and shopping intentions. We observe that the depth of advertised SAS promotions does not affect consumer believability of the regular price in SAS advertisements. In addition, we suggest the applicability of the disjunction effect by showing that the minimum claimed saving information enhances the level of savings expectation. We also report the positive impact of expected savings on offer value and, in turn, shopping intentions.

■ SA05

Grand C

New Product Design and the Design Process

Chair: Praveen Kopalle, Associate Professor, Dartmouth College, 100 Tuck Hall, Hanover, NH, 03755, United States of America, kopalle@dartmouth.edu

1 - Structuring Product Development Pipelines for Better Information Utilization

Tao "Alex" Wu, Assistant Professor of Marketing, California State University at Long Beach, 1250 N. Bellflower Blvd., Marketing, Long Beach, CA, 90840, United States of America, twu5@csulb.edu

Various product development pipelines implemented by organizations can be categorized into two types. The first type is funnel in which an organization implements a number of alternative product development approaches but gradually removes some of them as it approaches the end of a development process. The second type is tunnel in which an organization is committed to a number of different approaches from the beginning to the end of the development process. Although these two pipeline designs (funnel and tunnel) have different ramifications on an organization"subsequent resource allocation, there hasnít been much theoretical research on the deterministic factors of the funnel vs. tunnel choice problem. This study is commenced to provide a theoretical framework on the aforementioned matter. From the organizational learning perspective, the study explains that whether the funnel or the tunnel pipeline design is appropriate for developing a new product depends on the types of environmental information that an organization utilizes. It conceptualizes that a funnel pipeline is more effective when an organization is dealing with fast changing real-time information and that a tunnel pipeline is more effective when an organization is dealing with equivocal information.

2 - Developer Learning Dynamics in Open Source Software Projects: A Hidden Markov Modeling Approach

Nara Youn, University of Washington, Michael G. Foster School of Business, Seattle, WA, 98195-3200, United States of America, nyoun@u.washington.edu, Yong Tan, Param Singh

In this study we examine whether developers learn from their experiences and from interactions with peers in Open Source Software (OSS) projects. We propose a Hidden Markov Model (HMM) that allows us to investigate: (1) the extent to which OSS developers actually learn from their own experiences and from interactions with peers; (2) whether a developer's ability to learn from these activities vary as she evolves/learns over time; and (3) the extent to which developer learning persists over time. We empirically calibrate the model using data from OSS developers' collaboration network. Using the HMM, we identify three latent learning states (high, medium, and low) and estimate the marginal impact of learning activities on developer movement between these states. Our findings reveal different patterns of learning in different learning states. Peer interactions appear to be the most important source of learning for developers across the three states.

3 - Identifying and Using Emergent Consumers in Developing Radical Innovations

Praveen Kopalle, Associate Professor, Dartmouth College, 100 Tuck Hall, Hanover, NH, 03755, United States of America, kopalle@dartmouth.edu, Tom Novak, Donna Hoffman

Though marketers are well aware that typical consumers have difficulty estimating the usefulness of really new products (Hoeffler 2003), little research has focused on which consumers to use in the new product development process, particularly in developing radical innovations in the consumer goods industry. In this paper, we develop a methodology to identify "emergent consumers," individuals that are able to synergistically apply intuition and judgment to improve product concepts that mainstream consumers will find more appealing and useful relative to ones that are developed by mainstream or even innovative consumers. Our approach involves a comprehensive calibration and validation phase of scale development and construct measurement, along with four studies for concept development and market reaction that show that the product concept developed by the emergent group is found most appealing by mainstream consumers. Emergent consumers can aid in the successful development of radical new product concepts, improve the chances of success in the marketplace for such innovations, and help predict their acceptance by mainstream consumers.

■ SA06

Grand B

Structural Equation Modeling

Chair: Horst Treiblmaier, Associate Professor, Vienna University of Economics and Business Administration, Augasse 2-6, Vienna, 1090, Austria, horst.treiblmaier@wu-wien.ac.at

1 - More for Less? A Comparison of Single-Item and Multi-Item Measures

Petra Wilczynski, IMM / Munich School of Management, Kaulbachstr. 45, Munich, 80539, Germany, wilczynski@bwl.lmu.de, Marko Sarstedt

Multi-item measures of theoretical constructs have been the norm in marketing research for over 20 years. Even for simple constructs, long scales are designed with the objective of achieving a high reliability and validity. Even though single-items have some preliminary practical advantages, their use is often seen as a fatal error, because they are believed to be unreliable and invalid. Recent studies in the field of marketing research as well as social sciences show that multi-item measures do not necessarily outperform single-item measures. Despite these promising approaches, these studies concentrated either on reliability or validity analysis, whereas we argue that only a comprehensive evaluation of all statistical criteria allows a concluding comparison of single- and multi-item measures. Consequently, we evaluate the performance of single-items regarding both criteria. Applying Partial Least Squares path modeling, the present study compares these measures in a methodological context that mirrors actual applications in the consumer research community more accurately. Using well-known operationalizations of customer satisfaction and loyalty, the analysis results reveal that single-items achieve similar reliability estimates as multi-item measures. With regard to criterion validity, multi-items con-

tinuously show marginally better results than the single-item measures. So, despite slightly inferior performance, single-items are not inherently unreliable or invalid and can be applicable in special situations, e.g. when response rates are expected to be low and cost considerations have to be taken into account. Thus, our results are important to both researchers and practioners as they shed new light on the ongoing discussion in this research field.

2 - Response-Based Clustering in PLS: A Comparison of FIMIX-PLS with A-Priori and Post-Hoc Segmentation

Marko Sarstedt, Munich School of Management, Institute for Market-based Management, Kaulbachstr. 45, Munich, 80539, Germany, sarstedt@bwl.uni-muenchen.de

The problem of unobserved heterogeneity in Partial Least Squares (PLS) path modeling has recently attracted considerable attention in methodological research, both in the field of marketing as well as management information systems. Newly proposed approaches utilize, for example, finite mixture, fuzzy regression or genetic algorithm concepts, and differ substantially in terms of the covered types of heterogeneity, the distributional assumptions and the interpretability of the resulting segments. So far, the primary approach to segment data in a PLS framework is Finite Mixture PLS (FIMIX-PLS), which allows model parameters to be estimated and affiliations of observations to be segmented simultaneously. Answering the call of previous studies, this research contributes to the existing literature by evaluating the effectiveness of FIMIX-PLS in a complex model set-up with formative indicators. The procedure's performance is compared with that of several segmentation approaches which make use of a priori information or k-means cluster analysis in respect of both manifest and latent variable scores. Methodological considerations that are relevant to the comparison of the different models include the assessment of the reliability of items and constructs as well as the determination of model adequacy. The analysis reveals that through the application of FIMIX-PLS, the overall explanatory power of the structural model could be increased. However, future research is necessary as results suggest a reduced discriminant validity of the constructs in one segment.

3 - Formative Measurement in Social Science Research: A Historical Review and Up to Date Issues

Horst Treiblmaier, Associate Professor, Vienna University of Economics and Business Administration, Augasse 2-6, Vienna, 1090, Austria, horst.treiblmaier@wu-wien.ac.at, Peter Bentler, Patrick Mair

In 2001, an article from Diamantopoulos and Winklhofer, which was published in the Journal of Marketing Research, has renewed the interest in using formative instead of reflective measurement models. Other authors have revealed that frequently constructs have been misspecified, i.e. that formative measurement items are being treated as reflective, which affects Type I and Type II errors by altering path significance (Jarvis et al. 2003; Petter et al. 2007). This ongoing discussion has sparked interest in other communities, such as Information Systems and Management Science on how to correctly measure latent properties. In our presentation, we give a historical review and illustrate how the idea of formative measurement has developed during recent decades. Especially psychometricians have already discussed many of the prevailing problems. Additionally, we give a state of the art overview and present current criticism. Difficulties in formative measurement have caused several authors (e.g. Howell, Breivik and Wilcox, 2007) to opt for reflective measurement. However, their suggestions have aroused criticism (e.g. Bagozzi 2007; Bollen 2007). We not only compare the various lines of argumentation, but also present an innovative concept to overcome the most significant problem of correctly identifying a formative construct. Furthermore, we highlight some weaknesses in current usage of reflective measurement, especially pertaining to reliability and content validity. The results will give researchers an overview on the differences between formative and reflective measurement and will allow them to correctly choose their measurement model.

■ SA07

Grand A

Structural Econometric Models of Consumer Choice

Chair: Subramanian Balachander, Purdue University, Krannert School of Management, West Lafayette, IN, 47907, United States of America, sbalacha@mgmt.purdue.edu

1 - Dynamics of Consumer Adoption Decisions of Financial Innovation: the ATM Card Case in Italy

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Demand side technology adoption has long been a research topic in both the economics literature and the marketing literature. One interesting finding in previous research is that usage of new technologies by the elderly has always been much lower than within other age groups. General resistance towards technology typical of elderly people and specific difficulties in learning and using new technologies are offered as reasons behind this stylized fact. These reasons translate to a high fixed adoption cost of the elderly. However, one important fact is neglected in the previous literature: the elderly have a much shorter life horizon left than the young - their total expected discounted benefits from adoption would be much smaller. Only a finite horizon dynamic model would properly capture this factor. Unfortunately, to my best knowledge, all the previous papers empirically studying consumers' technology adoption decisions either use a static choice model or an infinite horizon dynamic model. A myopic static model tends to underestimate consumers' initial adoption costs, while an infinite horizon model would overestimate old people's initial adoption costs by neglecting their short life horizons. By using a micro-level dataset provide by the Bank of Italy, I aim to identify factors influencing Italian consumers' ATM card adoption decisions in a finite horizon dynamic model. To my best knowledge, this is the first paper to use a dynamic programming model to structurally analyze consumers' adoption decisions of a financial innovation. In addition, I use a money demand model to precisely measure cost savings from adopting an ATM card, while in the durable goods literature, a composite quality index is usually assumed to bring consumers all the utility/benefits.

2 - A Simulated Maximum Likelihood Estimator for the Random Coefficient Logit Model Using Aggregate Data

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We propose a Simulated Maximum Likelihood estimation method for the random coefficient logit model using aggregate data, accounting for heterogeneity and endogeneity. Our method can be viewed as a generalization of Villas-Boas and Winer (1999) and is closely related to the "control function" approach of Petrin and Train (2004). We show that the proposed method is more efficient than the widely used Berry-Levinsohn-Pakes (BLP 1995) method in simulated data sets and in scanner data. In particular, the proposed method is markedly better than the BLP method in recovery of heterogeneity parameters, which is often the main goal of inference in marketing. Further methodological advantages of the proposed method include: 1) it typically requires fewer instrumental variables than the BLP method; 2) it provides endogeneity test statistics as a by-product; 3) it directly provides the direction of endogeneity bias; and 4) it can be extended to incorporate Markov regime-switching dynamics in parameters and is open to other extensions based on Maximum Likelihood. On the other hand, the benefits of the proposed approach are achieved by assuming normality of the unobserved demand attributes, in contrast with the BLP method which does not make any distributional assumptions. The assumptions we make impose constraints on the types of pricing behaviors that are accommodated, although we find in simulations that demand estimates are fairly robust to violations of these assumptions.

3 - Dynamic Brand and Quantity Choice with a Hazard Model of Promotion Expectation

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Forward-looking behavior of consumers is important for modeling consumer response to promotions of frequently purchased consumer products that are branded, storable and subject to frequent promotions. In previous studies, consumers' promotion expectations have been modeled using a first-order Markov process. However, theoretical analyses of the timing of promotions suggest that price promotions occur in cycles whose periodicity is stochastic. Therefore, in contrast to previous studies, we utilize a Proportional Hazard model (PHM) to characterize consumers' expectation of future promotion. Consumers are assumed to incorporate their expectations consistent with this model into their dynamic brand and quantity choices. Using both simulated data and scanner panel data from the canned tuna category, we first show that promotion elasticities are overestimated by a structural model that assumes only a first-order Markov promotion expectation. Second, the estimation results using scanner panel data indicate that our model fits better and produces sensible coefficient estimates. Third, we decompose promotion elasticities and find 20% of the elasticity is due to purchase incidence, 11% to brand switching and 69% to stockpiling. Fourth, we predict brand sales for a hypothetical increase in promotion frequency assuming that consumers learn about this policy change in a Bayesian fashion. The results suggest that a dynamic model

with first-order Markov promotion expectation significantly overestimates the effectiveness of a policy increase in promotion frequency in comparison to our model. The sales increase is much greater with immediate updates about promotion frequency than with Bayesian updates.

■ SA08

Port Hardy

Consumer Perception: Packaging, Stimuli Order, and Haptics

Chair: Monica Hodis, Southern Illinois University, 1025 Lincoln Drive, Mailcode 4629, 62901, IL, 62901, United States of America, mahodis@cba.siu.edu

1 - Subject Responses to Stimuli Order: A Comparison of Four Orders Using Five Criteria

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For researchers interested in consumer perceptions of stimuli, one important issue is whether multiple stimuli are used, so relative perceptions are obtained. Relative measures are important to employ and understand for reasons such as 1) perceptions of stimuli are sometimes unclear in absence of comparisons, 2) different comparisons may encourage different perceptions of a focal stimulus, and 3) in applied contexts, managerial objectives often stem from relative perceptions, for example a brand's relative perceived advantage. One issue central to working with relative stimuli measures is stimuli ordering. To deal with potential order effects in experimental studies, the most commonly used method for developing stimuli orders is to provide balance across stimuli order. Randomization of stimuli is also common and is based on the notion that randomly ordered stimuli will provide balance. However, while balance guards against some issues, such as a primacy effect, balance fails to guard against other issues, such as fatigue. Many studies involve obtaining multiple judgments from consumers. Thus, balance may be achieved within or across subjects, and balance at both levels may unneeded. Therefore, in this study we investigate whether providing balance within subjects is superior to other stimulus orders. Four stimulus orders were tested within subjects; all balanced across subjects. Stimulus orders were tested in a similarity judgment task and were evaluated based on five criteria. Our findings reveal that a balanced order performs no better than a supposedly debunked stimulus order proposed over 100 years ago, and performed worse than a simultaneous ordering that has been proposed in psychological research.

2 - Context Effects for Package Size Comparisons

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Raghubir and Krishna (1999) and Folkes and Matta (2005) find that package shapes that are geometrically simple in form, such as cylinders, appear smaller than packages that are geometrically complex, such as bottles with distinct necks, shoulders, body and feet. Conversely, our research shows that geometrically complex forms appear smaller than simple forms. What can account for this reversal? We propose that it is due to presentation format, or the background context in which consumers make size comparisons. Both R&K and F&M report presenting their package stimuli to subjects on a pair-wise basis. We on the other hand present packages in the context of larger numbers of packages, 20 in one case and 16 in another. We speculate that this reversal is a function of the number of packages being evaluated at any one time. The greater the number, the harder the cognitive task, the more superficial the perusal of the individual package forms, the more heuristic the evaluation process. For example, our results show that when two packages of equal height are presented, subjects report comparing the widest width of the respective package to determine which is greater; since more complex forms by definition have a more varied side profile than simpler forms, the more complex form will naturally provide the greater maximum width. When packages are evaluated in greater numbers, our results show that subjects abandon a direct comparison of dimensions, and will base their comparisons on shape itself, a heuristic that makes the simpler forms appear larger. Managerial implications are discussed.

3 - Can Consumers Feel Vicariously? A Comparison Between Haptic Information and Online Video Reviews

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Recent evidence shows that some consumers have a higher need for touch (NFT) than others (Citrin et al. 2003, Peck and Childers 2003b) which negatively impacts their online purchases. Even for products behind display cases, the inability to touch decreases confidence in product evaluations and increases customer frustration (Peck and Childers 2003a). Building on the limited research on haptics in marketing, we hypothesize that high NFT consumers (compared to low NFT consumers) have a higher likelihood of purchase, perceived value and confidence, and lower perceived risk whenever product touch is possible. Previous research investigated whether written or pictorial product information can increase consumer confidence before purchase when touch is not possible. Our study extends this line of thinking by investigating the extent to which video product reviews can substitute for the opportunity to touch (i.e. direct experience) under different levels of NFT. We use an experimental design with three stimulus conditions: (1) a website containing product information and pictures, (2) a website containing product information, pictures and a video review, and (3) a website with the product information and pictures, with the added opportunity to touch the product. Given inter-product differences, we focus on two products: one that elicits a high desire to touch prior to purchase (e.g. PDAs) and one that elicits a low desire to touch (e.g. flash drives). We hypothesize that high NFT consumers are most likely to buy when touch is possible (condition 3), and that they are more likely to buy in condition 2 than condition 1. Low-NFT consumers are not expected to differ between conditions 2 and 3 for both product categories. The results have important implications for online retailers.

■ SA09

Junior B

Customer Lifetime Value

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1 - Payment Card Rewards Programs and Consumer Payment Choice

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Credit and debit card payments have been growing rapidly. To continue the growth, payment card networks keep adding new merchants to their networks. But adding new cardholders is becoming more difficult because most consumers in the United States already have both credit and debit cards. To increase their market shares and card usage by existing customers, many U.S. card issuers have been offering attractive rewards/loyalty programs. Since launching the new rewards programs, many issuers have seen increases in spending on both credit and debit cards. However, we know little about the sources of these increases. It is unlikely that rewards card users simply increase their spending on their credit and debit cards without changing their spending habits involving other payment methods. What payment methods are replaced by rewards credit and debit cards? To what extent do rewards card transactions replace other forms of payment transactions? How do substitution patterns vary across consumers' characteristics and across retail types? We seek to answer these questions by using a unique consumer survey data set. This data set provides not only information on individual consumers' most preferred payment method across retail types, but also detailed measures of individual perceptions toward each payment method in terms of speed, convenience, safety, etc. Moreover, it provides information on consumers' perception of which payment methods are accepted across retail types. This allows us to control for unobserved consumer heterogeneity and the variation of choice set when estimating a consumer payment choice model. Our results show that the effects of removing rewards from credit and debit cards on consumer payment choice are quite small.

2 - "I'm Here, but Maybe not for Long": Using Complaints to Predict and Value Customers

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The extant literature has related Customer Lifetime Value [CLV] to the customer's purchase history, but has paid little attention to other non-transactional customer-firm interactions like complaints. In this study, we relate actual customer complaints and the firm's response to these complaints to customer defection and future purchasing. A novel aspect of the analysis is that we use actual purchase data concerning individual customers of a major U.S. catalog retailer, and hence we consider realized behavior rather than behavioral intentions. We revisit some of the claims relating to complaints and complaint handling from the service recovery literature. In so doing, we make an attempt to integrate complaints (in addition to purchases) into customer base analysis.

3 - A Generalization of Customer Lifetime Value Models Through Customer Dynamics

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In this study we develop a stochastic model for customer lifetime value (CLV) measurement. Previous CLV measurement approaches either assume permanent (i.e. lost-for-good, LFG) or temporary (always-a-share, AAS) defection. Our model accommodates both processes simultaneously and allows consumers to become temporarily or permanently inactive through the incorporation of customer dynamics. We calculate customer profitability across time as the product of purchase frequency and the monetary value of customer purchases. We model customer dynamics in both variables through a semi-hidden Markov model (SHMM) that allows customers to evolve across time among a number of different states. One of these states is inactivity. The remaining states correspond to a range of purchase activity levels, which cannot be observed and therefore are latent. These states determine the number of purchases made by customers and their monetary value. We model purchase frequency using truncated negative binomial distributions and monetary value using gamma-gamma distributions (Fader et al JMR November 2005), thus incorporating customer heterogeneity in both variables. We do not restrict transition probabilities. Therefore inactivity can be either an absorbing state or not, i.e., permanent or temporary. We compare our model to others that are purely LFG and AAS approaches and do not account for customer dynamics. We have applied our SHMM to the customer base of a retail outlet. Our first results show that our model forecasts more accurately than others that are restricted by assumptions about the temporariness of defection processes and ignore customer evolution across time.

■ SA10

Junior A

Channel Management

Chair: Kersi D. Antia, Assistant Professor, School of Business, University of Wisconsin-Madison, 3104 Grainger Hall, 975 University Avenue, Madison, WI, 53706, Canada, kantia@bus.wisc.edu

1 - Channel Coordination and Manufacturer Competition

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Consider a retailing store that sells multiple products produced by different manufacturers. In traditional retailer-managed retail (RMR) system, the retailer makes pricing and inventory decisions for each brand. This system causes standard channel coordination issues such as double-marginalization. More recently, manufacturer-managed retail (MMR) systems have begun to be adopted in countries such as China and Japan, where manufacturers are responsible for setting retail prices and managing own inventories. In these systems sales revenue is then split between the retailer and manufacturers based on a revenue sharing contract. Such systems help to solve some of the channel coordination issues; however, they may lead to more intensive manufacturer competition within the retailing store. We study the impact of switching from RMR to MMR on store prices and sales using a dataset provided by a major Chinese department store, who switched one of its category products from a RMR to a MMR. We find that, after switching to MMR, the overall retail price in the category decreases by 11%, which causes sales to increase by 12% on average. Further, brands with lower brand equity, more elastic demand and larger demand uncertainty are found to be more likely to cut price more deeply. On top of the price effect, we find that sales increase by another 12%, implying the existence of other non-price factors that help stimulating sales under MMR. However, we also observe a reduction in non-price promotional supports after the management change.

2 - Channel Coordination Through Royalty Payments in a (Non-)Price Double Moral Hazard Environment

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The problem of coordinating a distribution channel in a double moral hazard environment remains still unsolved in many real-life situations. Typically, manufacturer and retailer consider sheer wholesale pricing to control the opponent's behavior. Furthermore, the problem is rarely investigated in general theory (Jeuland/Shugan 1983, Rey/Tirole 1986). We show in a simple game- and bargaining-theoretic model that members in a two-level distribution channel require a four-instrument set of royalty payments (Rey/Vergé 2005) to create incentives for efficient target setting (retail pricing, promotional activity by both parties): Wholesale pricing, revenue sharing and cooperative promotion participation payments (by both parties). This set of royalty payments yields a continuum of channel coordinating solutions. One solution may be picked from the continuum by bargaining over the channel pie. We highlight two main results: First, to coordinate the channel it is not necessary to eliminate the double marginalization. Second, in the absence of a cooperative promotion participation rate paid by the retailer to the manufacturer (This type of payment is typically not observed in the real world!) the distribution channel can not be coordinated.

3 - Competitive Channel Relationship Management

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The focus of this study is on the impact of inter-brand competition on the effectiveness of a supplier's channel relationship management initiatives. Most of the previous research on channel relationship management has been limited in scope to supplier-channel dyads. Consistent with this research, we expect that the absolute levels of relationship quality in the dyad will influence distributor satisfaction. However, we go beyond previous research to suggest that the relative levels of relationship quality also matter, i.e. the effectiveness of channel relationship initiatives will depend on how the levels of relationship quality in the focal relationship compare to the levels of the same devices in the relationship between the focal distributor and an alternative manufacturer. We focus on two main relationship quality devices or attributes: the level of conflict and the quality of the communication within the focal dyad. Consistent with previous literature on customer satisfaction, we argue that the relationship between relative relationship quality and distributor satisfaction is asymmetric: increases in relationship quality will have a greater effect when relationship quality is below the competitor's than when it is above. We also look at intra-brand competition and show that a supplier's usage of captive channels in the distributor's territory has a critical influence on distributor satisfaction. We find support for our hypotheses in a sample of more than 600 observations corresponding to different resellers selling a manufacturer's product-line across several countries. Our research paints a complex picture of relationship management, by showing that relationship investment decisions should account for competitive relationship quality effects.

4 - Contracts, Governance, and Intermediary Cooperation

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In response to increasing competition, forward thinking manufacturers/brand owners must not only reduce intermediary opportunism and increase compliance with agreed to in-role behaviors, but also do what they can to encourage extra-role behaviors by their intermediaries. Thus, the notion of channel member cooperation takes on an expanded meaning, spanning all three propensities on the part of the downstream intermediary. Interestingly, each facet of cooperation likely has a distinct set of drivers/antecedents. While opportunistic tendencies may be curbed and in-role compliance achieved with explicit governance mechanisms (specifically, contracts), extra-role behaviors may be fostered by persuading intermediaries of their affiliation with a "competent, winning team", implicit in high levels of prior market performance. Moreover, explicit governance and competence likely lead to different patterns of

manifest governance behaviors (monitoring and incentives), in turn leading to different patterns of channel member cooperation. The present study integrates archival and survey data from three different sources (actual contracts, secondary marketing mix and performance information, and surveys of downstream intermediaries) to specify a multilevel Structural Equations Model (SEM) of governance mechanisms, behaviors, and their consequences. In doing so, we shed light on how upstream suppliers may use multiple governance tools to elicit their downstream intermediaries' cooperation in letter and spirit.

■ SA11

Port McNeill

Blog-Research

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1 - The Effect of Online Consumer Reviews on New Product Sales: A Longitudinal Analysis of Amazon.com

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Online WOM communication in the form of online consumer reviews has become a major information source for consumers planning to purchase a new product. By using online reviews, consumers can access diverse opinions from others who have used the new products before making their purchase decisions. Based on the innovation adoption theory, this study compares the impact of online reviews on the sales of experience products and search products over time, in terms of product ratings and the volume and valence of online reviews. Using the data collected from Amazon.com over a period of eight months, we find that the valence of overall online consumer reviews is positively correlated with product ratings. The volume and valence of online consumer reviews have a significant effect on the new product sales over time. Moreover, online reviews together with ratings have a greater effect on new product sales than either one alone. When the volume of negative reviews is equal to that of positive reviews during the initial period, negative reviews have a greater effect on new product adoption, revealing that the bad news travel faster in the online environment as well. The results also indicate that online consumer reviews have greater impact on experience products than search products. The findings suggest that online reviews and ratings provide a meaningful decision aid to consumers planning to purchase new products and that online WOM gains momentum over time and significantly affects the sales of new products. While positive reviews help the sales of new products, the stronger effect of negative reviews is rather detrimental. The dynamic patterns of online WOM and the interactions in an online community affect both the quality perceptions and the sales of new products over time.

2 - Home Users Blogs to Test Products: A Field Experimentation

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This research examines how companies can best organize their virtual customer environments in order to elicit valuable consumer input in the New Product Development (NPD) process. Real developments in information technology nowadays offer firms new ways to elicit consumer input and feedback in the NPD process. Many firms are experimenting with these new opportunities, but little systematic, empirical research exists that allows managers to make informed decisions on when, where, and how to use what for whom. Our paper aims to make a contribution in understanding the effect of the design of interactions between consumers and between consumers and company on the value of the blog as a research tool . Our paper empirically investigates various design choices on the usefulness of blogs as platforms of interaction among consumers and between consumers and company in the NPD process. Through an experimentation, consumers are requested to participate in the NPD process as product testers. They use home blogs that allow the company to understand how consumers use the product, to identify potential adoption barriers, to define product strengths and weaknesses. Our protocols test the impact of two aspects of the virtual customer environment: the interaction between consumers and the interaction between consumers and company. We use both qualitative and quantitative metrics to analyze the results. This research is made in collaboration with Danone center of research.

3 - Mining for Quality on the Web

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Managers and researchers acknowledge that quality is highly correlated to several outcome variables such as market share and stock valuation. However, quality and its dimensions are difficult to assess objectively. One solution is to mine the world wide web with its ever-increasing repository of product reviews generated by consumers, experts, and rating agencies. Yet this vast richness of content has made it difficult to extract useful information such as product quality from the web. Retrieving this information and analyzing this content is an impossible task if it were to be manually done. However, advances in computer science and natural language processing present researchers with a unique opportunity to automate the decoding of quality dimensions from online reviews. The context of the study is new electronic products, whose quality was reviewed by Walter Mossberg regularly on the Thursday issues of the Wall Street Journal from 1991 to 2007. We begin by using a program to crawl the web and download the product reviews published by Walter Mossberg in the Wall Street Journal. The downloaded articles are then put through a natural language processing computer program to pick out the underlying dimensions of the products being reviewed. To train the program, we use the data and findings of Tellis and Johnson 2007. This sample comprises 765 articles that begins in 1991 and runs through 2001. The authors next construct an inter-rater reliability measure between the computer generated dimensions and ratings and the manual dimensions and ratings. Thus ensuring the reliability of the computer generated ratings they employed the "trained" computer rating system to generate the rating and dimensions of a new set of Mossberg articles from 2001 to 2007.

4 - Mine Your Own Business: Market Structure Surveillance Through Text Mining

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The wide spread of the internet has lead to a colossal amount of information posted by consumers on the Web through media such as forums, blogs, and product reviews. This type of information offers the firm an opportunity to "listen" to consumers in the market in general and to its own customers in particular. By observing what customers write about the products in the category, the firm can get a better understanding of marketing opportunities, the market structure, the competitive landscape and the features discussed about its own and its competitors' products. However, the availability of consumer generated content on the Web is a double-edged sword. With the wealth of data comes several difficulties. First, the amount of information makes it difficult to track and quantify consumers' discussions. Second, these rich consumer data are primarily qualitative in nature. Third, the language used by consumers on the Web is often very informal and does not obey standard grammatical rules. To overcome these difficulties we utilize advanced text mining techniques. Using these techniques, our objective is to treat online consumer information as an opportunity for the firm to open a window to large scale exploratory marketing research, allowing the firm to "listen" to the consumers in the market. We then mine these exploratory data to convert them into quantifiable data. We rely on large network analysis techniques in converting the text mining data into market structure analysis. Using consumer generated media in several consumer good categories, we build perceptual maps of the brands in the market as perceived by online consumers as well as the features and terminology used to describe these brands. The analyses we conducted demonstrate a high degree of validity.

■ SA12

Parksville

Understanding and Improving Customer Satisfaction

Chair: Kristof Coussement, UGent, Tweekerkenstraat 2, Ghent, 9000, Belgium, Kristof.Coussement@UGent.be

1 - Why Satisfied Consumers Do Not Want to Buy Again? A Consumer Interaction Explanation

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Consumer satisfaction is the key in building relationship. However, the satisfaction-repurchase intention relationship is not as straightforward as it was theoretically suggested. This article identifies consumer interaction, the interaction among customers of a common product or service vis-a-vis the interaction between customers and the service provider, as an explanation of why would satisfied consumers discontinue their service and vice verse for consumers who are dissatisfied. This article explores how consumer interaction influences repurchase intention, word-of-mouth, and consumer satisfaction in an anthropological study. The data were collected over a nine-month period over the course of an online war game called Travian. Structured questionnaires, interviews, and focus groups were conducted over the course of the study to investigate the role of consumer interaction and its influence changes during the nine months. The data revealed that consumer interaction has a forceful influence on consumer's satisfaction of a service, their willingness to pay for an online service, and their intention to discontinue an online service, independent of the service quality and their satisfaction with the service provider. Implications on the satisfaction-repurchase intention, switching barriers, and word-of-mouth were also discussed.

2 - When Consumer Performance is a Key to Satisfaction

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Product or service performance has long been recognized as a key to consumer satisfaction. However, consumer performance in consumption context may also play a crucial role in influencing satisfaction (Deighton 1992). Independent of product or service performance, consumer performance (includes self-performance and other consumer performances) refers to actions in fulfillment of implicit and explicit obligations in consumption context in which the role of an actor is a consumer. This notion is heightened in some experiential consumption contexts, such as online games, where the service provider may serve merely as a supplier, and consumers take an active role in co-performing the services themselves. In this situation, consumer performance may play an even more important role than product or service performances in influencing consumer satisfaction. This paper explores this aspect and argues that consumer performance would influence satisfaction in experiential consumption. A qualitative study was conducted and data were collected over a nine-month period of an online war game called Travian. By using the anthropological approach, this paper explores how consumer performance influences consumer satisfaction in an online game context. The results show that consumer satisfaction is largely contingent on self-performance (e.g., self ranking of the game, self records of wining battles, social status in team) and other consumer performance (e.g., team records of wining battles, the honor of own team, the performance of enemies) in games rather than the game performance itself (i.e., game service quality, game efficiency etc.). These results have broad implications for theory and practice, and point to opportunities for future research.

3 - Study of Key Factors for Customer Satisfaction in Multi-Channel Banking in Taiwan

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As technology has improved the way people get services through the internet, businesses have developed different channels to contact customers and evaluate their satisfaction. As these channels have proliferated, new challenges for practitioners and academics have arisen, and one of these challenges is an understanding of key factors of customer satisfaction in a multi-channel environment. In this research, we work with banks in Taiwan: (1) to segment or classify customers based on multi-channel orientation in both purchase and after-sales purchase stages; (2) to identify and explore the different critical key factors of customer satisfaction in different channels; and (3) to study how multi-channels may influence economic and perceived performance. This study identified that three segmentations of bank customers prefered differentt channels, and that customers of each segmentation had different channel orientation and after-sales behavior. This provided potential information about multi-channel preferences within a same segmentation, thus identifying key factors to enhance customer satisfaction. Also this study shows that in the emerging channel of nternet banking, customer capability is one important antecedent factor for identifying the segmentation.

4 - Improving Complaint Management by Automatic Email Classification Using Linguistic Style Features

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Customer complaint management has been established as a key research area both in academy research as in today's business environment. This study introduces a methodology to improve complaint-handling strategies through an automatic email-classification system that distinguishes complaints from non-complaints. As such, complaint handling becomes less time consuming and more successful, which results in an overall increase in customer satisfaction. The classification system combines traditional text information with new information about the linguistic style of a client/company email. The empirical results show that adding linguistic style information into a classification model with conventional text-classification variables results in a significant increase in predictive performance. In addition, this study reveals linguistic style differences between complaint emails and others.

■ SA13

Orca

Brand Equity

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1 - Managing Intellectual Property Assets to Build Firm Brand Equity

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Brands represent one of the most valuable marketing assets available to firms. Consequently, a rich body of research in marketing has focused on understanding how firms can build and sustain their brand equity. Although many useful insights have emerged in this area, a discussion of the role of other intellectual property (IP) asset classes such as trademarks, copyrights, designs, and patents within a unified brand management framework is not available. Since these IP asset classes offer unique technology, communication, economic, and legal rights that can be leveraged by firms to build and sustain their brand equity, their exclusion from the strategic brand management dialogue results in an incomplete understanding. In this study we take a step towards bridging this gap by building on marketing and business-law research to propose a framework that highlights the symbiotic relationship between brand equity and other IP asset classes available to firms. Specifically, we highlight the different features embodied by the various IP asset classes and argue how these differences complement each other to form a valuable ecosystem. Further, we explain the process through which marketing managers can leverage this ecosystem to transfer the synergistic value of these assets to reside in their firm's brands. We then argue how this value transference can help both enhance firm brand value and generate stronger brand equity. Our theoretical framework is validated using in-depth case studies from multiple industries. Contributions to both theory and practice are discussed.

2 - Is Revenue Premium a Good Measure of Brand Equity? A Game-theoretic Investigation

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Measurement of brand equity is an important aspect of brand management. Ailawadi, Lehmann, and Neslin (JM 2003) introduced revenue premium as an outcome measure of brand equity. They also validate the measure by inspecting the empirical correlations - correlations of revenue premium with other relevant variables using marketplace data. We provide a theoretical investigation of the validity of revenue premium as a measure of brand equity by analyzing the theoretical correlations - correlations of equilibrium values of revenue premium obtained from a game-theoretic model with equilibrium values of other relevant variables. The advantages of the theoretical approach are: (i) stronger theoretical foundation; (ii) incorporation of the role of the retailer; (iii) inclusion of more variables, especially those related to manufacturer brand health; and (iv) ability to compare different measures of brand equity. We employ the procedure to address two questions: (i) Is revenue premium a good (valid) measure of brand equity? (ii) Is revenue premium the best measure among observable premium measures of equity? Our analysis based on two game theory models reveals that revenue premium is both a good measure of brand equity and one of the best among observable premium

measures. This finding could encourage managers and researchers to consider adoption of revenue premium as one of the measures of brand equity. The theoretical correlation procedure introduced in this research can also be used to test the validity of other brand equity measures, as well as to simply understand the equilibrium properties of many other marketing constructs.

3 - Brand Equity, Cash Flow Certainty, and Systematic Equity Risk

Thomas Gruca, Professor of Marketing, University of Iowa, Tippie College of Business, 108 PBB S356, Iowa City, IA, 52242-1994, United States of America, thomas-gruca@uiowa.edu, Lopo Rego, Neil Morgan

Managers and scholars are increasingly interested in understanding how the resources deployed by firms to develop marketing assets deliver value to shareholder. Fundamentally, investors are concerned with both the level of a firm's expected future cash flows and the certainty that these results will be achieved. Marketing strategy theorists posit that market-based assets such as brands may enable firms to both accrue greater future cash flows and lower the risks to obtain these results. In this study, we examine how brands influence the certainty of firm's future cash flows and the stability of its stock price. We study the relationship between the brand equity in the firm's brand portfolio and its cash flow variability as well as beta, a measure of the firm's systematic risk. Using EquiTrend© brand equity data, supplemented with COMPUSTAT and CRSP financial data, we find a robust association between firms that possess strong brands (i.e., a market-based asset) and reduced variability of quarterly and annual cash flows. These same firm have lower stock betas implying a reduced level of systematic equity risk. These findings are generalizable across a variety of firm and industry characteristics. Our results have important implications for managers and academics regarding the influence of brands on the value of the firm to shareholders.

■ SA14

Finback

Measuring Advertising Effectiveness

Chair: Marcel Weverbergh, Prof. dr., University of Antwerp, Prinsstraat 13, Antwerp, 0, 2000, Belgium, marcel.weverbergh@ua.ac.be

1 - Incorporating Dynamic Promotional Effects on Price Sensitivity: A Kalman Filter Approach

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The impact of promotions has enjoyed an extensive run in the marketing literature ranging from simple studies of sales impact on promoted brands to more complex modeling of the impact of various marketing mix elements (such as price promotions) on price sensitivities. The amplification of price sensitivity among consumers found in prior research (Erdem et. Al, 2001) can be partly attributed to the extensive sales promotions they are being subjected to. These effects of promotions on price sensitivities need to be incorporated in current models in order to predict choice more accurately. Such an approach, in addition to improving the fit of the models, would also help quantify the long-term effects of promotions on the overall sensitivity of the consumer. Furthermore, this will also enable a study of how these effects vary across categories. This issue is particularly critical for retailers in identifying categories where price promotions would increase the price sensitivity of consumers. It in turn aids retailers' decisions on the incidence, frequency, breadth and depth of price promotions of such categories. To this end we develop a state-space Kalman filter framework to assess the dynamics of promotions on price sensitivity and its carry over effects on subsequent purchase occasions. By modeling price sensitivity in such a manner we assert that it varies not only from consumer to consumer but also how the effects transcend across purchase occasions thus reinforcing heterogeneity in sensitivities across incidence for the same consumer. Preliminary results indicated that promotions impact price sensitivities to varying extents depending on the category.

2 - Modeling Short-run and Long-run Competitive Effects Within and Across Product Categories

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The immediate and dynamic effects of price changes across brands within a product category have been a subject of several studies. Two main findings of within category cross-price effects are asymmetry and the neighborhood effect (Sethuraman et al. 1999). Cross-category promotional effects however received far much less attention. They have been considered mainly in the retail marketing literature. Promotional deals of a brand in a certain category may attract customers to the store, who also purchase products in other categories. Mulhern and Leone (1990), Walters (1988, 1991), Walters and MacKenzie (1988) analyzed the effect of promotions on store sales and/or sales in other categories and show that the cross-category effect of a price change of a brand depends on whether the categories are complements or substitutes. Optimal price setting schemes of retailers involves price bundling; they can increase retail sales by taking into account interdependencies in demand among brands in their pricing decisions. In other words, they can exploit the complementary and substitution patterns among brands and categories, and the asymmetric and neighborhood effects within categories. In this paper we propose a general nonetheless parsimonious multivariate dynamic model which allows us to capture not only immediate but also dynamic reactions of brand sales to a price change. A brand's sales may react to a price change of another brand in the same product category, but also in another category. The multivariate dynamic model can be used to compute the expected effects of price promotions across brands and categories in a direct and unified manner. Therefore, our model allows us to analyze the effects of price bundling decisions in a single framework.

3 - Modeling of Advertising Effectiveness Using Hierarchal Two-stage Model

Meltem Kiygi Calli, PhD Candidate, University of Antwerp, Prinsstraat 13, Antwerp, 0, 2000, Belgium, meltem.kiygicalli@ua.ac.be, Marcel Weverbergh,
Philip Hans Franses

We evaluate the impact of direct-response commercials on incoming calls at a call center of the advertiser using a hierarchal two-stage model. In order to determine the long-run and short-run effects of advertising we consider a vector autoregressive model (VARX model) as the first stage of the model. In the second stage, the parameters in this model are made a function of channel choice, length of the commercial and the broadcasting scheme. The first-stage parameters show strong intra-day seasonality which we capture with harmonic regressors. Our unique data set concerns a fast service for repairing a consumer durable good in Flanders (Belgium) and it covers the period from May,13 2003 to December,1 2005. In total 261,167 calls were recorded during 96,672 time periods of 15 minutes. The data are aggregated to hourly data resulting in a dataset of 22,416 observations. During this period, 5,172 radio commercials were broadcasted on six radio stations at various times of the day and with different commercial lengths. There is also limited number (254) of TV commercials. Our main conclusion is that the scheduling of the commercials throughout the day has most impact on response. We also find that for example channel choice and the length of commercial do not play a role in advertising effectiveness.

4 - Stability of Advertising Effectiveness Estimates Under Time Aggregation

Marcel Weverbergh, Prof. dr., University of Antwerp, Prinsstraat 13, Antwerp, 2000, Belgium, marcel.weverbergh@ua.ac.be,
Meltem Kiygi Calli

This study investigates the sensitivity of advertising effectiveness under time aggregation. We look at the differences in the estimates of advertising impact when using hourly data or daily aggregates. The data relate to the same advertiser and cover Spain, Flanders (Dutch speaking Belgium) and the Walloon region (French speaking Belgium). Each series is originally 2 to 3 years of data, measured at hourly intervals or even at fifteen minute intervals. The data relate to a fast service for repairs of a consumer durable good. The dependent variable consists of the number of incoming calls at a toll free number. The independent variables relate to the media schedule (time of broadcast, channel and length of spot). The hourly model focuses on within-day effect. The daily model eliminates the need for a within-day autoregressive and distributed lag effect, and allows focusing on total impact. For the Dutch- and French-language part of Belgium, the calls data cover the period from October 2004 to June 2007. The analyses are performed on data aggregated into hourly intervals (23880 data points) and daily intervals (995 data points). For the Spain, the available data cover the period from January, 1 2004 to June, 30 2006. In the observation period, 21,888 data points are available in the hourly base and 912 data points are available in the daily base. Preliminary results support the

idea that the results are quite unstable under time aggregation. This is not only because of differences with respect to advertising effectiveness, but also points to lack of stability with respect to the non-advertising effects.

Saturday, 10:30am - 12:00pm

■ SB01

Junior D

Social Networks and Marketing II

Chair: Jacob Goldenberg, Hebrew University of Jerusalem, Mt Scopus, Jerusalem, Israel, msgolden@huji.ac.il

1 - A Bayesian Framework for Modeling Multiple Relationships Among the Members of a Social Network

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Over the past few years, online social networks have become increasingly popular. Apart from the very big general networks such as Myspace and Facebook, many specialized networks have emerged catering to the interests of particular communities of web users. Social networks facilitate interaction among people who share common interests. Such networks include communities that facilitate transactions, communities of interest and relationships, and communities of fantasy. Businesses are becoming increasingly interested in harnessing the marketing potential of these networks. Apart from the wealth of information that is available from each member, social networks also offer a unique view of the strength of relationships among the members. A clear understanding of the determinants of relationship formation between pairs of users can allow marketers to leverage the network for targeting, persuasion and communication purposes. In this paper we use a Bayesian framework for modeling multiple relationships among the members of a social network. Data on social relations has a complex covariation structure owing to the presence of each individual across multiple dyads. In addition, data is often sparse because most actors have few ties. Bayesian models can accommodate these and other structural properties such as homophily, reciprocity and transitivity of relations within the social network. We use data from an online network of music artists and model three relationship dimensions (friendship, communication and music downloads) among different pairs of artists. These three relations offer a combination of directed and undirected, and binary and non-binary relationships that need to be modeled appropriately. Our results allow us to distinguish the differential impacts of different dyadic and artist-specific factors on the formation of these three relationships.

2 - Sampling Large-Scale Social Networks: The Good, The Bad, and the Ugly

Peter Ebbes, Penn State University, 434 Business Building, Smeal College, University Park, PA, 16802, United States of America, pebbes@psu.edu, Zan Huang, Arvind Rangaswamy, Hari Prasad Thadakamall

With the growing interest in studying social networks for academic and practical research, we need approaches for selecting samples that are representative of both the target population of interest and the social network structure between members of the target population. We conduct a detailed sampling study of several simulated populations that vary in the number of nodes, number of edges, the degree distribution of nodes, and the extent of clustering in the population. We consider several alternative sampling procedures including random-node and random-edge sampling, sampling from the degree distribution, snowball sampling, and forest-fire sampling, and we evaluate the resulting samples on numerous criteria including the recovery of the degree distribution and the distribution of clustering coefficients of nodes, the distribution of path lengths between pairs of nodes, as well implementability in practical marketing research situations. There are substantial variations in the properties of the different sampling methods, although, overall, a modified version of the standard forest-fire sampling procedure performs well relative to the other methods. Our study offers a number of insights for sampling theory and practice that we will summarize in our presentation.

3 - The Diffusion of Newly Experienced Product Information in a Social Network Random Walk or Shortest Cut?

Shenyu Li, Doctoral Student, University of Alberta, 3-23 School of Business Building, University of Alberta, Edmonton, AB, T6G 2R6, Canada, shenyu@ualberta.ca, Peter Popkowski-Leszczyc

We propose a social network theory model for the diffusion of new products. The Bass model and its extensions assume continuous information transmission, where all existing customers simultaneously and collectively influence all potential customers for product adoption. Theory of social contagion states that individual's adoption of new product also depends on the behavior of his immediate neighbors in a social network. We model the diffusion of information in a social network, where each, connected entity repetitively influences the focal entity's new product adoption by increasingly stronger social norms around this focal entity. We incorporate a variable that describes an individual entity's degree of information transmission. On the one extreme it assumes that information transmits in a geodesic distance and on the other extreme it assumes random transmission. We revisited Medical Innovation data and empirically found an optimum point between a random walk process and shortest distance. The explanation power of our model is superior to traditional social network measures like degree, closeness, betweenness and eigenvector. We provide marketing implication of our model.

4 - Zooming In: Self-emergence of Movements in New Product Growth

Daniel Shapira, Lecturer, Guilford Glazer School of business and Management, Ben-Gurion University, Beer-Sheva, Israel, Ben-Gurion University, Beer-Sheva, Israel, shabi6@phys.huji.ac.il, Jacob Goldenberg, Oded Lowengart

In this paper, we propose an individual-level approach to diffusion and growth models. By "zooming in", we refer to the unit of analysis, which is a single consumer (instead of segments or markets) and the use of granular sales data (daily) instead of smoothed (e.g., annual) data as is more commonly used in the literature. By analyzing the high volatility of daily data, we show how changes in sales patterns can self-emerge as a direct consequence of the stochastic nature of the process. Our contention is that the fluctuations observed in more granular data are not noise, but rather consist of accurate measurement and contain valuable information. By stepping into the noise-like data and treating it as information, we generated better short-term predictions even at very early stages of the penetration process. Using a Kalman-Filter-based tracker, we demonstrate how movements can be traced and how predictions can be significantly improved. We propose that for such tasks, daily data with high volatility offer more insights than do smoothed annual data.

■ SB02

Junior C

Words Matter: Investigating the Antecedents and Impacts of Word-of-Mouth Communication

Chair: Cindy M.Y. Chung, Nanyang Technological University, 102 Nanyang Crescent, #04-04, Singapore, SG, 637820, Singapore, acchung@ntu.edu.sg

1 - The Effects of Social Relationship and Regulatory Focus on Word-of-mouth

Tsai Qianyi, Public Affairs Advisor, ExxonMobil Asia Pacific Pte. Ltd., christabel.tsai@gmail.com

Word-of-mouth (WOM) is a form of interpersonal communication among consumers concerning their personal experiences with a firm or a product (Richins 1984). WOM literature has shown that a WOM giver is likely to give a strong tie (compared to a weak tie) a greater amount of WOM (Frenzen and Davis 1990). The current study proposes that this relationship is moderated by regulatory focus. Regulatory focus theory states that people self-regulate their behavior to achieve their goals either with promotion focus or prevention focus (Higgins 1997). Promotion focus encourages one to achieve ideal self while prevention focus encourages one to achieve ought self. Also, promotion focus encourages the use of eager strategy in achieving goals while prevention focus encourages the use of vigilant strategy.

2 - The Impact of Metaperception on Incentivized Referrals

Patricia Chew, SIM University, Patriciachewyp@unisim.edu.sg, Jochen Wirtz, Siok Kuan Tambyah

The Word-of-Mouth Marketing Association (WOMMA) was set up in 2005 as an organization that promotes the best practices of word-of-mouth marketing. Many organizations are members of WOMMA. This shows that marketers are keen to use word-of-mouth techniques as part of their marketing efforts. In academic research however, there is not as much studied on the effectiveness of word-of-mouth programs. Our paper uses the concepts of impression management and metaperception (Schlenker 1980). In social settings, impression management is at play as people make judgments of each other. Central to the theory of impression management is metaperception. Metaperception is the process of determining how one's behavior influences others' judgments of oneself (Laing et al. 1966). It is the individual's perception of how he/she is viewed by others (Levesque 1997). We conducted five studies to examine how incentives impact the likelihood of recommendations being given. The first was a qualitative study that examined respondents' feelings and reactions to being given incentives to make recommendations. Using the results from this study, study 2 established the base model that showed that incentive can have both a positive and negative impact on the likelihood to recommend. When incentives were perceived to be attractive, they had a positive impact on the likelihood to recommend. Through metaperception, incentives had a negative impact on the likelihood to recommend. The larger the incentive size, the more the giver was concerned about how he/she would be perceived by others. Hence, the likelihood to recommend decreased. Study 3 studied the moderating effects of tie strength on the effect of incentive size on metaperception. Study 4 examined the moderating effects of incentive distribution on the incentive size and metaperception relationship. Study 5 looked at the moderating effects of utility of the incentives on the incentive and perceived attractiveness relationship.

3 - The Impact of Word-of-mouth Communication on Attribute Evaluation

Boon C. Lim, PhD Candidate, Nanyang Technological University, Singapore, S3-01B-73, Nanyang Avenue, Singapore, 639798, Singapore, limb0018@ntu.edu.sg, Cindy M.Y. Chung

Past research found that the medium that best communicates the type of attributes is the one most congruent with that type of information (Wright and Lynch 1995). Existing studies mainly focus on advertising and direct experience in testing this medium congruence hypothesis. This paper examines it through looking at the impact of word-of-mouth communication (WOM) on the WOM recipient's attribute rating. We predict that the impact of WOM (regardless of valence) on attribute evaluation increases from search (i.e., attributes that can be accurately determine prior to the purchase) to experience (i.e., attributes that can only be evaluated after purchase or during consumption) to credence attributes (i.e., attributes that cannot be evaluated confidently even after purchase and consumption). As the ambiguity of attribute evaluation and the risk from a lack of information and knowledge increase, WOM becomes a more important source of information to the consumer to judge different aspects of a service before making a purchase. We also predict that the expected increase in the impact of WOM should be greater for negative WOM than for positive WOM. Past research has found that negative information is more credible and diagnostic than positive information (Richins 1984, Bone 1995); and perceived risk increases from search to experience to credence attributes (Mitra et al. 1999). Since the diagnosticity and credibility of the information received should be more salient as perceived risk increases, the reliance on WOM from search to experience to credence attributes should increase more for NWOM than for PWOM. The first experiment was done in the context of the banking industry and a replication was done in the context of the travel industry. Both experiments adopted a 3 (attribute type) X 2 (valence of WOM) between-subjects design. Across the two experiments, an interaction effect was found whereby the impact of WOM on attribute rating increases from search to experience to credence attributes only for NWOM but not for PWOM. Even though WOM is thought to play an important role in shaping consumers' overall attitudes, the results of these experiments suggest that marketers have to be aware that certain aspects of their services are more susceptible to NWOM than others. If the attributes are of equal importance, it may then be more crucial for marketers to focus on credence attributes (e.g., providing better customer service and after-sales support) that are more likely to be affected by NWOM.

4 - The Impact of Positive Word-of-mouth Communication on Post-purchase Attitude

Cindy M.Y. Chung, Nanyang Technological University, 102 Nanyang Crescent, #04-04, Singapore, SG, 637820, Singapore, acchung@ntu.edu.sg, Boon C. Lim

This paper examines the impact of word-of-mouth communication (WOM) on post-purchase attitude. If a purchased brand "fails" despite the positive WOM (PWOM) from the WOM giver, how will the WOM recipient rate this brand? As brands can reflect a consumer's self-concept (Escalas and Bettman 2005), the inability to pick the "right" brand may lead to a threat to the consumer's self. Thus WOM may affect post-purchase attitude through a self-affirming process activated to alleviate such threats (i.e., by rating the purchased brand higher than it merits) (Shultz et al. 1999). The saliency of the threats to the private (i.e., cognitions that involve traits, states, or behaviors) or collective self (i.e., cognitions about group membership) may depend on the accessibility of these two types of self and the tie strength between the WOM giver and the recipient. First, we discuss the situation when the WOM recipient's private self is primed. The prediction is that if a brand is purchased after receiving PWOM from a strong tie (as opposed to a weak tie) and the brand fails, post-purchase attitude toward the brand is lower. The WOM recipient is more likely to use the interpersonal pressure to comply from his/her in-group as a justification for a bad purchase, leading to a lower threat to the private self, and therefore a more accurate evaluation of the brand. In contrast, when PWOM is from a weak tie, the WOM recipient is more likely to perceive that the brand has been purchased due to his/her own choice, leading to a greater threat to the private self. This greater threat will lead the WOM recipient to positively distort brand evaluation, trying to convince himself/herself and others that the brand is not that bad after all. Second, we discuss the situation when the WOM recipient's collective self is primed. The prediction is that if a brand is purchased after receiving PWOM from a strong tie (as opposed to a weak tie) and the brand fails, post-purchase attitude toward the brand is higher. If the PWOM is from a strong tie, the WOM recipient is more likely to perceive that the brand has been purchased because he/she shares the WOM giver's attitude. The failed brand seems to suggest that the WOM giver has been wrong in his/her PWOM. This mistake constitutes a potential threat to the recipient's collective self. To reduce this threat, the recipient may distort brand evaluation, making post-purchase attitude agree with the positiveness of the pre-purchase WOM. On the other hand, when PWOM is from a weak tie, the collective self is not threatened because the weak tie is part of the WOM recipient's outgroup. Moreover, any potential threat to the private self should not be salient as the recipient's private self has not been primed. As a result, the WOM recipient may be motivated to indicate a brand attitude that more accurately reflects how he/she evaluates the failed brand. Essentially, the recipient has no problem implying the outgroup WOM giver's inaccuracy in making recommendation. An experiment with a 2 (collective versus private self) X 2 (strong versus weak ties) between-subjects design is to be conducted in January/February 2008. As the experimenter is a potential source of social influence, steps will be taken to ensure the total anonymity of the subjects. The primes for collective and private self are to be adopted from one of the studies in the paper by Trafimow et al. (1991). Tie strength will be manipulated using different peer groups rather than family versus acquaintances to reduce possible confounds. If the predictions are supported by the findings, relevant marketing implications can be drawn. For example, the research may show that PWOM from the "right" givers can help mitigate a brand's inconsistent performance, leading to higher post-purchase brand evaluation by the WOM recipients.

■ SB03

Grand D

Marketing and Public Policy: Research in the Public Interest

Chair: Peter Darke, Associate Professor, York University, Schulich School of Business, 4700 Keele Street, Toronto, ON, M3J1P3, Canada, pdarke@schulich.yorku.ca

1 - "Organic", "Fair Trade" – Are Consumers Willing to Pay for Food Claims?

Jenny van Doorn, Assistant Professor, University of Groningen, P.O. Box 800, Groningen, 9700AV, Netherlands, j.van.doorn@rug.nl, Peter C. Verhoef

Over the last decades, consumer susceptibility to environmental issues has increased, due to for instance increased coverage in the media and a growing awareness of the consequences of environmental pollution. Also, more public attention has been devoted to third world issues and "fair" trade, e.g. celebrities promoting and marketing a "fair" traded clothing line. Despite the increased public attention, products with an organic or fair trade claim often fail to be an overwhelming success. Market shares for organic food remain rather low, and products with a fair trade logo serve in essence only a niche market. Why is that? The usual answer to this question is that sellers of "organic" or "fair trade" products demand higher prices than those paid for regular products without claims. Hence, consumers would like to have a better conscience by buying "organic" or "fair trade" products, but are not willing to pay the price premium that is charged for these products. The goal of this research is to shed light on the question whether or not consumers are willing to pay a price premium for products with certain claims. We investigate this issue in the context of the food market. The reasons for choosing this market are that food with and without claim has the advantage of being quite comparable (for instance in the clothing market, style issues can determine the choice process as well) and that due to food scandals and genetic manipulation issues, a certain sensibility of consumers can be expected. We examine consumer willingness-to-pay for food with claims like "organic" or "fair trade", and relate consumer willingness-to-pay to specific attitudes towards the product and more general consumer traits and values.

2 - Reverse Socialization and the Prevention of Childhood Obesity

Kafia Ayadi, ATER (IAE of Rouen), Phd student (IAE of Caen) and Affiliated Researche (Rouen School of Management), IAE de Rouen, 3 Avenue Pasteur, Rouen, 76186, France, kafia.ayadi@groupe-esc-rouen.fr, Brian YOUNG, Maya NAJA

This paper aims to apply the concept of "reverse socialization" as part of the prevention of obesity among children. Reverse socialization is the process by which parents and children learn consumption knowledge and understandings from each other. This concept has been studied less in the marketing and consumer behaviour field (Ekström, 2003; Gollety, 1999; Moschis, 1997; Böcker, 1986). The purpose of the study is then to highlight the importance of school programs that promote healthy and well-balanced food intake on children's learning that can be transmitted by them to parents to make them aware of the obesity problem. Results of an exploratory study showed that parents modified their own eating habits - and, consequently that of all the family - by taking into account information about well-balanced food intake acquired by children at school. Results invite public and private actors to take measures through marketing tools to make children more conscious about the bad consequences of obesity. This can be done by specific school programs aimed at promoting bad consequences of unbalanced diets and suggesting things to do while at home to avoid overweight or obesity. Then, by targeting children and through the mechanism of reverse socialization, it can be hoped that a change in parent's behaviour will occur and be effective in preventing children's obesity. Reverse socialization in other fields could then be applied like teaching at school the importance of having a responsive attitude and behaviour towards ecology and the role of children in changing parent's habits by recycling for example.

3 - Effectiveness of Using Ultra Thin Model in Printed Advertisements: The Role of Consumer Morality

Leo Paas, VU University, Marketing Department (FEWEB), Boelelaan 1105, Amsterdam, 1081HV, Netherlands, lpaas@feweb.vu.nl, George Zinkhan, Kelly Andersen

Previous research results show ultra thin models in advertisements can negatively affect women's health related behavior, sometimes even triggering anorexia. To the best of our knowledge, the effects of such models on market related behavior remains unaddressed. Our paper researches these effects, focusing on the consumer's perceived morality of portraying ultra thin models in ads. Surveys were conducted amongst female consumers in the Netherlands and Spain. Results are consistent across countries, which supports generalizability. We find portrayal of ultra thin female models in an ad leads to negative consumer attitudes towards the ad and lower purchase intentions for the advertised product. This results from a lower perceived attractiveness of the ultra thin model, a lower ability of respondents to identify with the model and lower model credibility. The latter two effects are consistent with extant research, the lower perceived attractiveness finding is novel. We suggest there is a limit to thinness, beyond which models are perceived as unattractive. Most relevant for our purposes is that respondents who find portraying ultra thin models in ads as immoral have less positive attitudes towards ads in general and lower purchase intentions. However, this effect is stronger for respondents exposed to the ultra thin model, suggesting ads with ultra thin models are perceived to be less acceptable than other ads. Theoretically, our paper provides novel insights into the role of the model in ads. Managerially, our findings potentially prevent companies from using ineffective ad executions, which also has negative impact society in general.

4 - Deceptive Product Claims and Market Competition

Peter Darke, Associate Professor, York University, Schulich School of Business, 4700 Keele Street, Toronto, ON, M3J1P3, Canada, pdarke@schulich.yorku.ca, Tirtha Dhar, Charles Weinberg, Xiaohua Zeng

Deceptive marketing practices are drawing increasing public scrutiny and attention. Some researchers have speculated that as competitive pressures increase, firms are more likely to engage in deceptive practices, particularly in their advertising. In this paper we test, using a series of laboratory experiments, some of the potential drivers of deceptive advertising. Based on the existing literature in psychology, economics, marketing, and ethics, we hypothesize that deceptive practices can be due to: (a) competitive pressure in the market, (b) financial incentives associated with related sales, (c) norms based on feedback from the marketplace, and (d) personality traits of the decision makers. Our preliminary results suggest strong effects of personality traits, marketplace norms, and financial incentives. In particular, feedback concerning the past behavior of specific competitors altered perceived norms in the market leading to changes in the likelihood that misleading claims were made in the future. These effects were also moderated by the personality of the decision makers. Financial incentives were also important in determining the frequency of misleading claims, but primarily the financial costs involved (i.e., loss of money) rather than the financial rewards (i.e., gain of money). Interestingly, we did not find any significant effect of market competition, implying competition intensity per se does not lead to an increased level of deception. Overall, it was the specific behavior of individual competitors and the financial incentives involved that drove misleading claims, rather than the competitive nature of the market per se.

■ SB04

Port Alberni

Models of Sales Promotion

Chair: Sergio Meza, Assistant Professor, University of Toronto, 2201 All Saints Cr, Oakville, ON, L6j 5N1, Canada, sergio.meza@rotman.utoronto.ca

1 - Capacity Constraints and Imperfect Information: Demand- and Supply-Sided Remedies

Bing Jing, Assistant Professor of Marketing, Cheung Kong Graduate School of Business, Oriental Plaza, 3/F, Tower E3, 1 East Chang An Avenue, Beijing, 100738, China, bjing@ckgsb.edu.cn, Yuxin Chen

Many markets are simultaneously characterized with the following features: (1) consumers' imperfect information about brands, and (2) firms' potential capacity constraints. In a duopoly market with such features, we examine how capacity constraints alter the equilibrium price promotional behavior of the firms, and how referral of one's excess demand to the competitor and contingent capacity-transfer contracts may help increase the firms' profits. We obtain three results. First, when the uninformed population is large (exceeding two thirds of the total population), only the smaller firm's (i.e., the one with a smaller capacity) price strategy employs an atom at the consumer reservation price, meaning the larger firm promotes more aggressively. When the uninformed population is small, either firm's price strategy may employ an atom, depending on the industry capacity. Second, voluntary referral, a seemingly collusive practice, arises in the equilibrium of a non-cooperative game and leads to higher firm profits. Third, contingent capacity-transfer contracts also increase the firms' profits, but the profit increment is dominated by that under referral. The rationale behind is that price competition is more intense under capacity-transfer contracts than under referral.

2 - Developing Deal Calendars in the Presence of Forward-looking Consumers

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In most categories price promotions occur with sufficient regularity to suggest that consumers may learn deal calendars and act in a forwardlooking way: Based on the prices observed in the past, informed customers are able to form expectations about future prices and thus may adjust their purchase behavior e.g. through stockpiling. Given this forwardlooking behavior, the development of deal calendars should take dynamic effects

into account instead of solely applying myopic optimization rules. In marketing literature, dynamic choice models (e.g., Erdem et al. 2003) explicitly account for the phenomenon of forwardlooking whereas models using time-varying parameters (e.g., Mela et al. 1997) do only implicitly take this phenomenon into consideration. Whereas the usefulness for developing sales promotion calendars for the former models is restricted due to their explicit modeling of expectations as well as to their computational complexity, the latter models do only account for the frequency of occurrence of past promotions while ignoring factors like predictability, recency, depth and/or variability of past price promotions. The goal of our paper is therefore to develop a model that bridges the gap between these two modeling philosophies, i.e., which is both able to capture the long-term impact of price promotions on customer purchase behavior and which can be easily used to evaluate different sales promotion calendars. We extend the static framework of Gupta (1988) by incorporating time-varying response parameters, that depend on the frequency, predictability, recency, depth and variability of past promotions. This enables us to compare the effectiveness of different deal calendars while accounting for the long-run effects of promotions.

3 - An Economic Approach to the Moderating Effects of Sales Promotion on Category Structure

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The traditional wisdom maintains that when a brand is placed on promotion, its sales will increase, and the increase will partly come at the expense of the non-promoted rival brands in the category, thus enhancing the inherent substitution effects. We examine if the magnified substitution is the only possible outcome regarding the impact of promotion on category structure - specifically, if promoting one brand can induce a higher level of sales of another brand, making the two brands temporarily less substitutable and momentarily mitigating their perennial rivalry for consumer outlay in the category. Central to our approach is the premise that promotions may affect customer perceptions of prices and expenditure, and temporarily alter their decision-making processes. Drawing on prior research in economics to motivate and explain the proposed methodological framework, we develop a model that enables interesting insights into the associated changes in consumer price sensitivity and spending proclivity. Our findings indicate more complex effects of promotion on category structure than previously envisioned. Specifically, we find that promotions of particular brands can foster supplemental purchases of non-promoted brands in the same category. We benchmark our model against popular ad-hoc models characterized by various degrees of economic consistency and parameter parsimony. The comparisons show that, in addition to providing better conceptual clarity and more systematic insights into the underlying processes, our model can outperform or at least match the traditional models. We illustrate how the inferences obtained from the model can inform the design of optimal pricing and promotional strategies, and we estimate the profit implications of the proposed changes.

4 - Revisiting Models of Sale Promotion in NEIO

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Sale promotions are one of the most important drivers of today's market. For consumers, sale promotions may accelerate purchases, increase stock piling or shift decisions between competing brands. For retailers, sales promotions are an important factor to compete with other retailers in attracting consumers to the store. Finally, for manufacturers, sale promotions are used to both attract consumer`s loyalty to the brand and gain advantageous position at the retail place. Still the way in which sales promotions have been modeled in the NEIO and Marketing literature has failed to appropriately capture all these effects.Sales promotions basically consist of: a temporary discount in the price of the product, and some effort to inform the consumer about this deal. The naÔve model that represents such promotions reduces to just the inclusion of a dummy variable for sale promotions. This dummy is expected to account for the effect of the communication effort. While the change in price is assumed to be already captured by the pricing parameter of the standard model. This model however suffers from some inconsistencies. A resulting positive sign in the promotion dummy parameter implies major utility for the consumers. But at the same time it would wrongly prescribe retailers and manufacturers to increase prices. A negative parameter, on the other hand, would correctly prescribe reduction in prices but would imply reduction in both utility for consumers and profits for the brand. We first revise the potential biases introduced by traditional models of promotion. Next we analyze theoretical models to correct such discrepancies. Then we apply the model to an empirical application. Advantages and the correction of the bias observed in traditional models are finally discussed.

■ SB05

Grand C

Commercializing Innovations and Launching New Products

Chair: Sharmila Chatterjee, Visiting Professor, MIT, 1 Amherst Streeet, E40-166A, Cambridge, MA, 02142, United States of America, schatterjee@mit.edu

1 - Alternate Routes to Commercialization of Innovations: Spinoffs Versus Management Buyouts

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Many large firms develop numerous innovations but are unwilling to commercialize them for fear of cannibalizing their current successful products. Two alternate routes for such commercialization are Spinoffs and Management Buyouts. In the former, the public are shareholders of the new entity, while in the latter the managers are shareholders. In either the parent company may hold shares or an option to buy all or part of the new entity. Which route is more profitable? This study compares the performance of the two organizational forms in the short and long-term. The independent variables are parent-target relatedness, pre-event growth, and geographical proximity. The sample consists of 403 spinoffs and 315 management buyouts in the US from 1984 to 2001. The analysis is by a structural equation model. The analysis yields two main results: 1) spinoffs are better in the short-term, but management buyouts are superior in the long-term; 2) the effect of the antecedents (relatedness, pre-event growth and geographical proximity) varies as time goes on.

2 - Decomposing the Incremental Share of New Product Introductions

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Effectiveness of new product introductions can be analyzed by decomposing their effects, both at the aggregate and the individual levels. We use econometric models to investigate the dynamic effects of the introduction of product extensions on aggregate market level data as well as on individual consumer level data across multiple product categories. At the aggregate level, we analyze effects such as product cannibalization, category expansion, and competitive reactions using brand, category, and store specific variables. At the individual level, we analyze the forward (parent to extension brand) and the backward (extension to parent brand) spillover effects of loyalty and advertising. Our analyses use a comprehensive consumer transaction dataset from over 70 retail stores and covers about 28 new product introductions over a three-year time period. The types of new products considered in our analyses are: brand extensions, line extensions, new brands, and extensions through brand alliances (ingredient/co-branded extensions). Results from the consumer level models indicate that the spillover effects are asymmetric across categories and across introductions. Our findings will provide useful strategic insights to both manufacturers and retailers for their new product introductions.

3 - Balancing the Goods-Services Mix: The Role of Complementary Capabilities in Technology Assimilation

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The study addresses the role that sellers can play in the assimilation of technological innovations within buying organizations, and the marketing value of "complementary capabilities" sellers offer to facilitate assimilation. Complementary capabilities refer to core product capabilities augmented by services such as implementation support, training, change management, & an overall services orientation. The impact of such capabilities is an important issue for software companies striving to balance the mix of goods and services in their business models. The study aims to: "Develop a conceptual framework describing the role that seller services and an overall services orientation play in promoting successful assimilation of new technologies in organizations "Assess the relative impact of different complementary capabilities on the value realized by buyers of technological

innovations "Examine the relationship between the buyer's technology assimilation success and the quality of the buyer-seller relationship "Assess the direct and indirect impact of complementary capabilities on the quality of the buyer-seller relationship, and the relative contribution of augmented or buyer-solution focused capabilities versus core product/service capabilities in influencing that quality The conceptual model is tested in the context of business intelligence systems. Based on a partial least squares analysis of survey responses from a cross-section of US organizations, the study finds that a seller's services orientation has a significant influence on the buyer's relationship quality judgments. Project assimilation success is related to relationship quality; however, the effect is markedly less than either the direct core or augmented capabilities exhibited by the seller.

■ SB06

Grand B

Bayesian Methodology

Chair: Sha Yang, Stern School of Business, New York University, Tisch Hall, New York, NY, United States of America, syang0@stern.nyu.edu

1 - Efficient Designs for Hyperparameter Estimation: Studying the Level-effect in Conjoint Analysis

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The existence of the level-effect in conjoint analysis suggests that consumer preference is context-dependent. Standard conjoint analysis models in marketing research do not adjust for contextual influences in part-worth estimation and, consequently, cannot predict consumer buying behavior well in different contexts. We develop and test a structural model for the level-effect by incorporating ideas from the Psychology literature, where the level-effect is parameterized as a hyper-parameter in a hierarchical linear model. To evaluate the effectiveness of our proposed model and the effect of different survey designs, we conduct web-based survey studies on credit card products. We present a general design criterion for accurate hyper-parameter estimation in hierarchical linear models, which involves the consideration of two aspects of the design choice: i) the within-unit design specification and ii) the across-unit specification. These specifications interact in hierarchical models, and can lead to optimal designs that are non-orthogonal. Thus, designs based on the accurate estimation of respondent-level effects alone may not be efficient for hyper-parameter estimation, as demonstrated through the survey designs in our study. Results from the survey data suggest that our model offers a better fit than simpler specifications. Furthermore, designs with higher efficiency lead to more accurate estimation and predictions in general.

2 - Bayesian Modeling for Spatio-Temporal Multimarket Data

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Most consumer goods manufacturers are interested in monitoring consumers' responses to their products across different regional markets. Leading market research firms such as IRI and AC Nielsen collect geographic multimarket time-series data of brand performance to accommodate this desire. These networks of data-collection stations provide regular measurements of performance for a variety of product categories and brands within a product category. Multimarket data exhibit both spatial and dynamic properties. The spatial properties exist because two markets that are proximal geographically or are similar in other market characteristics generally exhibit similar sales performance. The dynamics arise from the fact that current sales performance is influenced by the past. When dealing with such point-referenced spatiotemporal data, it is crucial to model these spatial and temporal components flexibly and appropriately. In virtually all previous work within marketing, the spatial process specification is almost always a parametric and stationary Gaussian process, which, although convenient, is restrictive. In our work, we extend current approaches for spatiotemporal multimarket data by incorporating spatial structures on marketing mix coefficients instead of on the error structure and by accommodating Bayesian nonparametrics via the Dirichlet process. Methodologically, our nonparametric approach incorporates nonstationarity in spatial sales performance and overcomes restrictions due to the use of the Gaussian process. Substantively, our model allows for greater understanding of the effects of marketing variables on sales performance in each market, and facilitates flexible prediction and interpolation of sales in markets where data are not available.

3 - On the Information of the Definition of Feasible Set in Pricing Decisions

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Traditional pricing decision process involves two separate stages. First the parameters of the demand system are estimated and then an optimization problem is formulated to decide the optimal prices conditional on the parameter estimates. The optimization problem is defined by an objective function that is derived from the estimated demand and by a set of constraints imposed by the manager. Typical examples of these include bounds for the optimal prices, keep relatively constant the overall level of prices and inequalities to impose that the optimal price of one product has to be grater equal of other product of higher quality. From a Bayesian perspective, the entire manager's knowledge has to be translated into the prior distribution of the parameters in the estimation phase. We propose that the description of the feasible set in the optimization problem contain information about the parameter and therefore it should be included in the estimation stage as well. In this article we describe how this information could be used in the estimation by using a rejection sample approach enriched with additional constrained derived from first order conditions in the price optimization constraints. Finally we present a simple empirical example to illustrate the impact of price decision by using the proposed approach where we show that price constraints induce an implicit truncation on the prior distribution in the parameter space and that enhancing the prior specification with managerial constraints the optimal price policy could shift significantly.

4 - Modeling the Under Reporting Bias in Panel Survey Data

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Survey has been one of the most widely used marketing research methods to study consumer attitude and behavior. However, one big challenge of estimating econometric models based on panel survey data is the underreporting bias. There has been empirical evidence suggesting that respondents may underreport their behavioral incidence when the data recording mechanism is tedious and the probability of underreporting is likely to increase over the duration of the survey period. In this paper, we propose a Hierarchical Bayesian model to simultaneously study the underreporting bias (i.e. behavior occurs but was not recorded) and the true behavior of interest (i.e. the incidence of beverage consumption). There are two direct benefits from the proposed method. First, it offers a model-based approach to remove the underreporting bias in panel survey data, and therefore allows marketing researchers to make accurate inferences on consumer actual behavior. Second, the method also offers a natural way to study what factors tend to influence the propensity to underreport. Since we are treating those underreported behavioral incidences as missing at non-random, this underreporting propensity varies across respondents and over time. This understanding can help marketing researchers design the right strategy to intervene and incentivize respondents to not to underreport and hence improve the quality of the panel survey data. The proposed model and estimation approach are tested on both synthetic data and an actual panel survey data on consumer reported beverage-drinking behavior. Our analysis suggests that underreporting can significantly mask respondents' true behavior.

■ SB07

Grand A

Conjoint Analysis Methods

Chair: Srikant Vadali, Assistant Professor, University of Massachusetts, One University Avenue, Lowell, United States of America, Srikant_Vadali@uml.edu

1 - Testing Preference Rankings

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Preference rankings are a common tool in consumer surveys. Such rankings are easy to perform and the outcomes are easy to understand. In this study we propose a method to examine if observed rankings imply statistically significant differences across the products. If there is statistical evidence of differences across products, the question is which products it concerns. We use multiple comparison procedures to test which products are

significantly different from each other. Our method concerns the often-encountered practical situation that consumers evaluate N products but only give preference rankings for a subset that is selected by each consumer. This is due to the fact that the literature shows that the task of comparing all N products could be too difficult. It may also be that the assignment of ranks itself is problematic. For instance, ties may occur, that is, the consumer is indifferent between products, and hence two or more products have the same rank. There may also be missing values, that is, the consumer excludes a certain product in the consideration set, and thus does not evaluate it. As a consequence the consumer is not able to assign a rank to this product. The method we propose and analyze in this paper does not suffer from these drawbacks. We illustrate it for 93 individuals who rank 10 movies released in 2007 and who indicate preferences for only 4 of these 10 movies.

2 - On the Relationship Between Cross-effects and Standard ANOVA Models

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Cross-effects models are used to analyze marketing data in contexts where a firm's own and its competitors' efforts influence its market success. The models are used to analyze the results of choice experiments and the observations of sales data, especially scanner data. Cross-effects models typically are used to model two types of effects. First are the effects of the availability of one brand on the demand for other brands. Second are the effects of brand attributes - such as price - on the demand for other brands. This paper focuses on availability effects and explores the relationship between availability cross-effects and two-way and higher order interactions of standard ANOVA models. The conclusions are that, under specified conditions, the sum of the cross-effect of brand A on brand B and the effect of B on brand A equal the AB two-way interaction of the standard ANOVA model. A key condition is that the cross-effect model correctly specifies the model generating the observations. Preliminary results indicate that the estimates of cross-effects are sensitive to misspecification of the cross-effects model and that the relationship between corresponding cross-effects and two-way interactions breaks down in the presence of misspecification of the cross-effects model.

3 - Incentive Aligning Conjoint Analysis Using Inferred Rank Order

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Recent literature has established the importance of incentive aligning research participants in conjoint analysis. A fairly general incentive aligning mechanism (Ding 2007) has also been proposed and tested. This mechanism, however, requires the estimation of the value of money and is relatively difficult for an average respondent to understand. As a result, this paper proposes an alternative mechanism based on inferred rank order. In an empirical test of choice based conjoint with and without incentive alignment, we show that incentive aligned respondents respond to choices in more discriminating and personal ways. In particular, incentive aligned respondents display greater discrimination in the importance of attributes and are more likely to produce a nonlinear response to evenly spaced levels within attributes. We also show that incentive alignment leads to substantial improvement in predictive performance compared to the conventional choice conjoint.

4 - Adaptive Bayesian Question Designs for Partial Profile Conjoint Analysis

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We develop a new adaptive question design algorithm based on Hierarchical Bayesian approaches for partial profile conjoint analysis. Previous Bayesian approaches to question design in the context of choice based conjoint (see for example Huber and Zwerina (1996), Sandor and Wedel (2001)) use prior parameter estimates, obtained from either a pilot study or from managers, to generate a question design that optimizes D-efficiency. Our algorithm departs from the above approaches in two respects: First, our algorithm adapts questions based on the posterior parameter estimates i.e., at any point in the question design phase the algorithm selects the next question based on the current posterior parameter estimates. The posterior parameter estimates are updated in real time as respondents provide answers to previously asked questions. Second, our algorithm customizes the question sequence for each respondent. Previous Bayesian approaches to question design use the same customized question sequence for all respondents. Preliminary simulation results suggest that the proposed algorithm improves partworth recovery vis-á-vis existing question design algorithms (e.g., Fastpace).

■ SB08

Port Hardy

Assessing Risk and Ambiguity Aversion

Chair: Bruce McWIlliams, Professor, ITAM, Rio Hondo #1, Col. Progreso Tizapan, Mexico, DF, 01080, Mexico, bruce@itam.mx

1 - Decision Marking Under Risk in Gambling

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In this study we investigate the risk attitudes of gamblers playing poker machines in a gaming club in Australia over a three year period. The individual level data allows us to track shifts in individual gambler's attitude toward risk over gambling sessions. Overall, we find that people are sensitive to previous outcomes. Individual risk attitudes are generally consistent with Prospect Theory where individuals are risk averse after wins and risk taking after losses. Importantly, there are interesting deviations from Prospect Theory when the frequency of gambling is considered. Infrequent gamblers are more risk averse after large wins, but do not shift their attitude toward risk after small wins. The results for regular gamblers are the reverse, they are risk averse after small wins, but do not shift their attitude after large wins. Very frequent gamblers are risk averse after small wins, but shift to a risk-taking attitude after large wins. All gamblers become more risk taking after a streak of wins. Our findings suggest that it is important to know how "normal"the activity is for the individual to predict the attitude in their attitude toward risk, and also to consider whether there is one win or a series which can be interpreted as a streak of luck.

2 - Low-cost or Traditional Airline: Rational Arguments vs Beliefs, According to Various Traveller Types

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The perception which users have of the quality and the safety of low-cost air transport is, in spite of its relative everyday acceptance, far from being homogeneous. It depends on objective criteria (familiarity with air travel, reason for the journey (Pakdil & Aydin, 2007, O' Connell & William 2005) and on subjective criteria (dimensions of the journey, image of the company, etc.). Regular users of renowned European low-cost companies understand their economic model. They render the journey common-place, compare rationally low-cost and other airlines. Here, price is no longer a factor of reinsurance, without arousing a doubt on safety. But, for the occasional traveller, or those unfamiliar with low-cost companies, the journey remains an event, the flight is an important part of this event, and the passenger's interpretation of the economic model of low-cost airlines and its criteria of reinsurance rest on certain beliefs (Nicolas & Merdji 2007). How does one convince these occasional travellers to use low-cost companies? What other arguments than price could influence these customers and ensure market survival (Mason & Alamdari 2007)? What answers can the traditional companies find (Dennis 2007)? Based on samples of low-cost, charter and traditional airline travellers, questioned in December 2007 at Nantes airport (France), this new research shows the interest which there is to take into account all these criteria in order to deepen the analysis of the model of choice of French travellers and identify the control levers which the low-cost companies can use to widen their market to occasional travellers by reducing the influence of subjective factors.

3 - The Impact of a Budget and Multicategory Choice on Extremeness Effects

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Cross-category effects have been demonstrated in the context of supermarket shopping trips for packaged goods. However, there are many situations in which consumers simultaneously make decisions in multiple product categories for durables; for example, when they move to a new house or buy a new outfit. We analyze the impact of multicategory choices made under a budget that consumers must allocate to several products (including an outside good). Our interest is in extremeness effects (extremeness aversion or extremeness seeking) in the multiple category, relative to the

single category, context. In a number of product categories we examine consumer decisions on a price-quality spectrum in single category choices relative to those in which they are buying for a number of categories at the same time. We estimate extremeness aversion (and seeking) as a function of a number of covariates of a supply side (e.g., product attribute types) and demand side (e.g., consumer involvement, financial constraints, and price-quality consciousness) nature. Based on these findings we review their implications on product bundling for manufacturers as well as on the positioning and branding of products in a market.

4 - Money-back Guarantees and the Value of Decision Time: An Empirical Analysis

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Money-back guarantees (MBGs) reduce the risks of a bad product fit when buyers are considering the purchase of a product. Without an MBG, consumers may experience strong feelings of disappointment for having irrevocably paid for something they are not satisfied with should the product not fit their needs. This paper incorporates disappointment aversion to explain consumers' high valuation of MBG premiums. Using data collected in northern California, we test how consumer valuation of MBGs is affected by the duration of the MBG, variation in risk (store versus catalog), and the return option (store credit versus cash back). In contrast to how MBGs have traditionally been modeled, we show that the expected economic benefit of MBGs does not, in itself, provide a sufficient explanation of their value. Instead, consumers appear to amplify the values of MBGs to account for the protection they provide against disappointment.

■ SB09

Junior B

Product Management

Chair: Vishal Narayan, Assistant Professor of Marketing, Cornell University, Sage Hall 401A, Ithaca, NY, 14850, United States of America, vn28@cornell.edu

1 - Optimal Product Assortment under Commercial Returns

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Ever increasing product variety makes dealing with product returns more difficult for retailers. Motivated with the question of whether retailers should consider product returns when merchandising (as they compose their product assortments), we explore the interactions between product assortment and return policy decisions of a firm under two basic operational modes, make-to-order (MTO) and make-to-stock (MTS). We have a demand model grounded on individual consumer behavior. Consumers decide which product out of a given assortment to buy in the first stage of a nested multinomial logit model, and then decide to keep or return the item in the second stage. The firm, an expected profit maximizer, first makes an assortment decision from an exogenous set of potential products. We call products with high (low) expected valuation popular (eccentric), because they are more (less) likely to be purchased by a typical consumer. Second, the firm sets a refund fraction, the percentage of price refunded upon return. Finally, in the MTS case, the firm also makes inventory decisions for each product offered. Our main finding is that the optimal assortment has a counterintuitive structure for relatively strict return policies (with a sufficiently low refund fraction) and this structure differs between the two operational modes. In the MTO case, it is composed of most eccentric products; whereas, in the MTS case, a combination of most popular and most eccentric products. Therefore, not only that the retailers should carefully consider their return policy in merchandising, they should also take their basic operational mode (MTO versus MTS) into account.

2 - Timing of Sales of Complementary Products

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I analyze firms' decisions to place products on sale when they sell complementary brands. The theoretical part of the paper presents a multiproduct model that predicts sales as the outcome of a mixed strategy Nash equilibrium. I show that when a firm's products are more complementary they are more likely to be placed on sale at the same time. I then test the theory by examining the empirical relationship between the strength of product complementarity and the correlation in the timing of sales. I look at two pairs of complementary products: detergents and fabric softeners; and cake mixes and cake frostings. First, I show that the correlation in the timing of sales is higher for cake mixes and frostings. Then, using a random coefficients demand specification, I show that there is a higher degree of complementarity between cake mixes and frostings than between detergents and fabric softeners.

3 - Pull Promotions and Vertical Product Line Design

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Both vertical product line extension (which refers to introducing additional products with different qualities under the same brand name in a given product category) and pull promotion (which refers to manufacturers issuing coupons to consumers) have become favored strategies of product managers for consumer goods and services in recent years. Literature indicates that both strategies have the same strategic role: being designed to discriminate on low-end and high-end consumer segments efficiently. However, rare literature considers the two strategies simultaneously to analyze a manufacturer's best discriminating strategy. The main purpose of this study is to analyze the promotion problem for a firm which carries a vertical product line. We use game theory as the research method to analyze which items will the firm issue coupon on when it carries a product line: high-end, low-end, or both products and how a firm combines its coupon and product line strategies to improve discriminating efficiency.

4 - Modeling Dynamics in Variety-Seeking: The Effect of Category Length

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The phenomenon of the simultaneous purchase of multiple categories in a store (horizontal variety seeking) has been widely studied in the literature. In contrast, we propose a structural model to study how consumers' expenditures vary across categories and over time (vertical variety seeking). Our model of cross-category consumer expenditures allows the marginal utility of spending, and the level of satiation from spending, to vary not just across categories and consumers, but also over time. We capture the dynamic nature of the marginal utilities and satiation parameters, by adopting a state-space modeling approach within a hierarchical Bayesian model setup. Further, we account for the potentially endogenous relationship between consumers' decisions of how much to spend in a category and the retailer's decision on the length of the category. We estimate the model on a novel dataset of weekly consumer-level expenditures across five categories of food offered by an online retailer, incurred by 315 consumers over a period of 186 weeks. We find that in general, the marginal utilities of consumer expenditure on a category decrease over time. We find that temporal changes in the marginal utility of spending in a category, and the level of satiation, depend on both supply side factors such as the length of the category, and demand side factors such as consumers' previous expenditures within and across categories. We conduct policy simulations based on the parameters of the structural model, to estimate the effect of increasing the category length on consumer expenditure, both across categories and over time.

■ SB10

Junior A

Channels and Customer Choice

Chair: Ranjan Banerjee, PhD Student, Carlson School of Management, 4-171,19th Avenue Sounth., Minneapolis, MN, 55455, United States of America, baner036@umn.edu

1 - Beneficial and Detrimental Effects of Parallel Importation in Distribution Channels

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We study the effects of parallel importation on the profitability of distribution channel member under different channel structures with different parallel importer identities. We show that a manufacturer can indeed benefit from parallel importation by a third party or by an authorized dealer. Moreover, channel structure is critical in determining both who benefits and the mechanism by which this benefit occurs. We identify a new mechanism of beneficial parallel importation, which helps the manufacturer to reduce the double marginalization at the downstream level. In addition, we show whether the parallel importer is a third party or a retailer has

significant effects on the profitability of channel members. We extend our model by incorporating shipping costs and transaction costs and show the robustness of our results. Although this research is motivated from international marketing practice, the modeling approach and the results can be easily applied to cases where a manufacturer sells to different geographic markets or customer segments.

2 - Using Hidden Markov Models to Discover Customer Channel Choice Behavior

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The focus of our study is to investigate multi-channel choice behavior of customers in line with customer lifecycle management. Specifically, we apply a Hidden Markov Model (HMM) to discover the dynamic behavior of customers facing multiple channels. We compare the performance of different model specifications, including latent class models and HMMs to examine temporal variations in customer choice. Understanding customers' channel preferences and how customers migrate over time are crucial to firms in managing multiple channels effectively. Our objective in this paper is to examine the underlying influencers which cause customers to migrate over time into different unobservable states with higher purchase propensities in a specific channel. A particular strength of our approach is that preference parameters vary systematically over time, and this leads to a clearer and strategically meaningful understanding of choice and preference evolution. Our empirical application gives evidence that the proposed HMM model outperforms benchmark models. In addition, our results from longitudinal transaction records show that over time, customers tend to move away from retail stores as they gain more experience in the channels, and become more loyal to a particular channel. Furthermore, customers also reveal different patterns of price sensitivity for different levels of channel experience.

3 - The Consumer Speaks- Revisited: On the Weight of Retail and Manufacturer Brands in Purchase Decisions

Willem Smit, Research Fellow, IMD, Chemin de Bellerive 23, Lausanne, CH-1007, Switzerland, willem.smit@imd.ch, Martin Koschat

As early as 1963, James O. Peckham published an article called "The Consumer Speaks" on consumer's out-of-stock (OOS) reactions showing that only 24% of the shoppers would switch stores, and 58% would buy a substitute if they could not find their favorite brand on the shelf. It was the first study concluding that manufacturers lose much more sales in an OOS situation, than retailers do. Made aware of this vulnerability, manufacturers became more worried of the consequences of growing retailing concentrations on their power in the channel. However, the empirical evidence about retailers' market power is mixed at best, partly due to the different perspectives - time-series analysis on profitability (e.g, Farris & Ailawadi, 1992), surveys on retailer power use like slotting allowances (e.g., Bloom et al, 2000), and consumer behavior studies on OOS reactions (e.g, Peckham, 1963; Campo et al., 2000; Corsten & Gruen, 2004) - studies have taken. None of them have regarded the consumer purchase decision as a whole, which consists of two elementary decisions: (1) what to buy and (2) where to shop. In our study, the decision for the retailer brand (where to shop) and the decision for the manufacturer brand (what to buy) meet on equal footing, and their relative weight are determined by means of conjoint analysis. Our multi-country study directly tackles the question whether retailers or CPG manufacturers have the stronger brands by looking at consumer purchase decisions. By means of conjoint analysis we quantify and compare the weights of retail brands and CPG brands on consumer choices. This paper reports the results of 2,516 grocery shoppers from 5 European countries. We will show the effects of country, category, and consumer characteristics on the importance of brands.

4 - The Impact of Multiple Channels on Customer Acquisition and Tenure

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As firms deal with the complex task of allocating resources across multiple channels, their ability to assess channel performance in terms of the type and number of customers acquired has become a strategic imperative. The present study integrates the literature on multiple channel design with the extant research on customer relationship management. We explore the relationship between the transactional behavior of customers and the nature of channel used to acquire these customers. In particular, we examine the impact of channel-specific descriptors on customer tenure, ongoing revenues, and product-service usage behavior. We assess these relationships in the context of the high-growth mobile telecommunications market in India. Our data tracks a cohort of customers from the initial month of acquisition, across different channels. We are thus able to link customer attraction and retention over multiple channels in an emerging market context.

■ SB11

Port McNeill

Customer Relationships in a Multichannel Environment

Chair: Tarun Kushwaha, Assistant Professor, University of North Carolina, Kenan-Flagler Business School, McColl Building, CB 3490, Chapel Hill, NC, 27599, United States of America, tarun_kushwaha@unc.edu

1 - Forced Channel Migration: Consequences and Management Strategies

Umut Konus, Faculty of Economics and Business, Marketing Department University of Groningen, Netherlands, U.Konus@rug.nl, Debra Trampe, Peter C. Verhoef

Channel migration, an important multi-channel customer management issue, refers to the shifting of customers from one channel to others. Previous multi-channel research focuses solely on voluntary channel migration. However no research investigates forced migration even though forcing customers to switch channels by companies is now a common practice in business. In our study, we study forced channel migration, its consequences and possible mitigation strategies. Our research consists of three experimental studies. (1) First we investigate the effect of forced and voluntary migration strategies on customer satisfaction and retention. We also consider the mediating role of the psychological construct of customer reactance, which refers to individuals' reactions to threatened freedoms. (2) Second, we examine the role of various reward (i.e. discounts, improved service) and punishment (i.e. extra costs, reduced service) programs as mitigation strategies on the negative effects of forced migration on satisfaction and retention. (3) Finally, we aim to investigate if customer response to different migration strategies varies across low-value and high value customers. Our main findings are that forced migration has a negative effect on customer satisfaction and retention, and this effect is mediated by customer reactance. As for mitigation strategies, we find that incentive programs have a mitigating impact on the negative consequences of forced migration on satisfaction and retention. Furthermore, our results reveal that rewards are more effective than punishments in mitigation. For the results of an ongoing third project, we expect more negative consequences of forced migration strategy on high-value customers compared to low-value customers.

2 - Channel Spillovers From Offline Entry

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This paper focuses on the impact of entry of an online firm into the brick & mortar market in terms of online channel revenue and customer acquisition spillover. We use a novel dataset from eBay in which we observe overall zip-code level revenue and listing data, as well as store-specific revenue, listing, and location data. The paper uses differences-in-differences models combined with advanced propensity scoring methods to analyze the impact of entry, while accounting for the endogeneity related to the entry decision. We look beyond traditional metrics to create a richer understanding of the forces of substitution and complementarity. Our results show that brick & mortar store entry does lead to a positive online revenue spillover. However, physical store entry cannibalizes customer acquisition and customer activity in the online channel. The positive revenue spillover is potentially driven by a change in the purchase price of products in the online channel. The research presents a new methodology and framework for examining offline channel entry.

3 - Effective Multi-channel Marketing Strategy From a CRM Perspective

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In today's market most companies implement multi-channel marketing strategies for both sale and interaction with customers. Given the multi-channel practice, this paper investigates the behavior of multi-channel users across some selected industries including retail, financial services, and telecommunications service to see whether there is a real benefit from

the multi-channel marketing strategy. We attempt to find out any systematic difference among customers with respect to multi-channel usage behavior in connection with a telecommunications company specifically. In the course of analyzing multi-channel usage behavior of customers, we will identify what specific marketing variables the company should focus on to strengthen the relationship with its customers.

4 - Cross-Channel and Advertising Effects in the Hierarchy of Consumer Decision Making

Tarun Kushwaha, Assistant Professor, University of North Carolina, Kenan-Flagler Business School, McColl Building, CB 3490, Chapel Hill, NC, 27599, United States of America, tarun_kushwaha@unc.edu, Venkatesh Shankar

The rapid growth in multichannel shopping is prompting managers and researchers to better understand the effects of marketing efforts in one channel on purchases made through the other channels. In this regard, managers are interested in better understanding the effects of different channels on a consumer as she moves through the different stages in decision making. To effectively allocate resources across channels and advertising, they also need sound knowledge of the effects of different channels in conjunction with those of advertising. In this paper, we examine channel (own and cross) effects and advertising effects on the outcomes in the different stages of consumer decision making. We develop a set of proportional response models to capture the hierarchy of consumer decision making. To model own and cross channel effects, we develop a simultaneous system of consumer response models. We estimate these models using time series and cross-sectional data from the auto insurance industry, which comprises the exclusive agent channel, the independent agent channel, the Web and the call center. Our results offer interesting insights. They show that cross-channel effects are significant. The exclusive agent channel and the Web are often synergistic. The exclusive agent and call center channels are complementary, while the independent agent and exclusive agent channels are competitive. Advertising has significant current effects on insurance quotes, qualified quotes and policies and significant lagged effects on brand awareness, insurance quotes, qualified quotes, and policies. The findings offer important implications for marketers in planning their advertising and channel efforts.

■ SB12

Parksville

Issues in Customer Satisfaction Research

Chair: Dmitri Kuksov, Washington University in St Louis, Campus Box 1133, 1 Brookings Drive, Saint Louis, MO, 63132-4899, United States of America, kuksov@wustl.edu

1 - The Impact of Customer Satisfaction and Uncertainty on Firm's Financial Performance

Chongyan Gao, Associate Professor, University of International Business and Economics, Dept. of Marketing, Beijing, China, gchongyan@gmail.com, Jianmin Jia, Liaogang Hao

Customer satisfaction directly reflects the evaluation of service quality by customers, and it is the best indicator of company's performance and profitability. The relationship between customer satisfaction and company's financial performance has been one of the hottest topics in marketing. But in practice and previous studies, people usually consider the average ratings of customer satisfaction only and ignore the impact of uncertainty of ratings. In fact, due to differences of customers and their perceived quality of service, especially when there is a difference of service quality from a company, the result of customer satisfaction survey is typically a distribution instead of a single point. This paper investigates the impact of uncertainty of customer satisfaction ratings on the relationship of customer satisfaction and company's financial performance, and considers the asymmetric and nonlinear effects of customer satisfaction, and provides a better model for the relationship between service quality, customer satisfaction, customer loyalty, and company's financial performance. Based on empirical studies of service firms in China, the authors try to show that service companies can improve their financial performance by increasing the average level of customer satisfaction and reducing the uncertainty of customer satisfaction and service quality.

2 - Estimating Heterogeneous Recommendation and Repurchase Thresholds Using Hierarchical Bayesian Method

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A customer may show inconsistent levels of recommendation and repurchase intention in the same satisfaction survey. In addition, the latent thresholds for recommendation and repurchase are usually heterogeneous across customers. The heterogeneity can be partly explained by individual characteristics and experiences. The implicit thresholds function as criteria in determining what level of satisfaction rate could lead to recommendation and repurchase intentions. The purposes of this paper are to estimate the two latent thresholds and examine how the demographic factors and experience factors affect the thresholds. We apply a Bayesian hierarchical bivariate probit model to estimate the thresholds with the Markov chain Monte Carlo (MCMC) method. We illustrate an empirical application of our approach to a satisfaction survey data of 1,445 automotive customers. The results show the heterogeneity distribution of the two thresholds and the effects of individual demographic and experience factors on the thresholds. The model comparison results show the proposed joint estimation model performs better than the alternatives. The managerial implications of the results may assist industry practitioners in allocating resources in managing customer satisfaction through understanding the customers' satisfaction responses on recommendation and repurchase intentions and how customers' demographic characteristics and experience factors affect these responses.

3 - The Effect of Category and Customer Characteristics on Satisfaction-Loyalty Relationship

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The relationship between satisfaction and loyalty has been studied extensively during the past two decades. Empirical supports have been found for different types of satisfaction-loyalty curves in different studies: linear, quadratic, S-shaped, and inverse S-shaped. However, there is no research that, to our knowledge, attempts to provide a holistic explanation for the heterogeneity among the observed relationships. We propose that the specific relationship between satisfaction and loyalty is driven by product category characteristics and individual customers' characteristics. We investigated this hypothesis in a large-scale study with responses from 138997 customers across 19 different categories. We find strong empirical support that category characteristics and individual characteristics indeed drive satisfaction-loyalty relationship. For example, in the case of product involvement, we find that for high involvement product categories (as opposed to low involvement product categories) satisfaction translates into loyalty at a higher rate when satisfaction level is low to moderate, but at a lower rate when satisfaction level is high. At individual level, for example, satisfaction transforms into loyalty at a lower rate for females (compared to males) when satisfaction level is low to moderate, but there are no gender difference when satisfaction level is high. The insights obtained in this research will be useful to both academics who studies satisfaction and loyalty as well as to practitioners who are interested in optimizing their resources in customer satisfaction management.

4 - Pre- and Post-Purchase Management of Customer Satisfaction

Dmitri Kuksov, Washington University in St Louis, Campus Box 1133, 1 Brookings Drive, Saint Louis, MO, 63132-4899, United States of America, kuksov@wustl.edu, Ying Xie

Recently, and especially in expanding markets, firms put an extraordinary emphasis on customer satisfaction, sometimes treating it as a superior measure of a company performance to current earnings. While customer satisfaction increases future profits through the effect of positive consumer feedback on future demand, customer satisfaction efforts have a short-term cost. Therefore, a question arises as to what level of customer satisfaction is optimal for the firm when the costs of customer satisfaction are accounted for. This paper explores two strategies in customer satisfaction: pre-purchase management of customer satisfaction through providing a higher expected value for money (i.e., lower price) to the potential customers, and the post-purchase management through providing extra services and/or gifts (not promised at the time of the purchase) after the purchase to the existing customers — and shows that if post-purchase management is not feasible a forward-looking firm should decrease its first-period price if and only if the price history is not observed by later consumers. If post-purchase management is feasible, the firm should use it if the market is growing fast enough. Furthermore, if the market is growing slowly, the firm should both reduce the first-period price and provide extra services and/or gifts after the purchase, while if the market is growing fast, the effect on the price may reverse: the firm may find it optimal to charge higher price in the first period, shifting all its customer satisfaction efforts to the post-purchase management.

■ SB13

Orca

Brand Equity and Corporate Citizenship

Chair: Yuxin Chen, Associate Professor of Marketing, Stern School of Business, New York University, 40 West 4th Street, Tisch 906, New York, NY, 10012, United States of America, ychen@stern.nyu.edu

1 - Strengthening Customer Relationships Through Corporate Citizenship Initiatives

Shuili Du, Assistant Professor of Marketing, Simmons College, 300 The Fenway, Boston, MA, 02115, United States of America, shuili.du@simmons.edu, Sankar Sen, C.B. Bhattacharya

There is little doubt that nurturing and maintaining customer relationships is crucial to a firm's long-term health. However, many traditional, economic incentive-based, relationship programs (e.g., miles, cash-back) have been found to be ineffective in fostering customer loyalty (De Wulf et al 2001), highlighting the need for uncovering innovative ways to connect with customers. Not surprisingly, the Marketing Science Institute lists research that "explores new ways to create and sustain emotional connections with the brand" as one of its top priorities (MSI Research Priorities 2006-2008). This research investigates whether and how companies can use corporate citizenship initiatives to forge strong connections with their customers. Our empirical context is an initiative, undertaken by a major consumer products company, that aims to promote oral health among disadvantaged children. Based on exploratory focus groups and follow up field surveys with both initiative participants and non-participants, we find that perceived initiative impact (i.e., the extent to which the initiative is perceived to enhance oral health of initiative participants) is a key antecedent of relationship rewards such as greater brand purchase and more favorable customer advocacy. Furthermore, from a process perspective, initiative impact leads to these relationship outcomes by generating favorable attributions and building brand trust. Our research contributes to theory and practice by (1) uncovering corporate citizenship initiatives as an innovative customer relationship building strategy, (2) illuminating the psychological mechanisms underlying the relationship strengthening capabilities of such initiatives, and (3) showing the possible symbiosis between social and business objectives.

2 - Investigating the Role of Corporate Societal Marketing Programmes in Building Corporate Brand Equity

Das V. Mukunda, Director, Chandragupt Management Institute, Patna, Patna, India, vmukunda_das@yahoo.co.uk, Saji K.B.

The use of corporate societal marketing (CSM) appears to be on the rise in accordance with the increasing recognition of the vast potential of CSM programmes. CSM may be defined to encompass the marketing initiatives, which have at least one non-economic objective related to social welfare and use the resources of the company and/or one of its partners. One of the critical factors that drives the growth in CSM is the realization that customers' perceptions of a company as a whole and its role in society can significantly affect the corporate brand's strength and equity. Building corporate brand equity for one's own is widely considered as one of the most important governance responsibilities by most of the companies today. The present paper is an offshoot of a research by the authors to identify the factors that drive the process of corporate brand equity building up via the societal marketing route. For the exploration purpose, it has been decided to employ the case study method. A set of three carefully chosen organizational case studies have been explored for capturing the factors that drive the process of building the corporate brand equity. The study has led to the development of a conceptual model for CSM driven corporate brand equity, which has been further subjected to an empirical validation in the Indian context. The present paper reports the preliminary outcomes of the study.

3 - The Impact of the Content of Public Relations Activities on Corporate Reputation

Seema Pai, University of Southern California, 177 107th Ave NE Apt. #1904, Bellevue, WA, 98004, United States of America, seema.pai@marshall.usc.edu, Sivaramakrishna Siddarth

In recent years, several business scandals have brought the issue of corporate reputation to the fore and reports in the business press indicate that top executives consider it a critical determinant of firm value and performance. There has, however, been relatively little research on what drives corporate reputation. Agenda Setting theory, posits that mass media influences the issues that people choose to talk and think about, which suggests that the reputation of a firm depends to a significant extent on the stories that the media report about it. Using a panel dataset of 175 firms for 2000-2005, we estimate an econometric model to quantify the impact of a) firm-initiated media coverage, i.e. public relations activities, b) independent media reports and c) a firm's advertising expenditure on the public perceptions of corporate esteem of a firm. Perceptions of corporate esteem are assessed by an annual national poll conducted by Y&R, public relations activity is measured using the volume and content of the press releases issued by a firm and the TNS database is used to obtain advertising expenditures. Our analysis provides insight into the relative influence of these three components of the firm's communication mix on its corporate reputation Additionally, we relate firm characteristics to the differential ability of firms to leverage PR activity to enhance corporate reputation.

4 - The Strategic Implications of Cause-related Marketing

Yuxin Chen, Associate Professor of Marketing, Stern School of Business, New York University, 40 West 4th Street, Tisch 906, New York, NY, 10012, United States of America, ychen@stern.nyu.edu

A growing number of firms are adopting cause-related marketing in selling their products and service. With cause-related marketing, firms typically allocate a portion of their revenue to fund certain socially desirable activities, or invest in minimizing environmental and social costs when producing the products. This paper examines the strategic implications of cause-related marketing for firms in a competitive environment. The central research questions to be addressed are: (1) How will cause-related marketing affect firms marketing mix decisions? Will it lead to higher prices? (2) What are the profit and social welfare implications of cause-related marketing? Who may benefit from it: strong firms, weak firms, consumers and/or general public? A game-theoretical modeling approach is adopted in the paper to investigate those research questions. The model incorporates a non-cooperative pricing game in the supply side and utility maximization with consumer altruism on the demand side. The analyses reveal the key effects of cause-related marketing on firms' marketing decisions and profitability, as cause-related marketing may decrease consumers' costs of contributing to socially desirable activities, create positive network externalities for consumers' altruistic behavior, and increase product differentiation as well as costs. We show that under certain conditions all parties involved, i.e., firms, consumers, and general public, can gain from cause-related marketing. The result has important implications to firms involved in cause-related marketing and public policy makers.

■ SB14

Finback

Advertising Pricing

Chair: Wensui Liu, Statistical Project Manager, Choicepoint Precision Marketing, 1000 Alderman Drive, Alpharetta, 30005, United States of America, wensui.liu@choicepoint.com

1 - Optimal Performance-based Pricing Models in Online Advertising

Jiwoong Shin, Assistant Professor, Yale University, 135 Prospect Street, New Haven, CT, 06517, United States of America, jiwoong.shin@yale.edu, Jeffrey Hu

Performance-based pricing models tie online advertising payments directly to campaign measurement data such as click-through or purchases. These pricing models have become increasingly popular in the online advertising industry. This paper applies the economic theory of incentive contracts to the study of these pricing models and provides potential explanations as to when and how incorporating them into advertising deals can be profitable. We argue that using these pricing models appropriately can give both the publisher and the advertiser proper incentives to make non-contractible efforts that may improve the effectiveness of advertising campaigns. It also allows the publisher and the advertiser to share the risk caused by uncertainty in the product market. We show that key factors that influence the use of pricing-per-click through models are the importance of the publisher's incremental efforts, precision of click-through measurement, uncertainty in the product market, and risk aversion parameters. We also clarify issues that are being debated in the industry, such as how the importance of the advertiser's incremental efforts and existence of non-immediate purchases affect the use of performance-based pricing models.

2 - How Much Should You Pay for the Celebrities in Advertisements? An Application of Conjoint Analysis

Chih-Ping Wang, PhD Candidate, Department of Business Administration, National Chengchi University, No. 64, Sec.2, ZhiNan Rd., Taipei, 11605, Taiwan - ROC, 93355508@nccu.edu.tw, Lichung Jen, Han-Kuang Tien

It is well known that using celebrities in ads can help firms gain brand awareness. However, there are no prospects of gain without pain. Managers of firms need to pay a lot of payments in advance but can't ensure the future success of the brands in ads. Therefore, how to evaluate the monetary value of celebrities still remains a puzzle in advertising industry. This research examines the application of conjoint analysis to this problem and tries to develop the optimal design of print celebrity ads. We manipulated three key elements in celebrity ad designs. They are celebrity types, pictorial imagery appeals, and verbal texts. From the investigation of 139 participants, we illustrated that these three elements have significant impacts toward customer's preference structures. The results indicate that the celebrity endorsement ads should be matched with psychological and social appeals as contextual background to maximize ads communicating effects. We provide a rigor and predictable model to measure the marginal contribution of celebrities presented in ads. Based on this model, managers of firms can establish an objective standard to decide how to pay a reasonable price for the celebrities. The further implications for methodological researchers and empirical practitioners are provided.

3 - Allocation Mechanisms in Search Advertising: A Comparison of Two Ranking Systems

Woochoel Shin, Duke University, ws30@duke.edu, Debu Purohit, Preyas Desai

In search advertising, a number of advertising slots are allocated to advertisers by a single auction. Thus, a search engine essentially needs to specify a mechanism to rank the advertisers. To date, there have been two representative ranking mechanisms, (A) ranking by per-click bid alone, and (B) ranking by relevance-weighted bid amount where relevance is measured by how many clicks an advertiser can get for a search keyword. Each mechanism had been respectively adopted by Yahoo and Google until recently, when Yahoo also began to use system (B). In this paper, we compare the two mechanisms in terms of per-click price, click-through rate, and search engine profit in equilibrium as well as consumer and advertiser welfare. Our analysis suggests, contrary to expectations, system (B) does not always outperform system (A) for a search engine. Depending on conditions imposed on the distributions of advertisers' per-click valuation and relevance, either system can outperform the other. It also suggests that while consumers always prefer system (B), advertisers can be better off with system (A), and thus, advertisers sometimes get hurt by the search engine's optimal ranking system decision.

4 - Adjustment of Selection Bias in Marketing Campaign

Jimmy Cela, PhD, AVP, ChoicePoint Precision Marketing, Alpharetta, GA, Wensui Liu

A standard practice to evaluate the effect of a marketing campaign is to divide the targeted prospects into 2 testing groups, a control group without marketing intervention and the other with intervention, and then to compare the difference of results between 2 groups given observed characteristics. The sole purpose is to see if the intervention is the causal effect of results that we are interested, such as response and conversion rates. From the statistical perspective, it is desirable to randomly assign targeted individuals into one of the testing groups such that the background information of individuals in different groups are comparable or balancing and the assignment of individuals to groups is independent of outcomes of the intervention. This practice is also called Randomization. However, in many marketing campaigns that we observed, the randomization mentioned above is prohibitively difficult due to various constraints in the real world. An example is that the assignment of an individual to the specific group might be somehow determined by his background information, which might be related to his response to the campaign. As a result, this characteristic heterogeneity of targeted individuals between different testing groups will give a biased estimation for the campaign effect, which is also called selection bias. A typical observation of such bias is that the campaign effect looks more optimistic than it is supposed to be. The selection bias is a common issue in many observational studies in social science. While different methods have been purposed to adjust or correct this bias, we'd like to demonstrate two modeling techniques to correct the selection bias in the marketing campaign, namely propensity score method and Heckman selection method, in our paper.

Saturday, 1:30pm - 3:00pm

■ SC01

Junior D

Social Networks and Marketing III

Chair: Puneet Manchanda, Associate Professor of Marketing, Ross School of Business, University of Michigan, 701 Tappan St., Ann Arbor, MI, 48109, United States of America, pmanchan@bus.umich.edu

1 - Impact of Information Diffusion on Bidding Behavior in Secret Reserve Price Auctions

Oliver Hinz, University of Frankfurt, Mertonstr. 17, Frankfurt / Main, HE, 60054, Germany, oliver.hinz@wiwi.uni-frankfurt.de, Martin Spann

The interactive nature of the Internet promotes collaborative business models (e.g. auctions) and facilitates information-sharing via social networks. In Internet auctions, an important design option for sellers is the setting of a secret reserve price which has to be met by a buyer's bid for a successful purchase. Such secret reserve prices can be found in various Internet auction formats such as open eBay auctions, eBay's Best Offer auctions, and various variants of the Name-Your-Own-Price (NYOP) auction. Bidders have strong incentives to learn more about the secret reserve price in these auctions, thereby relying on their own network of friends or digital networks of users with similar interests and information needs. Information-sharing and flow in digital networks, both person-to-person and via communities, can change bidding behavior and thus can have important implications for buyers and sellers in secret reserve price auctions. The goal of this paper is to analyze the impact of information diffusion in social networks on bidding behavior in secret reserve price auctions. We develop an analytical model for the effect of shared information on individual bidding behavior as well as hypotheses for the effect of the individual position in social networks. We empirically test the implications of our analytical model in a laboratory experiment, and examine the impact of information diffusion in social networks on bidding behavior in a field study with real purchases, where we utilize a virtual world as proxy for the real world. We find that the amount and dispersion of information in the individualized context, and betweenness centrality in the social network context, significantly impact bidding behavior.

2 - Application of Social Network Analysis in Pharmaceutical Marketing

Raghu Iyengar, University of Pennsylvania, 700 Jon M. Huntsman Hall, 3730 Walnut Street, Philadelphia, PA, United States of America, riyengar@wharton.upenn.edu, Christophe Van den Bulte, Thomas Valente

Under the pressure to increase the effectiveness of their marketing spending, marketers are increasingly experimenting with various forms of viral and network marketing. This trend is especially pronounced in the area of new product marketing and in industries, such as pharmaceuticals, where marketing communication and sales force budgets are under increasing scrutiny. The success of many viral and network marketing strategies rest on three key assumptions: (1) social influence or social contagion among customers is at work, (2) some customers' adoptions and opinions have disproportionate influence on others' adoptions, and (3) firms are able to identify and target those influentials. We report on a study conducted in cooperation with a pharmaceutical company that sheds light on some important issues for network marketing. Our study combines (i) actual network data on advice and patient referral ties among physicians in three cities, (ii) demographic data on those physicians as well as a measure of self-reported opinion leadership, (iii) individual-level prescription data for the new drug as well as two other drugs launched earlier for treatment of the same medical condition, and (iv) individual-level sales-call data for the new drug provided by the firm. The results indicate the presence of social contagion on adoption even after controlling for marketing effort. This justifies the deployment of network-based marketing strategies targeting the most central physicians. We also find that high self-reported leadership is associated with lower susceptibility to contagion. No such intercation is found for actual network status. Finally, we find that the influence of prior adopters is moderated by their prescription volume of the new drug.

3 - How the Web 2.0 is Changing Word-of-Mouth and Opinion Leadership as we Know it

Mark Elsner, Doctoral Candidate, University of Mainz, Jakob Welder-Weg 9, Mainz, 55099, Germany, elsner@marketing-science.de, Oliver Heil

Due to the rapid diffusion of the internet, the communication among consumers has fundamentally changed. Traditional one-way-communication channels are increasingly substituted by electronic Word-of-Mouth (eWOM). By eWOM we refer to the activities during which consumers exchange information and opinions through web-based networks - an idea which is reflective of the Web 2.0 concept. Importantly, only a part of this consumer generated and promoted content seems to have an effect on consumers and firms – since only a small fraction achieves a high and important level of awareness (which may actually shatter entire firms). Our central research question, thus, addresses the factors and processes that cause certain content to possess such high levels of relevance and impact. We look at traditional and internet-specific attributes of a message and source. Furthermore our work looks at Opinion Leadership which seems to be undergoing most fundamental changes. Traditional markers of an opinion leader - who one is, what one knows and whom one knows - even though they still exist in this form, seem to find a different constellation in the web. This happens seemingly through qualitative and quantitative rankings of sites (mostly weblogs) as well as through sites that support the idea of consumers collectively determining the value of content. The latter concept in a way resembles the competence of an opinion leader - or what one knows - however, in a new way.

4 - Network Marketing: The Role of Structure and Distance on Performance

Puneet Manchanda, Associate Professor of Marketing, Ross School of Business, University of Michigan, 701 Tappan St., Ann Arbor, MI, 48109, United States of America, pmanchan@bus.umich.edu

Network marketing (also known as multi-level marketing) has been a successful business in the United States and abroad for many decades. In this model, a manufacturing firm provides products to independent distributors for distribution (to other distributors and retailers) as well as consumption. The incentive structure for distributors typically rewards network creation, maintenance and extension. Distributors usually find other distributors to supply to via their social networks. The resulting networks are quite complex (both in terms of depth and breadth) and change constantly. In this paper, we use a novel dataset from a large multi-level marketing company to provide a detailed description of the network. We then show how network structure and the location of the network participants affects distributor performance.

■ SC02

Junior C

Marketing Engineering - Integrating Data Mining Tools and Decision Support Systems

Chair: Baohong Sun, Tepper School of Business, Posvar Hall, Carnegie Mellon University, Pittsburgh, PA, 15213, United States of America, bsun@andrew.cmu.edu

1 - Learning and Acting Upon Customer Information: An Empirical Application to Service Allocations with Offshore Centers

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Since the 1990s, the role of call centers has transformed from a cost to be minimized to a crucial element that performs integrated marketing functions. Call centers have become among the most crucial corporate assets to grow customer relationships and firm profits. Using customer call history data from a DSL service, we empirically investigate how customers' onshore and offshore service experience affect service duration and customer retention and parameterize the relationship among service allocation, service duration, and customer retention. We then formulate firms' call allocations as a matching problem in which the firm learns about heterogeneous customer preferences, balances the trade-offs between short-term service costs and long-term customer reactions, and makes optimal service allocations that maximize long-term profit. On the basis of the estimation results, we conduct simulations to derive optimal service allocation decisions. We demonstrate that learning enables a firm to make more "customized" allocations tailored to customer preference. Acting on long-term marketing consequences prompts the firm to make "proactive" decisions that prevent customers from leaving. We show that by integrating learning and acting on customer information, the derived optimal allocation decisions (1) reduce service costs, (2) improve customer retention, and (3) enhance profit. Our findings provide empirical evidence about how customers evaluate offshore centers and shed new light on the drivers of customer retentions, namely, service allocations in general and offshore centers in particular. With the application to service channel allocations, the proposed framework mirrors the recent trend of companies seeking solutions that entail customized and dynamic marketing mix interventions to grow long-term customer profit.

2 - When is the Juice Worth the Squeeze? – An Empirical Study of Optimal Structuring of Win-back Strategy in the Presence of Consumer Dynamics

Yacheng Sun, Indiana State, yacsun@indiana.edu

In the wake of increasing competition and elusive customer loyalty, Corporate America has become increasingly active in the establishment of customer win-back programs. This study is a new attempt to shed more insights on how to realize the full potential of such programs. More specifically, we examine the optimal structuring of win-back strategy in the context of a continuous subscription service. We show that, following the repeated utilizations of the service, consumers' consumption needs and sensitivities for service components (e.g., price and service quality) are dynamic. Such consumer dynamics has non-trivial implications for designing and implementing the proactive win-back strategy and more specifically, identifying the optimal timing of offering a win-back plan. We present a dynamic structural framework to show how the proactive win-back strategy can be implemented. First, we set up a Hidden Markov Model (HMM), as a flexible and systematic way continuously track the consumers' evolving needs and preference in different relationship states with the copmany. To take into account consumers' time-varying valuation for the win-back plan as well as for the regular plans, we formulate the company's decision of when to introduce the win-back plan as a stochastic optimal stopping problem in which the company (1) follows the evolving consumption pattern of each consumer and (2) makes "proactive" win-back offers in order to influence consumer behavior in the way that maximizes her expected future profit contribution. Our policy simulations show that based on dynamic marketing intelligence generation and analytical decision-making, our proposed structuring of win-back plan introduction improves the company's current, reactive win-back program, by better differentiating between consumption-oriented and service-oriented customers at their different stages of relationships with the company.

3 - Introducing the Right Financial Product to the Right Customer at the Right Time – An Empirical Analysis of Proactive Cross-selling Campaigns

Shibo Li, Indiana State, shili@indiana.edu, Baohong Sun, Alan Montgomery

Existing cross-selling literature has focused on developing methodologies to better predict purchase probabilities for the next product that is likely to be purchased. The goal is to find the best customers for a scheduled campaign. In this paper, we formulate cross-selling campaigns as a stochastic dynamic programming problem. We explicitly account for the company's long-term goal which is to maximize the long-term profit of its existing customers while taking into account the development of customer demand over time and the multi-stage role of cross-selling promotion. The model yields optimal cross-selling strategies that are a multi-step, multi-segment and multi-channel cross-selling campaign process about when to target which consumer with what product using what campaign channel (how). Using cross-selling campaign and transaction data provided by a national bank, we demonstrate the dynamic and state-dependent nature of the optimal cross-selling campaign decisions and derive structural properties of the customized and dynamic cross-selling campaign strategies. We show that the suggested cross-selling strategies are both more effective and efficient and the long-term profit is significantly improved.

■ SC03

Grand D

Marketing Science Beyond Business

Chair: John Roberts, Scientia Professor, University of New South Wales, NSW 2052, School of Marketing, Sydney, NS, 2052, Australia, johnr@agsm.edu.au

1 - A Multi Criteria Decision Making Methodology for Strategy Selection in Social Marketing Campaigns.

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In this paper a mathematical programming approach is applied in a novel way to assist marketing planners in the selection of an optimum strategy for marketing campaigns, which attempt to change the behaviour of individuals," in order to achieve a socially desirable goal". Current techniques used in strategy selection are discussed and the various issues associated with their use are highlighted. To overcome the drawbacks identified in current methods and provide additional managerial information for marketing, a goal programming model is proposed. Goal programming is ideally suited to model the priority structure associated with the multiple goals of a social marketing campaign while simultaneously allocating available resources between competing strategies. The structure of the model and its flexibility in analysing multiple criteria is discussed. The model has the capacity to accommodate both linear and nonlinear constraints as well as being able to provide for integer and continuous decision variables. The model is solved using simulated data and a sensitivity analysis is conducted on the resulting bi and aij parameter estimates to determine the stability of the optimum strategy. By combining the preferences of the target group in a social marketing campaign with the managerial, organizational and resource constraints of the marketing institution this study contributes to marketing by illustrating a new and innovative application of goal programming. The modelling approach presented in this paper also has implications for management by providing an avenue for improvement in the efficacy of marketing decision making.

2 - Competing for the Future of Business Schools: Does Academic Research Help or Hurt MBA Programs?

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Since the 1960s, scientifically-oriented academic research has played a prominent role at most leading business schools. Yet, recently, critics have argued that emphasizing research is misguided and may only serve faculty's interests at the expense of students and the businesses that will employ them. Our study seeks to provide some evidence on this debate by investigating the long-term effects of academic research in business schools on the perceptions of other academics, recruiters, and applicants, as well as on the school's education performance with current students. We find that academic research has positive, long-term effects on the perceptions of these three constituencies and on education performance. Moreover, effect sizes are large and meaningful. A persistent increase of three single-authored articles per year is associated with an improvement in a school's ranking among academics by one place, a decline in its acceptance rate of 1%, and an increase in graduates' average annual starting salary of over $1000. We discuss the implications of our findings and present related opportunities for future research.

3 - Food Safety, PR/HACCP Regulation and Competitive Marketing Strategy

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This study develops a theoretical structure to study food safety investment as a strategic marketing decision in the food sector. Due to the nature of public safety and security, food safety technologies have been developed to comply with the US government's 1996 Pathogen Reduction/Hazard Analysis and Critical Control Point (PR/HACCP) regulation. However, there exist powerful market forces at work to provide incentives for competitive firms to invest in product and process innovation in the food sector's supply chain. Here we consider these investments as part of a firm's marketing strategy in the context of an oligopolistic market using the multinomial logit market share model as the basic framework. The presence of government's regulations on this sector is reflected by introducing an exogeneous parameter constraint. We first characterize conditions for optimal decisions on these investments and provide subsequent equilibrium analysis with marketing and managerial implications, given the constraint of the government's regulations. We then provide certain evidence of support for this model by analyzing data from a recent comprehensive survey on Meat and Poultry Plants' Food Safety Investments conducted by the Economic Research Service of the US Department of Agriculture.

4 - How Do CSR Evaluations Depend on Whom You Ask and is That Changing?

John Roberts, Scientia Professor, University of New South Wales, NSW 2052, School of Marketing, Sydney, NS, 2052, Australia, johnr@agsm.edu.au, Pamela Morrison, Charlie Nelson

Many companies are moving to triple bottom line reporting, measuring their performance against staff and environmental criteria, as well as purely financial ones. In measuring companies performance on community awareness and environmental sustainability, there are arguments in favour of (and against) weighting different members of the population differently, depending on the importance of the topic to them. In favour is the fact that more precise measures of actual performance are likely since those who care about these issues are likely to be better informed. Additionally, from a social welfare perspective, if we wish to optimize (or improve) subjectively perceived individual utility we should weight according to the importance of the issue. Against weighting is the argument that this is a societal issue that affects constituents far beyond the current population. Also, those who feel more keenly about the issues more have some bias relative to the entire community and so could disenfranchise those who care less about the issue. In this paper we develop a model of CSR perceptions at the individual level and show how the appropriate weighting of different segments depends on the objectives being considered. We apply the model to perceptions of issues and companies taken in 2005 and 2007 and demonstrate the changes that have taken place over this period.

■ SC04

Port Alberni

Service Organization Management

Chair: Shijin Yoo, Assistant Professor, Korea University Business School, Anam-Dong, Seongbuk-Gu, Seoul, 136701, Korea, Republic of, shijinyoo@korea.ac.kr

1 - An Empirical Study of Servant Leadership and Service Performance

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Based on the internal marketing and interactive marketing perspective, the authors provide an integrated model for investigating the effect of servant leadership on service performance. In this model, the authors propose three mediating variables: (1) service climate; (2) service behavior; (3) purchase atmospherics. In this research, we applied the service profit chain and link the relationship among supervisor, employee and customer. We integrate theory form both service and organizational literature so as to study the effect of supervisor's servant leadership on the behavior of first line employee and the results of service performance through the service climate and the purchase atmospherics. The model was examined by a sample of 184 sales clerk and 717 of their corresponding customers from 47 clothes stores in our research model. The results support that service climate, service behavior and purchase atmospherics are mediating effects in our model. This study improves our understanding of supervisor, employee and customer on the service performance.

2 - Paradox of Service Effectiveness: Leveraging Frontline Mechanisms for Managing Quality and Cost

Detelina Marinova, Assistant Professor of Marketing, University of Missouri - Columbia, Robert J. Trulaske College of Business, 429 Cornell Hall, Columbia, MO, 65211, United States of America, marinovad@missouri.edu, Jun Ye, Jagdip Singh

Recent research has uncovered an interesting paradox of service effectiveness: service organizations challenged by productivity- quality trade-offs can be more effective if they focused on delivering high quality rather than increasing productivity of operations (Rust et al 2002); however, organizations would achieve even higher performance if they are successful in managing for both high service quality and internal productivity (Mittal et al 2005). How can service organizations crack the paradox of productivity-quality tradeoffs to attain superior performance? This study addresses this question by identifying a frontline mechanism comprising autonomy, cohesion, and feedback that helps explain when and why the simultaneous pursuit of quality and productivity orientations has positive or negative effects on unit revenue, efficiency, and customer satisfaction.

The proposed framework is empirically tested in the healthcare industry with multiple source data from frontline employees, longitudinal unit-level performance and customer satisfaction. The results indicate that frontline autonomy serves as a key mediator in the link between quality and productivity orientations and performance outcomes, whereas, unit cohesion and performance feedback moderate its effects. The study offers insights for managers facing strategic dilemmas of simultaneously achieving service quality and productivity goals. Building unit cohesion in autonomous frontline units can potentially eliminate the productivity-quality trade-off effect for unit revenue and significantly diminish the trade-off for customer satisfaction while leaving the effect on unit efficiency unaltered.

3 - Assessing the Quality Gap Between the Firm vs. Customer Perspectives in the Service-Profit Chain

Shijin Yoo, Assistant Professor, Korea University Business School, Anam-Dong, Seongbuk-Gu, Seoul, 136701, Korea, Republic of, shijinyoo@korea.ac.kr, Jin K. Han

The service-profit chain (SPC) traces the underlying link between a firm's service operations and its financial performance, and this approach has been applied to many service industries (e.g., banking, hotel, and retailing) in recent years. The framework typically views the SPC as a combination of sub-chains - such as the operational efficiency and profit efficiency chains. A key linkage point in the SPC is the service quality (SQ) construct, where SQ represents both a key output variable in the operational efficiency chain as well as a major input variable in the profitability efficiency chain. Though SQ can be measured via internal/operational perspectives (i.e., firm's assessment of SQ) or via external/marketing perspectives (i.e., customers' perceived SQ), the literature to date has yet to address the impact of these two different measurements on the whole SPC evaluation. To this end, the proposed framework investigates how the two SQ measurements affect the performance evaluation of the entire SPC using Data Envelopment Analysis (DEA). The authors simultaneously estimate the efficiency of the entire SPC, which mitigates the potential biases and misinterpretations prone to piecemeal, multi-stage estimations utilized in past studies. The model is applied to a major commercial bank branch-network in Korea, with the aim of empirically illustrating differences between the two SQ measurements in evaluating the SPC performance. A few moderators - including the firm's marketing activities, consumer demographics, and competition - are also incorporated in the model for a more comprehensive interpretation of the results. The proposed model provides managers with superior applicability to designing and managing their SPC to achieve better performance.

■ SC05

Grand C

New Product Development-Product Design

Chair: P.K. Kannan, Harvey Sanders Associate Professor of Marketing, University of Maryland, 3461 Van Munching Hall, College Park, MD, 20742, United States of America, pkannan@rhsmith.umd.edu

1 - Managing New Product Preannouncements: Who, What & Where?

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New product preannouncements occur either through strategic PR activities undertaken by the firm or via third-party media such as journalists, bloggers etc. These different sources of new product preannouncements enjoy different levels of specificity and credibility amongst stakeholders and consequently have different levels of impact on stock market reaction to these preannouncements. This study draws from agency and signaling theories to develop and test hypotheses on the impact of these announcements depending on the source from where they originate. In addition, previous preannouncement research has primarily focused on product preannouncements regarding the firm's intention to introduce a new product and, for the most part, has ignored preannouncements that update the status of new product introductions (e.g., delays in launch dates and cancellation of new product programs). This study extends current knowledge on the impact of new product preannouncements by considering both positive as well as negative news in the product development cycle on the firm's stock price in the short as well as in the long run. We use a database of new product preannouncements made by 150 firms in the biotechnology industry over a period of 7 years to develop guidelines on how to manage corporate communication during the product development cycle.

2 - The Lives of Durable Goods

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Consumers can replace their durable goods for two reasons. First, they can use a product so much so fast that it becomes inoperable before the end of its normal physical life. Second, they may not use the product too heavily, but the product eventually becomes old, and has to be replaced. This can happen because of natural, physical deterioration, and because newer, better, sleeker products become available. We examine four questions: (1) How much usage, and how much physical life, should a firm build into a product; (2) How should the price of the product vary with its usable and physical life; (3) What are the limits and effects of investments that increase one or the other of the maximum usable or physical life; and (4) What are the effects of cost reductions in the usable and physical life on the strategy of the firm?

3 - Designing Products for Retail Channel Acceptance Considering Slotting Allowances

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Significant research has focused on the marriage of consumer preferences and engineering design in order to improve profitability of manufacturers. The extant literature has generally neglected the effects of marketing channels in the product design stage which are becoming increasingly important (Luo et al 2007). At the crux of the issue is the fact that channel dominating retailers have the ability to unilaterally control manufacturer's design decisions as gatekeepers to the market. In this paper, we propose a new methodology that accounts for this power in designing new products and in providing slotting allowances to the retailers. A chance constrained optimization framework is used to model retailer acceptance of possible engineering designs and accounts for the important effect on the profitability of the retailer's assortment while considering uncertainty in customer preferences. Our approach allows the manufacturer to optimize a product design for its own profitability while reliably ensuring that the product will make it to market by making the retailer more profitable with the addition of the new product to the assortment. In determining the optimal product design, we consider the competing manufacturers' possible reactions in price and specific features of the product, and determine a solution that is robust to these possible changes by competitors. We apply the proposed approach for product design selection in the case of an angle grinder. We show how the methodology is able to improve expected manufacturer profitability while simultaneously presenting the designer with tradeoffs between slotting allowances, market share, and risk of retailer acceptance.

■ SC06

Grand B

Statistical Methodology

Chair: Nobuhiko Terui, Prof., Tohoku University, Kawauchi, Aoba-ku, Sendai, 980-8576, Japan, terui@econ.tohoku.ac.jp

1 - How to Profile Customers Using Collaborative Database Profiling: An Application to Age Estimation

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Firms use external data sources (e.g., Census Bureau data) to infer the most likely age, income, housing situation or marital status of their customers, and better portray their profiles and needs. In this paper, we show that the methodology commonly used in the industry is severely biased towards average national figures. We discuss a maximum likelihood approach to correct for these biases. Taking the example of first name analysis to infer customers' age, we show that the approach we suggest gives much more precise and unbiased estimates, allowing marketers to better profile their customers and tailor their marketing strategy more precisely to their customers' characteristics.

2 - Using Constant Sum Questions in Forecasting Sales of New and Frequently Purchased Products

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There is a large body of work that has explored the use of choice based conjoint experiments and data to forecast sales of new products and the effects of promotional activities on market shares. However, it can be a challenge for practitioners to implement conjoint studies because of cost and complexity. In this research we propose to investigate the use of constant sum as an alternative to using conjoint studies. Constant sum data is obtained by asking consumers to allocate a fixed number of points (typically 10 or 100) across different attributes levels to express their preferences or attitude towards an action (e.g., their likelihood of purchasing). Constant sum data is more survey based than conjoint experiments. Constant sum questions can provide similar data to conjoint studies but at a fraction of the cost and it is much easier to implement. However, there is little research that has explored the marketing insights using constant sum data and comparing with the forecasts that one obtains using conjoint studies. Based on empirical data and case study illustrations, this research explores two aspects of using constant sum questions for forecasting. First, how does the context of the constant sum question affect response? Context effects explored include: placement order within a questionnaire, inclusion of price, competitive brand information, and item selection method by the respondent. Second, how should the results be analysed and used in a forecast model? In particular, we demonstrate the usefulness of the popular Dirichlet and Negative Binomial Distributions when creating forecasts from constant sum data. Through this research we reveal the potential of constant sum data for forecasting new product sales.

3 - A Simulation-Based Performance Comparison of Stochastic and Naive Models of Consumer Behavior

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Stochastic models of consumer behavior in non-contractual settings are experiencing a revival in marketing science. It seems useful to evaluate the performance of models such as the Pareto/NBD model by Schmittlein et al. (1987) or the BG/NBD model proposed by Fader et al. (2005) in comparison to simple management heuristics such as hiatus or frequency rules. A recently published paper by Wübben and v. Wangenheim (2008) conducts such an evaluation on the basis of three real life data sets. The authors conclude that these elaborate stochastic models offer little payback for their significant complexity. Our approach uses extensive simulation to inquire whether these conclusions are generalizable. We find that this is not the case. We examine in depth the patterns of consumer behavior necessary for stochastic models to outperform simple managerial heuristics. Companies with significant customer attrition can gain up to a 40% MSE improvement in transaction forecasts compared to naive benchmarks. We especially find that heterogeneity in transaction and dropout patterns plays an important role and should be adequately considered in choosing the right modeling approach. Given high heterogeneity, stochastic models perform significantly better in identifying active customers. We develop a rationale based on these findings and link that to general industry settings. Additionally, we identify situations that are likely to lead to identification issues when using MLE and basic numerical optimization algorithms.

4 - Count Data Sales Forecasting

Nobuhiko Terui, Prof., Tohoku University, Kawauchi, Aoba-ku, Sendai, 980-8576, Japan, terui@econ.tohoku.ac.jp, Masataka Ban, Toshihiko Maki

We propose a multivariate time series model for discrete outcomes to forecast the numbers of brand sales well as their category sale in the market. The proposed model is directly built on the natural distributional assumption for discrete outcomes of number of sales. By using the fact that setting Poisson distribution to each brand sale produces Poisson distribution for their total number as category sale and, conditional on the category sale, we obtain multinomial distribution for brand sales, we extend this Poisson - Multinomial modeling to dynamic model in terms of dynamic generalized linear model. We employ Bayesian MCMC approach to estimate the model and constitute predictive density.

■ SC07

Grand A

Market Segmentation

Chair: P.V. (Sundar) Balakrishnan, Professor of Marketing, Business Administration Program, University of Washington, Bothell, WA, 98011, sundar@u.washington.edu

1 - The Proof of the Pudding is in the Eating. Data Fusion: An Application in Marketing

Pascal van Hattum, Utrecht University, Heidelberglaan 1, Utrecht, 3508TC, Netherlands, p.vanhattum@uu.nl

Data fusion, or combining multiple data sets in one data set, is not a new concept. However, due to the increasing desire of differentiated direct marketing strategies, it is getting more popular in marketing. This paper shows how marketing information can be fused to a company's customer database. Using two real marketing applications, traditional data fusion methods, like multinomial logistic regression and nearest neighbor algorithms, are compared with a model based clustering approach. Finally, the results are evaluated using internal and external criteria.

2 - Usage Segmentation of Air Cargo Market of High-tech Industry

Ming-Chih Tsai, Department of Marketing, National Chung Hsing University, 250, Kuo Kuang Rd., Taichung, Taiwan - ROC, Jatmc1@hotmail.com, Yi-Ting Tsai

Segmenting markets by usage or consumption patterns is known as usage segmentation. To date, study of usage segmentation in the logistics outsourcing market is lacking. Besides, the quantitative relationship between demographic characteristics and usage segments has not been clearly established. Effects of the interaction between variables have not been satisfactorily quantified. This study aims to develop a quantitative model to analyze usage segmentation of air cargo market of high-tech industry in Taiwan. A Generalized Linear Interactive Model (GLIM) was constructed to model the usage rate or market share of forwarder and express, based on six categorical macro-segmenting variables: including shipment destination, product status, shipment size, delivery frequency, outsourcing decision maker, and company annual turnover. The GLIM is a well-developed categorical data analysis tool. It is capable of formulating the relationship categorically, as well as handling the non-negativity characteristic of usage rates. We conducted face-to-face interviews with Taiwanese high-tech manufacturers on their air cargo consumptions. 580 recent cargo shipments commissioned by 210 Taiwanese high-tech manufacturers were collected and analyzed. They are used to stepwise examine the binary model accounting for the usage rate of forwarder and express. For each segment, market shares of forwarders and expresses can be measured by using the parameters calibrated from the best-fit models. The segmentation result is concluded to be reasonable in size, identifiable and accessible for marketing practices. The empirical evidences provide valuable insights on behavioural understanding and serve as a basis to support air carriers' decision-making on market targeting and service positioning.

3 - A Comparative Investigation of Genetic Algorithms and Simulated Annealing Approaches for Dual Objective Segmentation

P.V. (Sundar) Balakrishnan, Professor of Marketing, Business Administration Program, University of Washington, Bothell, WA, 98011, sundar@u.washington.edu, Subodha Kumar

In an earlier work, Balakrishnan, Kumar and Han (2006) had proposed the use of Genetic Algorithms to address the managerially important problem of Dual Objective Segmentation (Krieger and Green, 1996, Forsyth, Gupta, Haldar, Kaul and Kettle 1999). The increasing focus in profitably segmenting target markets requires simultaneously achieving identifiability of value and targetability. This combinatorially difficult tradeoff requires newer methodologies and efficient heuristics. In order to address the dual objective segmentation problem, we study three variants of GA based approaches, namely pure Genetic Algorithm Based C, GA with penalty function, and GA with penalty function using seed. In this talk, we provide a comparative investigation of the recent approaches proposed, namely Simulated Annealing Heuristics (Brusco, Cradit and Stahl, 2002) and the multiple variants of Genetic Algorithms Based approach to Clustering. A multi factor experimental study is employed to rigorously test a large number of data conditions under which each of the alternate methodologies might be more appropriate. The detailed results of the resulting statistical analyses will be provided. We show, based on the large scale Monte Carlo simulation, that one the Genetic Algorithms Based approach pro-

posed by Balakrishnan, Kumar and Han consistently outperforms all of the other Heuristics studied here for a wide variety of problem instances. Importantly, across all of the newer heuristics, we are able to obtain statistically significant improvement in the variance explained in the classification or background variables with little diminution in the variance of the needs or bases variables as compared to the traditional K-Means methods. We will provide guidelines for efficient and effective implementation to address this important managerial problem.

■ SC08

Port Hardy

Behavioral Choice Models

Chair: Neil Bendle, PhD Student, University of Minnesota, rm 3-150, Calson School of Management, 321 19th Ave S, Minneapolis, MN, 55455, United States of America, bendl003@umn.edu

1 - Towards A Brain-to-Society Systems Choice Model for Motivated Behavior

Laurette Dube, Professor, McGill University, Bronfman Building, 1001 Sherbrooke, Montreal, QC, Canada, laurette.dube@mcgill.ca, Ross Hammond, Asim Ansari, Ulf Bockenholt

Motivated adaptive behaviors relate to individual choice in contexts where cue-induced biological processes carry a significant weight in decision making and behavior. In the domain of food, it seems that the repertoire available as cue-induced alternative response, which originally evolved to adapt to a scarce and uncertain food supply, has lost some of its fitness value with the ubiquitous presence of high-caloric food in the modern industrialized society, where impulsive appeal is economically, socially and culturally reinforced, leading to such problems as obesity. Thus, in food and other domains of motivated behavior, individual choices are not completely independent of the choices made by businesses, and other social, economic and political agents that modulate the environment in which choices occur. We argue that the complex and dynamic relationships between biology, behavior, and environment must inform aggregate models of consumer choice. Second, the models must account for the influences of agents whose behavior also modulates the environment. We contend that models using agent-based complex systems provide a principled way to relate individual consumer choices to the aggregate choices made by businesses and social institutions. The term "brain-to-society systems" model has been coined for this broad integrative approach to choice. We review the conceptual, analytical and empirical challenges associated with this approach and present a preliminary agent-based model related to food choice and the rise of the obesity epidemics.

2 - Towards Biologically Plausible Models of Motivated Behaviour: Sequential Sampling Process Models

Antoine Bechara, Associate Professor, University of Southern California, Hedco Neuroscience Building, Los Angeles, CA, United States of America, bechara@usc.edu, Laurette Dube, Scott Huettel, Asim Ansari, Ulf Bockenholt, Robert Fisher

Canonical models of choice fail to account for many forms of motivated adaptive behaviors, specifically in domains such as food selections. We describe an approach to these choices, based on an extension of neurophysiological sequential sampling process models (SSPM) to value-based judgments. We propose that SSPM can form a solid theoretical bridge between what is known about brain function and environmental influences upon choice behavior. SSPM typically make three fundamental assumptions: (1) evidence favoring each alternative is accumulated and integrated over time, (2) the process is subjects to random fluctuation, and (3) a decision is made when sufficient evidence has accumulated favoring one alternative over the other at a certain threshold level. Influential in psychology and neuroscience, SSPM models have the potential to form a solid theoretical bridge between neural models of brain systems and behavioral models of individual choice by taking into consideration social and physical environmental inputs in the choice process. Social systems ranging from family to culture are potential sources for such social norms which, when internalized by individuals, are called upon when necessary for the eating occasion. They can also come from various socio-economic, commercial or physical features of the spatial environment in which the individual choice occurs. We examine these propositions using data from newly developed food-specific stop-signal and go/no go tasks. We discuss the validity and empirical tractability of sequential sampling choice models for motivated behavior in comparison to dual-mode process models.

3 - Reference Dependence When Tastes Differ

Neil Bendle, PhD Student, University of Minnesota, Rm 3-150, Calson School of Management, 321 19th Ave S, Minneapolis, MN, 55455, United States of America, bendl003@umn.edu, Mark E. Bergen

Reference dependence's effect on choice is usually studied in trade-offs between two vertical dimensions (e.g. payoff/likelihood). But many important decisions involve personal taste, i.e. feature horizontal differentiation. We consider how references influence horizontally differentiated choices. A Hotelling line parsimoniously captures both a consumer's personal preference and their view of other people's preferences. We develop "horizontal" reference dependence faithful to prospect theory, i.e. a non-direction specific function of a consumer's distance to the reference and the product being considered. In effect references generate a consumer's attitude to the distance to the product, not attachment to the reference location. This greatly complicates the Hotelling model. By analyzing all possible permutations of gains and losses we show that although references influence relative strength of preferences, they don't change choice under horizontal differentiation. However in contexts where preference strength matters choices can be substantially influenced by reference dependence. Choices move predictably given loss aversion and diminishing sensitivity allowing specific advice to be generated as to the location managers want consumers to use as a reference. In a political marketing example we capture primary and predicted general election choices on a Hotelling line, showing when electability and uncertainty matter references can influence primary elections. We advise that candidates donít necessarily want voters' references anchored around their position. Moderate candidates want voters' references far from the primary contest while extreme candidates want voters to concentrate on their specific policies. We explore why in "04 Dean's strategy may have helped Kerry."

■ SC09

Junior B

Product Line Management

Chair: J. Miguel Villas-Boas, Haas School of Business, University of California, Berkeley, Berkeley, 94720-1900, United States of America, villas@haas.berkeley.edu

1 - Managing Brand Equity with Product Line Extensions and Contractions

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While recent marketing research has analyzed the impact of SKU additions and deletions on category and brand sales, the longer-term effects of these actions on market-based brand equity are not yet understood. Just as managers fear to reduce advertising even when confronted with model estimates that its sales effect is negligible, they are unlikely to base their assortment decisions exclusively on short-term performance projections. In this paper, we address the following research questions: (1) What is the impact of adding and deleting SKUs on the components of brand equity? (2) How do these brand equity effects depend on the consumer costs and benefits associated with SKU additions and deletions? To address these questions we apply intervention analysis on 8 years of weekly scanner data, combined with detailed information on SKU characteristics. We project that the brand equity effects of an SKU addition/deletion greatly depend on its attribute uniqueness, attribute similarity to the store brand, as well as category SKU proliferation and product line activity. These results provide managerial insights as to whether, where, and how to prune versus add to a brand's product assortment.

2 - Retailing as a Two Sided Platform

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In this paper we develop a model of retailing by treating retail establishments as two sided platforms (Tirole, 2003). In this framework, the objective of the retailers is to maximize profit by bringing in manufacturers with the most attractive products and consumers with higher WTP to trade with each other on their platforms. Compared to existing analytical models of retailing, we model both sides of the market in a single framework and take into account the externalities generated from attracting any player (i.e. suppliers or consumers) to the platforms. By treating suppliers and consumers in a single framework we are able to explain the links

between retail stocking cost, consumer travel cost, the price of the purchased basket of products, and the length and depth of product assortments. Our preliminary results suggest that the optimal assortment and price in the market are dramatically different depending on how consumers value assortment. With a utility linear in price and assortment, the product assortment and the basket price are positively correlated with transportation and assortment costs. On the other hand, with a diminishing marginal utility of assortment, the relationship is in the opposite direction. Our analytical findings fit quite well with the evolution of retail structures and densities. Within a retail platform we also explore margin relationships between loss leaders and other products.

3 - Product Line Dynamics of Performance Products

Guilherme (Gui) Liberali, Unisinos, Av. Unisinos, 950, Sao Leopoldo, RS, Brazil, liberali@unisinos.br, Thomas Gruca

Understanding and modeling consumer learning has been an active research topic in marketing for many years. However, much of this research is focused on non-durable goods. In this research, we focus on performance products - durable goods (such as sports equipment) for which consumers often develop more sophisticated needs with continuing usage. For example, the type of racquet that would appeal to an experienced tennis player is of a much higher quality (and price) than one targeted at players just taking up the game. Recent empirical research has measured these effects of learning on demand for more advanced products. However, the impact of these changes among consumers on product line offerings and pricing has not been modeled formally. In this study, we examine the impact of consumers who trade-up to better quality products as their experience grows on the optimal product line of a firm serving both experienced and novice consumers. We find that the impact of a growing number of experienced consumers (who demand higher quality) on prices, levels of product quality and profits depend on the rules that experienced consumers use to decide to replace their existing products with the latest model. We find that both segments benefit when experienced consumers buy replacements only when the new models are superior to the products they already own.

4 - Information Overload with Endogenous Pricing

J. Miguel Villas-Boas, Haas School of Business, University of California, Berkeley, Berkeley, 94720-1900, United States of America, villas@haas.berkeley.edu

One important decision of firms is to select the product line (characteristics and number of products) to offer consumers. This paper explores the effect of the interaction between evaluation costs and pricing on the optimal product line length to offer consumers. Before deciding to buy a product among the products offered, a consumer learns the product line length. Given the product line length, a consumer decides whether to evaluate the products available and their prices. This decision to evaluate depends on the expected consumer surplus after the evaluation being greater than the evaluation costs. When the firm offers few products, the firm may not attract many consumers because of lack of product-fit, and may be forced to offer low prices. When the firm offers many products, all consumers will find a great product-fit, which allows the firm to charge high prices, resulting in lower expected consumer surplus, which may lead consumers not to evaluate the products in the first place. These two forces may then lead to the existence of an interior optimal number of products to offer. The optimal number of products offered is decreasing in the evaluation costs. The paper presents also some results when the firm chooses also the quality of each product, and when the consumer's valuation for the category is positively correlated with how much a consumer cares about product fit.

■ SC10

Junior A

Channel Structure

Chair: Christina Schmidt-Stoelting, University of Hamburg, Von Melle Park 5, Hamburg, No, Germany, c.Schmidt-Stoelting@uni-hamburg.de

1 - The Effect of Consumer Heterogeneity and Channel Structure on Firms' Product Decisions

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Consumers incur transaction costs when they purchase products, such as traveling to a shop, waiting in line for checking out, haggling over the prices, returning unwanted products, etc. Consumer transaction costs can be affected not only by market-level factors including political, economic, and technological factors, but also by firm-level efforts by manufacturers or retailers. Consumer transaction costs, on the one hand, affect consumers' purchase decision. On the other hand, they affect firms' decisions of marketing mix, such as product quality and price. In addition, firms' decisions are influenced by distribution channel, through which products reach consumers. In this paper, we investigate how firms' product and price decisions are affected by consumer transaction costs and the type of distribution channel, in a market characterized by consumers' heterogeneity on two dimensions, their willingness-to-pay for quality and transaction costs. Firstly, we find that consumers may be offered higher product quality if the product is delivered via an independent retailer than if it is sold directly by the manufacturer. Secondly, we show that a decrease of consumer transaction cost may hurt a retailer, a decentralized channel, consumers as a whole, and social welfare. Thus, we suggest that consumers should not always expect a lower quality if a product is delivered through a retailer, and a lower consumer transaction cost does not necessarily benefit a distribution channel, consumers or social welfare.

2 - Vertical Differentiation Using Outlet Stores

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Vertical differentiation has been widely used by firms selling to consumers with considerable degree of heterogeneous valuations. One such example is heavily practiced by manufacturers of consumer apparel. In addition to offering high quality items through premium retail stores, most apparel manufacturers have opened several factory outlet stores and sell lower quality items at relatively low prices through these stores. Although outlet stores were originated to liquidate merchandise that was leftover from previous seasons, discontinued, or returned by customers, they have become an important distribution channel in recent years due to their performance in reaching price-conscious consumers. A potential concern, however, is that outlet stores may steal, some of the retail store customers which might then lead to cannibalization of the channel profits. In this study we aim to address two main questions: 1. Do outlet stores segment different customer types? 2. Do outlet stores cannibalize manufactures, or are they incremental? We use a household level panel data from a U.S. catalog firm selling apparel and outdoor equipment. The firm adopts a multi-channel distribution approach and serves its customers through catalogs, premium retail stores, and factory outlet stores. A unique feature of this dataset is that during the data period the catalog firm opened a new outlet store in one of its markets for which all the pre and post store-opening transaction data for this market are readily available. Using a hierarchical Bayesian probit model for purchase incidences, we find that customers who adopt the new outlet store are more price-sensitive than those who do not adopt, and the new outlet store has increased the purchase frequencies of the customers.

3 - Sequential Distribution Analysis for Media Products

Christina Schmidt-Stoelting, University of Hamburg, Von Melle Park 5, Hamburg, no, Germany, c.Schmidt-Stoelting@uni-hamburg.de, Michel Clement, Sönke Albers

With rising production and marketing budgets in the motion picture industry and increasing pre sales payments to authors or musicians, media companies are often not able to recover all the investments in the first distribution window (e.g., cinema or hardcover books). Thus, revenues from subsequent distribution channels are highly relevant for the industry. Using diffusion models we compare weekly sales patterns of several media products (books and movies) in two sequential distribution channels (hard cover versus paperback and cinema versus DVDs). Because of differences in the diffusion processes of the same product in different channels a naive prediction of sales of the second channel only based on the diffusion in the first channel is not appropriate. Therefore, we include specific product attributes of the second channel for forecasting issues. Our results indicate that the diffusion of media products in the second window can be predicted well within reasonable boundaries.

■ SC11

Port McNeill

Issues in Business to Business Marketing

Chair: Mrinal Ghosh, Associate Professor, University of Arizona, 1130 E Helen Street, McClelland Hall, 320P, Tucson, AZ, 85737, United States of America, mghosh@email.arizona.edu

1 - Tariff Choice Biases in a Business-to-business-context

Susanne Stingel, Universität Münster, Institut für Anlagen und Systemtechnologien, Am Stadtgraben 13-15, Münster, 48143, Germany, susanne.stingel@uni-muenster.de, Klaus Backhaus

Many companies offer nonlinear pricing schemes for usage-based services. Research on nonlinear pricing schedules is mainly based on the assumption, that consumers have no tariff-specific preference and attempt to maximize their consumer surplus. However, empirical studies have shown that consumers often chose a tariff which does not lead to the lowest billing rate. This has been dubbed "tariff choice bias". Mostly, "flat-rate biases" have been observed. So far, research on the existence and causes of tariff choice biases has been limited to a business-to-consumer (b2c)-context. Therefore, our research examines tariff-choice-biases in a business-to-business (b2b) setting. As an example, we chose cellular phone plans. Our theoretical analysis based on utility considerations shows that in a b2b setting, potential causes of tariff choice biases are the over- or underestimation of usage and the so called "insurance effect", whereas other causes which have been identified in a b2c context ("convenience effect", "taxi meter effect") are not relevant. Our empirical analysis relies on two datasets: survey data in which we included a tariff choice experiment, measurement of constructs as well as estimation of usage and transactional data. We identify a percentage of 73 % flat rate biases and 7 % pay-per-use biases, the value being almost 50 % of the revenue for the provider. We used a regression model to estimate the effect of the potential causes of tariff choice biases. We confirm that in a b2b context, insurance- as well as over -and underestimation effect are causes of tariff choice biases. The taxi meter effect is not. Surprisingly, the convenience effect seems to influence tariff choice in this context. Over- and underestimation outrank the other effects.

2 - Drivers of Profitability in Industrial Services

Werner Reinartz, Professor of Marketing, University of Cologne, Albertus Magnus Platz 1, Cologne, 50923, Germany, reinartz@wiso.uni-koeln.de, Wolfgang Ulaga

In recent years, industrial manufacturers have deployed growing efforts in developing services in addition to core product sales to enable differentiation and to secure long-term growth. Researchers, too, have witnessed a growing interest in the services space, and the recent debate around the service-dominant logic of Marketing only highlights this growing interest. Scholarly research that systematically lays open the required capabilities when transitioning from products to services in business markets is still at an early stage. While practitioners and researchers largely agree on the general benefits of moving towards services in business markets, the question of how manufacturers can turn service revenues into profits still remains open to debate. Indeed, industrial vendors often complain about low willingness-to-pay and poor profit margins of value-added services and customer solutions. The objective of this project is to investigate just this. Due to very sparse existing theoretical and empirical evidence, we use a grounded theory approach to shed light on the underlying process that enables product-focused organizations to extract rents on service offerings. The results highlight the need to build integrated, rather complex capabilities which encompass and integrate the domains of market orientation, sales force management, pricing, and R&D.

3 - Pricing Formats for Branded Components in B2B Markets

Mrinal Ghosh, Associate Professor, University of Arizona, 1130 E Helen Street, McClelland Hall, 320P, Tucson, AZ, 85737, United States of America, mghosh@email.arizona.edu, Kellilynn Frias, Desmond (Ho-Fu) Lo

The use of branded components to provide differentiation gains has become an increasingly popular strategic decision in B2B settings. This investigation considers an important supply-side implication of this choice by asking how OEM managers structure their contractual relationships with suppliers of branded components. Specifically, we ask: Under what conditions are prices (or pricing formulae) for branded components agreed upon (fixed) ex ante versus negotiated (flexible) ex post? We argue that this choice of pricing formats - fixed versus flexible prices ex ante - is determined by whether the core differentiation offered by the focal component is due to either the pre-contractual strength of the vendor's brand or the post-contractual customization activities of the vendor. Using primary survey data, we parse out the differentiation gains afforded by the component into these two categories and find that parties use fixed price formats when the differentiation afforded by the vendor's ex ante brand strength is high but use flexible price formats when the differentiation afforded by the vendor's ex post customization activities is high. Our research integrates the resource-based view with transaction cost economics to shed light on how strategic marketing choices, like the use of branded components, need to be supported by a discriminating choice of pricing rules in the relevant supplier relationships. Implications for branding, pricing strategies and channel management are drawn.

■ SC12

Parksville

Customer and Employee Relationships in Services

Chair: Patrali Chatterjee, Associate Professor, Montclair State University, 1 Normal Avenue, Montclair, NJ, 07043, United States of America, chatterjeep@mail.montclair.edu

1 - Model of Customer Satisfaction in Retail Banking Industry

Vimi Jham, Assistant Professor, Institute of Management Technology, Raj Nagar, Ghaziabad, Ghaziabad, 201001, India, vimijham@rediffmail.com, Kaleem Mohd. Khan

Over the past decades, it has been argued that businesses across all sectors should move toward interactions, relationships, and networks. With the current change in the functional orientation of banks, the purpose of banking is being redefined. The main driver of this change is changing customer needs and expectations. This study helps to empirically investigate relationship dimensions in the banking industry and study the difference in perception of the customer's satisfaction with respect to various services provided by the five Indian Banks. The three relationship dimensions namely traditional services, multi channel banking and internal marketing which lead to customer satisfaction have been identified with the help of factor analysis. The research instrument used is the survey questionnaire which was designed from the literature review as well as from the results of in-depth interviews. It included sixteen variables which determined the satisfaction of 555 customers of the five banks chosen for the study. The study further looks at the impact of customer satisfaction on performance of the Indian banks and proposes a model of conceptual framework that allows for a financial evaluation of areas that are relevant to customer satisfaction in a bank and reinforces that customer satisfaction is important in building relationships in the growing Indian Banking Sector. It enforces that banks must advance their customer-centric strategies by providing satisfaction through their services which will lead to better relationship building and profits for the banks.

2 - Procedural Justice in the Services Context: Construction and Validation of a Scale

Cathy Y. Chen, Assistant Professor, Singapore Management University, 50 Stamford Road, Singapore, 178899, Singapore, cathychen@smu.edu.sg, Peter De Maeyer

Previous research has examined the effects of distributive, procedural and interactional justice on consumer satisfaction, repatronage intention and negative word-of-mouth intention. Among the three types of justice, distributive justice and interactional justice have been more clearly defined and consistently operationalized/measured. Procedural justice, however, appears to be a more complex construct. Depending on the literature, many underlying dimensions have been proposed to describe procedural justice (e.g., flexibility, waiting time/responsiveness, efficiency, completeness of information collected by the service provider, and consumers' opportunity to express opinions and influence the service). Procedural justice has also been measured in many different ways (e.g., speed of complaint handling or opportunity to voice feeling). In this research, a scale is developed to assess procedural justice following the standard scale development process (Malhotra 1981). A comprehensive list of items that are related to procedural justice in consumers perception are generated during focus groups. Next, respondents evaluate the procedural justice of various types of services. Exploratory and confirmatory factor analyses are conducted to examine the underlying dimensions of procedural justice. Developing a scale for procedural justice that is generalizable across service categories is necessary and important. It does not only allow researchers to have a consistent measure for this construct, but also, more importantly, provides a basis for theory-building and a better understanding of procedural justice in the service context.

3 - Towards Standardizing the Quantification of Working Relationship Quality

R. Mohan Pisharodi, Associate Professor of Marketing, Oakland University, School of Business Administration, 414 Elliott Hall, Rochester Hills, MI, 48309-4493, United States of America, pisharod@oakland.edu, John Henke, Jr., Ravi Parameswaran

Cooperative supplier-manufacturer relations have been accepted by business literature as something that is desirable. Studies focusing on the automobile industry have often concluded that competitive advantage and productivity improvements can be obtained by manufacturers who have cooperative relations with their suppliers. However, due to the complexity that exists in diverse business-to-business (B2B) relationships, useful research is frequently hindered by the paucity of a standardized measure for comparing the quality of working relationships. In this research, the authors seek to develop a quantitative index of working relationship quality that possesses predictive validity. Responses are collected through a questionnaire survey of a diverse sample of tier 1 suppliers to six automobile original equipment manufacturers (OEMs). The results of statistical analysis reveal the lack of uniformity in supplier responses to specific OEM demands and pressures as well as the important role of relationship quality in supplier-manufacturer relations.

4 - Comparison Shopping, Satisfaction and Recommending Behavior

Patrali Chatterjee, Associate Professor, Montclair State University, 1 Normal Avenue, Montclair, NJ, 07043, United States of America, chatterjeep@mail.montclair.edu, Ying Xie

Existing research has extensively examined the role of satisfaction in recommending behavior. The underlying assumption is that consumer purchase or product experience with the focal firm is the sole determinant of perceived attribute-level performance, satisfaction and intention to recommend. In reality, however, consumers are exposed to competing offerings during pre-purchase information search. The effect of comparing a focal firm's offer with that of a competing firm, has been examined in satisfaction models to explain why positive disconfirmation may not always lead to satisfaction. However little is known if perceived competitive inequity affects purchase and recommending behavior. Further, existing empirical research focus on purchasers only, this research will investigate differential impacts of comparison shopping on recommending behavior for purchasers vs. non-purchasers. We use a unique dataset that tracks comparison shopping behavior, satisfaction evaluation and recommending behavior through the pre-purchase, purchase and post-purchase stages of a high-involvement product for all consumers who have considered purchasing from the focal retailer. We estimated the four decisions/evaluations (i.e., comparison shop, purchase decision, post-decision satisfaction and referral intention) simultaneously to take the endogeneity into account. Our results show that comparison shopping has a negative impact on purchase, post-decision satisfaction and referral intention. However positive competitive comparison mitigates this impact in post-decision satisfaction only, and its impact is stronger on purchasers rather than non-purchasers.

■ SC13

Orca

Brand Management

Chair: Vijay Viswanathan, PhD Student, Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta, GA, 30322, United States of America, vijay_viswanathan@bus.emory.edu

1 - Brands: The Opiate of the Non-religious Masses?

Tulin Erdem, NYU, 40 West 4th Street, 913 Tisch Hall, Stern School, NYU, NY, NY, 10012, United States of America, terdem@stern.nyu.edu, Ron Shachar, Gavan Fitzsimons, Keisha Wells

Many researchers have suggested that people often form relationships with brands that are religious in nature. The popular press has even proclaimed brands as the "new religion". With such implied associations between brands and religion as inspiration, this research aims to understand whether or not there is a significant relationship between consumers' religiosity and their reliance on brand name products (i.e. the degree to which they prefer branded goods over non-branded goods). First, the authors examine the relationship between religiosity and brand reliance in the U.S. at a macro level, using state level data. Next, they adopt a more micro-level analysis and examine the relationship between individual levels of religiosity and brand reliance using measures of behavior. The results of both studies suggest that non-religious consumers rely on brands to a much greater degree than do religious consumers, particularly when income is high. The article concludes with a discussion of the potential mechanisms driving this relationship.

2 - Brand Evaluation for High-Tech Firms — With an Application to the Mobile Phone Industry

Bo Huang, PhD Candidate, University of Michigan, 701 Tappan St., Ann Arbor, 48109, United States of America, bohuang@umich.edu, Francine Lafontaine

High-tech industries are characterized by a high frequency of product entry and exit, and the sporadic introduction of some extremely popular products, or "star" products. This paper builds on the marketing and the New Empirical Industrial Organization (IO) literature, including Kamakura and Russell (1993), Berry et al. (1995), Nevo (2000) and Goldfarb et al. (2007), to develop a method to evaluate brands especially for high-tech firms. The paper then applies the method to an analysis of brand values in the mobile phone industry in Italy. The method proposed here differs from earlier contributions in that it allows the brand effect to be a dynamic variable rather than a constant and allows for differences in the popularity of the different products sold under a common brand. The method yields a lower bound calculation for the monetary value of the brand, which we benchmark using estimated brand values published by the BusinessWeek/Interbrand and by the Brandz/Millward Brown Optimor. Finally, we discuss the importance of "star" products when it comes to assessing a firm's brand value, i.e. how much they contribute to the monetary value of a firm's brand.

3 - The Impact of Brand Equity on Financial Analysts' Forecast Accuracy

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This research examines the effect of brand equity on the investor community. Prior studies have identified systematic and time persistent differences in analysts' earnings forecast accuracy (as one measure of analysts' performance), but have not explained why these differences exist. Using several data sources, we examine whether the existence of standardized and comparable marketing information (i.e. brand equity values) affects analysts' forecast accuracy. Furthermore, we analyze whether forecast accuracy is positively related to a firm's brand equity after controlling for analysts' characteristics that are potentially associated with forecast accuracy and financial fundamentals (such as shares outstanding, volatility, trading volume, and annual growth figures). The results of this research will be insightful for marketing and investor relations practice as well as for marketing and investor relations academics: We will show the parallels and differences between a firm's marketing and investor relations department focus, offer suggestions for future research on the linkages between these two departments, and derive managerial implications for both marketing managers and investor relations managers.

4 - The Portfolio of Product-market Outcomes As An Explanation for Firm Value and Volatility

Vijay Viswanathan, PhD Student, Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta, GA, 30322, United States of America, vijay_viswanathan@bus.emory.edu, Douglas Bowman

We examine how product-market outcomes of brand equity are related to firm value and volatility. We develop a framework that describes how the equity from individual brands in a firm's portfolio is combined to influence firm-level outcomes. Our theory is based on the notion that, at the firm-level, the total effect from the equity contained in all a firm's brands is driven by a) the distribution of that equity across individual brands, and b) the category profiles from which the equity arises. These forces give rise to balance and consistency in a brand portfolio. We use a combination of IRI data and firm level COMPUSTAT data to empirically test how brand equity outcome measures such as price premium and market share of various brands in the portfolio affect the value of a firm and its volatility. Our results show the importance of accounting for the distribution of brand equity across brands in a portfolio when studying the effect of brands on firm value and volatility. Insights from this study can help marketers adjust their brand portfolios to achieve desired firm-level valuation and risk outcomes.

■ SC14

Finback

Consumer Response to Advertising Communication

Chair: Allison Tencza, Student, Elon University, Business Administration, 2970 Campus Box, Elon, NC, 27244, United States of America, atencza@elon.edu

1 - A Person-situation Perspective to Advertising Creativity—Information Processing and Priming Effects

Jiemiao Chen, PhD Student, Marketing Department, IU, 612 S. State Rd 446 Apt. 3, Bloomington, IN, 47401, United States of America, jc12@indiana.edu

The present research reviews the literature of advertising/consumer creativity in consumer research, as well as the background and research streams of priming effects. Two new perspectives are proposed for a better understanding of the effects of advertising creativity. The first perspective deals with the interaction effect of advertising creativity on consumer information processing, as well as downstream consumption related outcome variables. Specifically, a correspondence hypothesis is proposed. It is predicted here that the correspondence between a particular dimension of advertising creativity and consumer creativity induces deeper information processing, which in turn, influences consumers' attitudes towards the brand, depending on the argument quality in the persuasive message. The second perspective relates to priming effects of advertising creativity on consumer behavior. For one thing, advertising creativity works in the same way as other types of primes in the literature in activating the prime related cognitive categories in consumers' memory cells, which leads to different interpretation of subsequent stimuli. At the same time, advertising creativity as a prime has its unique characteristics - it also activates consumers' divergent production system, which has impact on subsequent consumer behavior (e.g., consumer problem solving, variety seeking, etc.). The current paper adopts the person-situation tradition in social psychology and applies it to the under-investigated domain of advertising creativity. The paper concludes with a discussion of the contribution and directions for future research.

2 - The Role of Social Factors and Participation in User Responses to Advertising in Online Communities

Li Huang, City University of Hong Kong, Tat Chee Avenue, Kowloon,SAR, Hong Kong, Hong Kong - ROC, kaffeel@gmail.com, Fue Zeng, Wenyu Dou

With the rapid growth of online communities and number of community users, advertisers are paying increasing attention to this digital medium by searching for new ways to harness online communities for advertising purposes. However, the changing trend towards commercialism in online communities is often at odds with community users' demand for uninterrupted user experience. The conflicting desires pose challenges to online communities that must balance the tradeoff between advertising revenue and user experience. Drawing on the sociology and advertising literature, this study investigates the impact of social identity and group norms on group intentions to respond to advertising in online communities. In particular, by outlining how community users' participations can moderate the impact of group intention on advertising responses, the study pinpoints the underlying social mechanisms that drive community users' responses to community advertising. The study's conceptual model is tested with a sample of Chinese community users and general support for the study hypotheses is obtained. Implications for strategy planning by online communities and advertisers are discussed.

3 - Emotional vs. Rational Theme-based Incongruence

Allison Tencza, Student, Elon University, Business Administration, 2970 Campus Box, Elon, NC, 27244, United States of America, atencza@elon.edu, Larry Garber

Promotional messages found on packages and in print ads often combine two modes of information - visual and verbal. Recently, consumer researchers have started to study the effects of how consumers cognitively process information when presented simultaneously in these respective modes. This study examines the effects of this simultaneous processing when the visual and verbal information is incongruent in print ads. Using a two factor between subjects design, we conduct an empirical test that examines the relative effects of rational versus emotional incongruence in print advertisements. The first factor manipulates theme at two levels. The first level is emotional incongruence, and the second level is rational incongruence. The second factor manipulates (in)congruence at two levels. The first level is congruent information. The second level is incongruent information. Each subject will be exposed to one of four print ads representing one level of theme and one level of (in)congruence. A series of regression models are fitted to these data to test whether rational or emotional incongruence differs in their respective effects, and how. The dependent variables will be proxies for memorability, attitude to the ad, attitude to the brand, brand beliefs, overall liking, and purchase intention. Preliminary results are reported.

Saturday, 3:30pm - 5:00pm

■ SD01

Junior D

Social Networks and Marketing IV

Chair: Jianan Wu, Associate Professor of Marketing, Louisiana State University, Baton Rouge, LA, 70803, United States of America, jiananwu@lsu.edu

1 - The Emergence of Opinion Leaders in Social Networks

Vincent Mak, The Hong Kong University of Science and Technology, Department of Marketing, HKUST, Clear Water Bay, Kowloon, Hong Kong, HK, Hong Kong - ROC, wsvmak@ust.hk

Opinion leaders are important in word-of-mouth marketing and new-product diffusion as early adopters from whom other consumers obtain product recommendations. However, it is not well understood how opinion leader-follower relationships are formed; in particular, exogenous individual difference explanations of what makes a consumer an opinion leader have not been satisfactory. We therefore suggest a game-theoretic explanation for the emergence of opinion leadership through examining a model which combines features of social network, word-of-mouth communication, consumer heterogeneity, and time preference in a setting in which each consumer makes once-in-a-lifetime choice between a new product and a status quo product. We find that (a) pure strategy opinion leaders emerge in equilibrium whenever certain general conditions are met; (b) counter-intuitively, the most "patient" consumer with the highest time discount rate may become an opinion leader; and (c) equilibria in which opinion leaders are relatively well-connected and/or have low time discount rates are not necessarily efficient, even though they are likely to be focal outcomes.

2 - How Does Word-of-mouth Affect Pricing? Agent Based Simulation of Different Markets

Wander Jager, Associate Professor, University of Groningen, Marketing Institute, Landleven 5, Groningen, 9747 AD, Netherlands, W.Jager@rug.nl, Marco Janssen

Word-of-mouth plays a critical role in the transfer of information and social norms on consumption. These social influences are not limited to fashionable and visible consumptive behaviors, but stretch out to daily commodities such as shampoo and toothpaste. Whereas the social dimensions of consumer behavior have been identified in empirical studies, it is less clear how these affect the behavior of markets. Agent based modeling offers a methodology in studying how social influences in networks of heterogeneous consumers may cause dynamic and complex market behavior. This paper presents a series of agent-based simulation experiments on competing products. A population of 1000 agents, connected in a network, and equipped with heterogeneous preferences for price, quality and service, repeatedly choose among three products. The importance of word-of-mouth and their tendency to explore alternatives are experimentally varied. The first experiments demonstrate that word-of-mouth causes the sales of identical products to diverge strongly over time, thus demonstrating how social processes generate complex market dynamics. A next series of experiments shows how temporal price-cuts affect these dynamics, revealing that in complex behaving markets the effects of price-cuts are significant, but hardly to identify in individual runs. A successive series of experiments is focusing on the effects of combined strategies, where a temporal price-cut is combined with a rise in word-of-mouth. Strong effects are identified, but again the complexities cause effects on sales to vary from 66% increase to a slight decrease. Practical implications for marketing in social driven markets are discussed.

3 - Managing Referral Reward Programs Based on Social Network Models

Jan Becker, Assistant Professor, University of Kiel, Westring 425, Kiel, 24118, Germany, becker@bwl.uni-kiel.de, Christian Barrot, Sönke Albers, Arvind Rangaswamy

Increasingly, customers are listening to each other, rather than to marketers, to learn about products and services. Traditional marketing is becoming less effective in reaching those customers, and marketers are turning their attention to other mechanisms such as social media and referral programs to reach such customers. One way companies foster potentially valuable interactions between active and potential customers is by introducing referral reward programs, where customers receive a premium for each successful referral. Such programs are particularly powerful for companies in digital environments as transaction costs for managing referrals are significantly lower. There are few studies exploring the effectiveness of referral programs, especially in a digital environment. While some studies have explored the relationship between social interactions and word-of-mouth, no study has yet examined the link between tie strengths and propensity to participate in referral reward programs. Further, there is little knowledge on what determines good referrals and how to avoid free-riders only interested in the rewards. Insights about these issues would be valuable for targeting the right customers to participate in referral reward programs. In this research we address these issues. Using an extensive customer data set from the telecommunication industry, we have access to comprehensive information on the customers' communication networks, personal covariates referral activities, and purchases. Based on a multitude of referral incidents, we are able to generate unique insights into the types of interactions that generate successful referrals and the customer segments that yield the most profitable referrals.

4 - Word-of-mouth and Price Dispersion in Online Markets

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The physical separation of buyers and sellers in both time and space in online markets posts greater risk on consumer purchase consequences in online markets than offline markets. Their separation in space creates uncertainty in product examination in which buyers concern whether they will get exactly what they want and if not whether they will be able to return the products conveniently. Their separation in time creates uncertainty in delivery in which the buyers concern whether they will get what they ordered on time or at all. As such, consumers in online markets involve a diligent risk assessment process often based on third party interpersonal information such as online word-of-mouth (WOM). This risk assessment process of buyers often allows sellers with lower assessed risk to charge higher prices for even homogeneous products and consequently lead to price dispersion in online markets. In this research, we attempt to study price dispersion from the perspective of WOM in online markets with consumer risk assessment as the underpinning theory. We investigate how this risk assessment via online WOM affects price dispersion and how product value moderates the impact of online WOM on price dispersion. Our model yields several important propositions which we empirically test using data collected from eBay. We found that 1) both quantity and quality of online WOM are positively salient in driving price dispersion in online markets with a diminishing rate regardless the price dispersion is measured in absolute scale or relative scale and 2) the salience of online WOM effect on price dispersion is moderated by product values, but differently for different measures of price dispersion (e.g., absolute scale vs. relative scale)

■ SD02

Junior C

Gift Giving and Fashion

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1 - Luxe Populi: When Luxury Brands Lose Their Allure

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Status goods not only provide consumers with functional values, they also offer important social values through their brand images. Consumers use these images to communicate to others about who they are or which social group they belong, and they are willing to pay premium prices for these extra social values. At the same time, the target consumer of a certain brand also determines this brand's publicly perceived image. Hence, it is important for firms to decide whom they want to make their products available to and what perceived image they want to present. Several social factors affect firms' decisions: 1) consumers seek social approval from others with whom they want to associate, 2) they also diverge from the population they do not want to be mixed with, and 3) they have developed an increasingly strong desire to associate themselves with recognized objects of little intrinsic but high positional value. Though past literature has examined each factor individually, none has considered their interactions in a dynamic game theoretic setting. Our model incorporates all three factors where firms must compete for brand images and determine their market coverage. This paper provides theoretical explanation as to when luxury brands want to keep their exclusive image and when they rather give up the exclusivity and evolve to target mass market. We find that all these factors have a significant effect on a firm's decision: it depends largely on market structure and consumer composition. Our results also shed lights on firms' product design and line extensions choices.

2 - Competitive and Welfare Implications of Gift Cards

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Gift cards are becoming an increasingly popular gift in the US for birthdays, graduations, mother's or father's days, year-end holidays, etc., and the annual sales of gift cards have reached about $82 billion dollars. In this paper, we investigate through a game-theoretical model the competitive and welfare implications of gift cards. In our study, we explicitly model competition with mutually dependent customers, i.e., gift givers and gift shoppers, and allow money leakage to accrue to competing firms. We show that the introduction of gift cards in a market does not always lessen price competition even though they do help to lock in gift card shoppers to a particular firm. We also show that gift cards can improve social welfare as well as consumer welfare despite the fact that firms make a windfall profit from money leakage, the value left unredeemed in gift cards. Finally, we show that leakage can be taken away from firms by regulatory authorities without worsening consumer and social welfare only when gift cards have become sufficiently popular among gift givers.

3 - Optimal Dynamic Pricing and Return Policies in Holiday Seasons

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This paper develops a theory of rational pricing and return policies in holiday seasons for both monopoly and duopoly retail stores. Besides regular customers, retail stores are facing a transitory demand from gift-buyers in holiday seasons. Unlike gift-buyers, regular buyers can finish buying after the holiday (e.g. Christmas), and because what they purchase will mostly be consumed by themselves, the likelihood that they need to return what they purchase is not so high as that for gift-buyers. We consider a three-period model, interpreted as respectively one week before Christmas, the Christmas Eve, and one week after Christmas. We allow the retail store(s) to change prices every period, and choose a return policy with the optimal number of periods of grace, which endogenously determines a gift-buyer's valuation for the product sold. We assume that accepting returns incurs a cost to the retail stores, which is convexly increasing in the number of returned items in one period. Thus an ideal return policy must raise gift-buyers' valuations and help spread out the returned items over time. Assuming that high-valuation gift-buyers have less discretion about their shopping days than low-valuation gift-buyers and regular buyers, we obtain the following results: (i) the equilibrium price rises before the holiday and then falls deeply after the holiday, if high-valuation gift-buyers cluster in the second period, and if their population is not too small relative to the population of low-valuation gift-buyers; (ii) in the duopoly case, the post-holiday price deals are determined in a mixed-strategy pricing equilibrium, in which the depth of price dealing is positively related to the level of and negatively related to the variation in the gift-buyers' valuations.

4 - How Do Purchase Behavior and Seller Strategy Differ During the Holidays?

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We investigate how consumer purchase behavior and seller strategy differs during the critically important holiday season - the time between Thanksgiving and Christmas, as compared to the rest of the year. We focus on how consumer purchase behavior is influenced while purchasing gifts under time pressure during the holidays. We analytically model the impact of the holiday season on a retailer's profit-maximizing choice of price and service quality. We assume that consumers have a higher average marginal valuation for quality during the holidays and that consumers incur a higher average marginal disutility from transaction costs during the holidays. Our model predicts that the retailer raises its equilibrium quality of service

and also charges a correspondingly higher price during the holidays, leading to higher profits during the holidays. Also, consumer surplus increases during the holidays, despite the higher prices. This argues against the dead-weight loss of Christmas identified in prior research. We empirically support our analysis with a field study of online sales of toys, movies and video games on eBay, during and after the 2006 holiday season. We find that consumer willingness-to-pay, as measured by winning bids in auctions, is relatively higher during the holidays. Second, consumers experience a greater marginal disutility from incurring transaction costs during the holidays. Consumers show a greater preference for the fixed-price, buy-it-now channel during the holidays and pay relatively higher prices to hedge against the risks of not winning the item or receiving it post-Christmas. Third, we empirically demonstrate that retailers raise prices during the holidays.

■ SD04

Port Alberni

Service Evaluation

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1 - Measuring Preferences for Services – An Empirical Study in the Airline Industry

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Despite the fact, that in recent years services dramatically gained in importance in almost every industry, there are only a few attempts in market research to take the specific characteristics of service into consideration. In particular, when measuring preferences or willingness-to-pay, researchers and academics alike assume that every product or service attribute can be reliably evaluated by potential buyers during purchase decision. But this assumption is only justified for most physical products, which normally can be specified by various search attributes (e.g. size or weight). In contrast, many services are characterized by a large number of experience and credence attributes. As a result, customers often only have expectations of the actual attribute levels. This is one of the main reasons why widely used preference measurement techniques lead to poor results and hence suboptimal marketing decisions in the service context. As a first step, based on expected utility theory, we recommend a modification of current measurement approaches using a new variant of the hierarchical conjoint analysis. To integrate individual quality uncertainty, five attributes representing the SERVQUAL dimensions are added to an existing conjoint design that is predominantly described by a set of search attributes. Additionally, the subjective quality expectations are collected via expected probabilities for each uncertain level of the new attributes, in order to determine expected utility. Empirical results of a study analyzing preferences towards national flights demonstrate that the integration of subjective expected probabilities for each uncertain level of the five quality attributes leads to a significant ($p<0.001$) validity gain of 12.77% when predicting the purchase behavior.

2 - The Effects of Service Innovation on Customer Satisfaction and Firm Value

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As economies in developed countries are increasingly driven by services, the introduction of new services to satisfy customers and improve firm value is becoming a critical issue for managers in both services- and goods-dominant firms. Indeed, the member companies of the Marketing Science Institute have identified service innovation as one of the priority research topics for scholarly research. However, prior research on innovation has primarily focused on goods, leaving important research questions relating to service innovation open. We empirically investigate how service innovation influences customer satisfaction and firm value, while controlling for both firm- and market-specific factors. Furthermore, we examine how these effects vary across different types of service innovations (market creating versus non-market creating) and across different types of firms (services- versus goods-dominant). We develop a model of simultaneous equations that link service innovation, customer satisfaction and firm value. We estimate our model on a unique panel data set that we assembled from multiple data sources across multiple industries. Preliminary findings indicate that while service innovation does not have a direct effect on customer satisfaction, it has a lagged positive effect on firm value. Our findings offer executives of both goods- and service-dominant firms important insights about the value of different types of service innovations for their companies.

3 - Practice, Perceived Quality & Consumer Choice: The Impact of Service Failures During Online Shopping

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This paper reports the results of a series of online shopping experiments that examine the interplay between repeated store choice, perceptions of store quality, and service failures. We find a powerful reinforcing effect between store choice and perceptions of quality. Specifically, each time a consumer chooses a store his or her perception of the quality of that store increases, which in turn increases the probability that the same store will be chosen on the next shopping occasion. As a result, with repeated use consumers can develop strong preferences for particular stores, because they come to perceive those stores as being of higher quality - even though objectively the quality of the competing stores is equivalent. When a service failure occurs it has a negative effect on perceived quality, which reduces the probability of choosing that store again in the future. However, this effect is moderated by the number of times that a consumer has used the store before experiencing the service failure, such that a longer relationship reduces the probability of switching. We analyze the data with a series of simultaneous (bivariate) regression models that include cross lagged and contemporaneous predictors and subject-specific random effects. Throughout our analyses, we include control variables based on individual difference measures (technology comfort, need for cognition, need for change, decision making style) as well as demographic characteristics (age, gender, native language). We conclude with a discussion of the theoretical and practical implications of our findings.

4 - Identifying Non-Linear Effects of e-Service Quality Dimensions on Customer Satisfaction

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The literature on service quality has focused on identifying how the performance of service providers on the attributes on which services are evaluated by consumers drives measures of overall service performance, such as customer satisfaction. An initial assumption that customer satisfaction would be linearly related to performance on service attributes has also been challenged. Following the Kano, et al. (1984) approach to product quality, service researchers have suggested that service attributes can be classified, based on the linear or general increasing or general decreasing shape of their observed response functions, into one-dimensional, attractive, or must-be attributes. More complex forms of non-linearity, such as the satisfaction-maintaining dual-threshold function have also been proposed. Empirically identifying a particular form of non-linear relationships is not easy. This research uses crossed service provider by respondent data to examine the shape of the relationships between e-service attribute performance and overall customer satisfaction. Non-linearity is more often found for principal components than for individual attributes, for residualized data that controls for respondent scale use than for observed data, and for bivariate analysis than for simultaneous analysis. The non-linearity characteristically observed is negative cubic, identifying a satisfaction-maintaining dual threshold response function, not general increasing nor general decreasing returns. This result calls into question the assumer applicability of the Kano model to e-services.

■ SD05

Grand C

The Role of Network Externalities in Diffusion

Chair: Ozge Dilaver Kalkan, Lancaster University, Lancaster University Management School, Department of Economics, Lancaster, LA1 4YX, United Kingdom, o.dilaverkalkan@lancaster.ac.uk

1 - Replacing Household Durables – Does Consumer Innovativeness Matter?

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Replacement purchases have a huge impact on the overall success of durable products such as televisions, notebooks or digital cameras. Companies like Whirlpool, Siemens and Sony want to know: When are

consumers likely to purchase? Which consumers can be encouraged to make earlier replacement purchases? What factors drive these purchases? Yet replacement purchases have received relatively limited attention in new product diffusion research. Only a handful of studies have examined the drivers of replacement purchases. Although consumer innovativeness is recognized as the central consumer characteristic in studies of product adoption, research has yet to investigate its impact on replacement purchases. We explored empirically whether consumer innovativeness influences the timing of replacement purchases. We also re-examined the impact of other household characteristics by investigating their differential impact on replacements forced by failure versus discretionary replacements of working units. For our investigation we conducted a survey of the purchase behaviour for 8,077 households across six durable products: TV, VCR, DVD player, notebook, PC and digital camera. We contribute to diffusion research in two ways: Using hazard models we demonstrate that consumer innovativeness is a strong driver for the timing of discretionary replacements but not for forced replacements. We show the strength of this influence varies between products and household types. Second, we identify strong asymmetric effects of household characteristics between forced and discretionary purchases. Our results indicate that durable goods managers should not only pay special attention to innovative consumers when launching new products, but also when marketing to replacement buyers.

2 - Digital Divide From the Perspective of Bass Model

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As new products and services emerging from information and communication technology (ICT) quickly penetrated various consumer markets at the turn of century, there have been concerns that the diffusion of such products and services may replicate sociodemographic and/or socioeconomic inequality in any given market. Since ICT is taken as an important facilitator of productivity enhancement and knowledge sharing, such inequality has been highlighted as a potential multiplier of social inequality. The problem has been alarmingly labeled as "digital divide". Prevalent as the Bass (1969) model is, however, there is very little work in the marketing science field that directly looks at the digital "divide", a typical diffusion issue. Furthermore, most of the empirical studies that attack the digital divide phenomena in other research fields analyze the issues from a cross-sectional perspective, whereas the rare longitudinal studies utilize ad hoc, less well-defined/developed models and seem to ignore the existence of the Bass modeling framework. We conduct a comprehensive analysis on the of ICT product/service diffusion in consumer markets based on the Bass model foundation. Empirically focusing on the diffusion of mobile phones, personal computers, Internet services, etc., the research attempts to generalize current Bass-related diffusion models for the study of both diffusion differences among segments in the local market (i.e., digital divide within a society) and those among countries of various backgrounds (i.e., digital divide on an international scale).

3 - A Consumer-based Social Interaction Model for Diffusion of Innovations

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Bass (1969) type models typically focus on forecasting diffusion at the society level based on innovation and imitation parameters. Other related studies (Bonus, 1973; Horsky, 1990) regard adoption as a utility maximization decision, and diffusion as adoption by heterogeneous society members. The game theoretic literature (Reinganum, 1981) suggests in a business context that the rank of adoption matters in this utility maximization. This paper uses this ranking framework and aims to model interactions between consumers during diffusion. It is argued that, at any point in time, the benefits of adoption vary with the number of previous adopters, and motivations for adopting earlier or later than others cause interactions between consumers. Four different forms of interactions, which are identified in another research (some of them are also raised in literature), are modelled to co-exist during diffusion. The relevance of a given form of interaction to an individual is assumed to depend on his or her attributes. The model is simulated by randomly assigning sets of attributes to pseudo-consumers, in line with pre-defined population frequencies. The outcomes of simulations repeated with different sets of frequencies are compared in terms of diffusion patterns and timing. This analysis contributes to the discussions on cross-country differences in diffusion by demonstrating the possible implications of various attributes and the model is helpful for understanding different market segments' motivations for adoption.

Overall, the paper suggests a different explanation to the diffusion process by combining several ideas raised in literature and allowing multiple dynamic effects to operate.

■ SD06

Grand B

Methodology: Data Management and Collection

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1 - Enhancing Marketing Research Through Management Information System Concepts

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Marketing deals with the interaction of a few very highly complex entities (most basic are consumer and product). The complexity not only derives from the inherent nature of the entities but also on the complex ways in which entities interact. The purpose of marketing research is to gather data on the attributes of the entities, the attributes of the relationship among entities, and the attributes of these attributes. Since marketing research developed prior to the era of contemporary information technologies, most of research data are fragmented, collected piece-meal at different points in times and by a plethora of commercial and non-commercial sources. Research in itself being extremely expensive and with primary data costing eleven times as much as similar secondary data, there could be substantial savings in integrating all existing data. The entity relationship model and competing technologies present a means to model these entities and their relationships. The incorporation of E-R modeling in reengineering the marketing research function could be a valuable addition in the future development of marketing research. This study is a first attempt and involves gaining a good understanding of the commonalties and variations in marketing research by building a generic model of research. The long-term goal is to build a web-based marketing research electronic encyclopedia which will function in the following ways: (1) given a marketing problem, the encyclopedia will locate all sources of data relevant to the problem, (2) given different complementary data sources, the encyclopedia will provide users with the processing power to integrate different sources coherently, and (3) the encyclopedia will be a dynamic entity that can grow and evolve.

2 - A Spatial Framework to Control for Biases in Cross-Cultural Customer Satisfaction Measures

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Multinational companies routinely gather customers' feedback from different countries and regions. However, customers living in different regions usually have different cultures, religions, and ideologies, which can result in inherent biases in their responses to the customer satisfaction surveys, in addition to individual level biases. Accounting for response biases in customer satisfaction measures in cross-cultural setting and making customer satisfaction measures comparable are significant issues for multinational firms. Extant research has identified several response styles which contaminate customer satisfaction measurement and has provided several methodologies to account for and remove such biases. In this paper, we propose a spatial framework to control for these biases in cross-cultural distributors (customer) satisfaction measures in the context of multi-level marketing operations. We define a conceptual space using objective measurements, such as sales momentum and time spent on business by distributors, to act as anchors. The relationship between distributors' (customers) overall satisfaction and other explanatory variables varies across this conceptual space. Thus, distributors' subjective responses are inter-related within the context of their own observable behaviors. It allows companies to compare distributor satisfaction scores at individual level from different nations/regions on the same basis. We use geographical weighted regression to estimate the "spatial" dependence among the variables. Based on survey data from a large multi-national multi-level marketing firm operating in different cultural settings, we empirically compare our proposed methodology with extant methods and illustrate the relative merits of using our methods in this context.

3 - Distinguishing Between Learning and State Dependence – A Simulation Based Study

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In this paper, I investigate the potential problems if dependence and learning models are not distinguished using Monte Carlo simulation. I simulate consumers' purchase or non-purchase choices and compute the maximum likelihood estimates of important demand coefficients. The rate of misspecification is computed by comparing log-likelihood and BIC values. Starting with the underlying model being a simple learning model, I find that it is more difficult to disentangle the two models when the perception bias is close to zero. An introduction of heterogeneous prior belief in quality alleviates the misspecification problem. Moreover, when I consider the unobserved heterogeneity in true quality among consumers, a greater variety in true quality helps decrease the chance of misspecification, but a smaller variety in true quality can worsen the problem. Ignorance of this heterogeneity biases the coefficient estimates. The estimate of price sensitivity will be biased downward when prior mean belief is smaller than the true mean quality and biased upward when true quality mean is greater than the prior mean belief. I also show the importance of information obtained from the early stage of learning in order to specify the proper consumer choice process. On the other hand, the choice data generated from a state dependence model are less like to be identified as learning behavior when the coefficient of lagged purchase becomes bigger. In the last part of this paper, I briefly explore the composite model, considering learning and state dependence simultaneously. The composite model shows good fit on simple models without heterogeneity. However, as the parameter space becomes more complicated, the obtained estimates deviate more from the true parameter values.

■ SD07

Grand A

Segmentation Research

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1 - A Conjoint Model For Finding Segments and Heterogeneity Based on Individual Preference

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Conjoint analysis, designed to estimate individual preference and the relative competition among brands, is one of the most widely-used quantitative methods in Marketing Research. In addition, hierarchical Bayes inference is a favored approach because of its superior in recovering individual part-worths. However, current application of hierarchical Bayes inference is not without drawbacks, because consumer heterogeneity is assumed to follow a normal distribution. The normal distribution has its own characteristic such as unimodal, symmetric and inverted U shape, which might lead to bias or limitation in part-worth density inference. Alternatively, the mixture of normal distributions is a more flexible and general approach in modeling consumer heterogeneity. In this study, a multivariate mixture of normal distributions is applied in hierarchical Bayes model as an assumption to modeling consumer heterogeneity. The clustering methods for finding homogeneity segments in multivariate mixture of normal distributions will be introduced in this study. In conclusion, the use of mixture of normal assumption in modeling consumer heterogeneity could help researchers to find consumer segments and heterogeneity in a conjoint model based on individual attributes preference.

2 - A DEA-based Panel Model Illustrated by an Application to Advertising Efficiency

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Recently, marketing activities have increasingly been evaluated by means of efficiency. In order to analyze if any actions to enhance marketing efficiency have actually been successful, the analysis of efficiency developments is necessary. Data Envelopment Analysis (DEA), a Linear Programming-based method to assess the relative efficiency of so-called decision-making units (DMUs), has been identified as one suitable approach in the marketing context. To analyze efficiency developments, DEA also offers dynamic variants, based on panel data sets. Unfortunately, all these models fall short in considering the hierarchical data structure of panel data sets. We develop our own model called DIS-DEA which eliminates this shortcoming, and describe it as a representative of any DEA panel model class. More specifically, DIS-DEA is a variant of Window Analysis (WA), the most prominent model in the field. In contrast to WA, DIS-DEA generates DMU-specific efficiency scores for a window (a sequence of periods) in the aggregate, but is also able to disaggregate this score into period-specific components. Although superior to existing models from a conceptual point of view, we apply our model within the context of advertising, analyzing ad efficiency of 52 companies in the U.S. The results of our model are consistent with the descriptive analysis of the original data, whereas WA yields counterintuitive results.

3 - Influence of Consumers' Motivation, Opportunity and Ability on the Validity of Conjoint Analysis

Uta Herbst, Doctor, University of Hohenheim, Marketing Department 510 D, Schloss Osthof Ost, Stuttgart, BW, 70599, Germany, herbst@uni-hohenheim.de, Joachim Pelz, Markus Voeth

The representation, explanation and prediction of purchase decisions are among the core tasks of marketing. In this regard, a particularly appropriate method which is widely applied in both research and practice is Conjoint Analysis (CA). Nevertheless, resulting validities of CAs are still improvable. In this effort the investigation of determinants influencing the validity of CAs became established early in preference measurement research. Whereas in this context the majority of studies have investigated different method-related determinants (such as the number of level of attributes or the parameter estimation models etc.), other studies have analyzed the influence of personnel-related factors (such as age, level of education etc.). Within the latter group a lack of research must be seen in the fact that the test subjects' motivation, opportunity and ability (MOA-model) have not been simultaneously linked to the validity of conjoint analyses yet. However, especially these personnel-related aspects should be considered within the context of conjoint analysis validity, as they determine consumer information processing. Therefore we conduct a comprehensive cross-market study that investigates the influence of MOA on the validity of two leading conjoint variants based on a structure equation model (SEM). Our results confirm the assumption that the validity of conjoint analyses depends significantly on the individual levels of consumers' motivation, opportunity and ability.

4 - Visual GSCA: A Graphical User Interface Software Program for Generalized Structured Component Analysis

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Generalized Structured Component Analysis (GSCA) (Hwang & Takane, 2004) represents a component-based approach to structural equation modelling in which latent variables are defined as weighted composites of observed variables. GSCA does not suffer from the occurrence of improper solutions and the problem of latent score indeterminacy. Moreover, it does not require the assumption of multivariate normality of observed variables and large samples for parameter estimation. Furthermore, the method employs a global optimization criterion that is consistently minimized for the estimation of model parameters. This, in turn, serves to facilitate the calculation of measures of overall model fit. GSCA is now implemented into a free software program called Visual GSCA 1.0. This program provides a graphical user interface whereby path analytic models are easily drawn in the program window and their GSCA parameter estimates are subsequently displayed in the same window. A brief introduction to GSCA is first presented. Next, the use of VisualGSCA 1.0 is demonstrated step by step through an empirical application.

■ SD08

Port Hardy

Models of Consumer Learning

Chair: Paul Messinger, University of Alberta, School of Business, 3-20E Business Building, Edmonton, AB, T6R2A4, Canada, paulm@ualberta.ca

1 - Consumer Learning, Word of Mouth and Quality Competition

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In a competitive market, consumers are not well-informed about true service level offered by firms. Instead, consumers choose between firms based on their past experience and word of mouth (WOM) from their acquaintances. Thus, firms' market shares should depend on not only their product or service quality, but also choice behavior through consumer

learning and WOM. How does this dependence affect their market shares? When should firms encourage WOM? We address these questions by developing a multi-period model of consumer learning, WOM and choice behavior in response to uncertain service offered by firms. Using this model, we show that lower quality firms are overpenalized in their market share and higher quality firms are overcompensated due to the effect of consumer learning on choice behavior. We show conditions in which WOM reduces or increases this difference in market shares. Our results are useful to retailers and marketers of experience or repeat purchase products.

2 - ShopBots and Retailers' Strategies for Price Concealment

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The Internet has radically reduced the marginal costs for collecting and distributing information and the resulting price transparency was expected to be a key driver towards an efficient market (Brynjolfsson and Smith 2000). So called "ShopBots" are key players in the process of data collection and distribution of product and price information. Such websites allow consumers to compare product offerings of retailers and can thereby significantly reduce consumers' search costs. Although it was expected that these comparisons would pull prices down to a single market price, prices in online markets have not even come close to those expectations. The question of "why comparisons via ShopBots don't pull prices down" is addressed in this paper. On the one hand, a larger number of retailers included in the listing of ShopBots and thereby a large number of easily comparable product offerings lead to a more competitive market. On the other hand, there are several reasons for ShopBots to generally cover only a small sample of the Internet, and collect and report information biased in favour of certain retailers (Bradlow and Schmittlein 2000). Additionally, even though retailers were not able to stop the development towards more transparency, they found suitable strategies to encounter the total annihilation of information asymmetry. In this paper we show empirically that retailers successfully pursue strategies making products and prices hardly comparable. Focusing on 481,000 offers from a leading German ShopBot we find a notable amount of bundles in highly competitive product categories. Finally we present that retailers exploit consumers' biased perception in terms of partitioned prices, a division of the price into a large base price and comparatively small shipping costs.

3 - How Used Markets Facilitate Consumer Learning

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We examine a model that addresses a key information asymmetry present for "slow-to-evaluate" experience products. The problem is that, ex ante, consumers do not know whether they will like a novel product, and, in the absence of used markets, ex post, some consumers end up with products they do not like. In this context, used markets reduce the expected costs associated with consumers learning their tastes in at least two ways. First, consumers have recourse to resell a new product if they do not like it. Second, consumers can try a used product, before investing in a new product. We demonstrate this type of functioning of used markets in a dynamic model that incorporates such explicit interactions between used and new markets. We derive the steady state prices and the optimal dynamic price paths to the steady state. We interpret the solution for various cases and provide examples of scenarios for particular parameter combinations to explore comparative statics and dynamics. We show that such solutions exist for cases that would otherwise result in market failure in the absence of used markets, and we demonstrate the critical role of used markets in facilitating consumer learning. We also discuss managerial implications of the model and other institutions and practices that address the general consumer learning problem for "slow-to-evaluate" products.

■ SD09

Junior B

Factors Influencing Product Line Innovativeness

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1 - From Invention to Innovation: Technological Drivers of Product Portfolio Strategy

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Managing innovation is one of the most important issues facing business today. The major difficulty is that managers must do so against a constantly shifting backdrop — technologies, competitors, and markets constantly evolve. Then, a critical challenge is separating distractions from real opportunities/threats as they set direction through innovation/marketing strategy and select optimal portfolio projects. To do so, it is critical to understand the drivers of product portfolio. Specifically, what drives product portfolio innovation/marketing strategy? How can we facilitate successful implementation of these strategies? To address these questions, we empirically analyze the effects of technology portfolio on the firm's product portfolio strategy. To understand the linkage, we specifically focus on introduction and pioneering intensities of product portfolio. In order to characterize a firm's technology portfolio, we examine the effects of a firm's patent stock on portfolio strategy. In addition, by decomposing the patent portfolio into primary and secondary ones, we further investigate the effects of technology concentration and specialization on the product portfolio. Thus, the purpose of this paper is to investigate the key technological drivers in product portfolio management as it relates to innovation and marketing strategy, enabling us to design a better portfolio strategy. This study investigates these questions in the context of the biomedical device industry using 15-years of product portfolio and technology (i.e., patents) portfolio data. By understanding these strategic drivers of product portfolio, we can develop better guidelines for optimizing portfolio and innovation strategies.

2 - The Effects of Challenging Conditions on Product Innovativeness

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While one may assume that difficulties and challenging conditions are likely to hinder innovative processes, we suggest that in certain cases it is quite the opposite. We contend that challenging conditions caused by market disintegration processes (i.e. when a global market transforms into detached markets) positively affect product innovativeness levels. Conversely, market integration processes (i.e. when separate markets merge into a single market entity), which have been accelerating in recent decades, negatively affect innovation. In addition, we postulate that the extent of reliance on previously existing technology, the former largely stemming from market integration trends, has an inverted U-shape relationship with product innovativeness levels. By using two different yet complementary approaches, we provide a synoptic analysis of innovation levels measured by rigorous economic data on the one hand, and by subjective product innovativeness evaluations as perceived by consumers, on the other hand. We find that market integration trends in recent decades negatively affect innovation levels in most product classes, while market disintegration processes during the first half of the 20th century, demonstrate a positive effect on product innovativeness. Nonetheless, and contrary to most product classes, products which are communications and computation related demonstrate higher innovation levels as globalization increases. Additionally, we find that both high and low levels of reliance on preexisting technologies negatively affect innovation levels, while moderate levels of such a reliance demonstrate a positive effect on innovation.

3 - Relationship Quality and Retailer's Dependence as Moderators of Profit Drivers of Retailer's New Pro

Peter C. Verhoef, Professor of Marketing, University of Groningen, P.O. Box 800, Groningen, GR, NL-9700 AV, Netherlands, P.C.Verhoef@rug.nl, Laurens M. Sloot, Yvonne van Everdingen

Yvonne van Everdingen (Erasmus University Rotterdam) Laurens M. Sloot (University of Groningen and EFMI Business School) Peter C. Verhoef (University of Groningen) Abstract Brand manufacturers regularly introduce new products in the market. To achieve a sufficient sales level distribution is essential. Retailers will consider the expected profitability of the new product as reflected in profit drivers, such as gross margin, trade sup-

port, consumer support, product uniqueness, and store brand cannibalization, as a very essential issue in their adoption decision. To further enhance adoption, manufacturers invest in good relationships with retailers, while they may also exercise their power. In this paper, we specifically consider how both relationship quality and retailer's dependence from the manufacturer moderate the effect of some profit-drivers. We specifically argue that relationship quality decreases the impact of profit-drivers on the retailer's new product adoption. For retailer's dependence, we argue that it may also decrease the importance of some profit drivers (i.e. trade support), while it may increase the impact of store brand cannibalization. Using a sample of 392 new product adoption decisions among 4 Dutch retailers, we estimated a random effects logit model to explain retailer's adoption decision. Our results indeed show that an improved relationship quality tend to decrease the impact of profit drivers, while the moderating effect of retailer's dependence differs between profit drivers. Key-words: adoption, logit model, retail, relationship marketing, store brands, power

■ SD10

Junior A

Altering Channel Relationships

Chair: Eunkyu Lee, Associate Professor, Syracuse University, Whitman School of Management, 721 University Avenue, Syracuse, NY, 13244, United States of America, elee06@syr.edu

1 - Conversion Franchising: Examining Determinants of the Likelihood of Conversion

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Conversion franchising, franchisors recruiting franchisees from rival systems, has been offered as a strategy for gaining competitive advantage. While some scholars endorse the franchisors' use of this strategy, existing literature in entrepreneurship and franchising provides insufficient insights into benefits, reasons, or motivations of the franchisee as a target of this strategy. Research suggests the franchisee's decision to convert depends on the levels of dependence on benefits offered by the existing franchisor. This paper adopts the view that in their decision to convert, franchisees consider not only relational benefits but also relational costs, brand support and satisfaction with the management of power offered by the incumbent agreement, as compared with the alternative franchise agreement on offer. This study employs a scenario based experimental approach to investigating the contribution of these four factors to the likelihood of conversion. Responses obtained from 415 franchisees suggest that offering a more attractive franchise agreement increases conversion likelihood, especially if the alternative offer is better than the existing offer in terms of brand support and relational costs. Moreover, the results suggest an interaction effect between satisfaction with the management of power, relational benefits and relational costs as well as a disparity in effect sizes based on industry types and franchising experience. These findings not only provide a platform for further research into motivations for conversion franchising, but also provide insights for franchisors employing conversion franchising as a means for growth and attaining competitive advantage in various industries.

2 - Inter-manufacturer Competition: Viability of a Store-in Store-format

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A manufacturer has (at least) three distribution options. (1) It can sell its products to a retailer who resells to consumers (resale); this option raises the issue of coordination. (2) It can sell directly to consumers through its own outlet (direct); this option comes at the expense of fixed costs, such as rent, for operating an outlet. (3) It can sell directly to consumers while located in the venue of a retailer V often a department store V that sells merchandise from competing manufacturers. This "store-in-store" (SIS) option, which entails paying a percent of net revenue to the retailer as rent, is a hybrid of the resale and direct options. Convoluting these results is the fact that the direct option may generate less traffic for the focal manufacturer than do the resale and SIS options. Store-in-store is widely observed, especially in large department stores, but it has not been examined in the academic literature. We employ a stylized model of a focal manufacturer and a competing (a representative) manufacturer that sells through a monopolistic department store. With this model we explore the conditions under which each of the three options arises as an equilibrium distribution strategy. The direct option is the worst for the retailer, while the resale option is the best for the retailer; however, it is sub-optimal for the manufacturers if products are sufficiently substitutable. SIS is viable when competition between manufacturers' products is sufficiently intense. The magnitude of the traffic effect alters the critical substitutability values at which each option is a stable, Nash equilibrium strategy. We also show the extent to which each option approaches the globally coordinated solution.

3 - Vertical Extension Through the Factory Outlet Channel: Synergy or Conflict

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In the last decade, factory outlets have gone through significant change and have become an attractive distribution channel for retailers. Once considered a dumping ground for unsold or defective merchandise, outlets have gained prestige as retailers started seeing this channel as a means to reach bargain-conscious consumers and spread awareness of their brand. Today, many retailers design and produce products solely for the outlet stores and offer lower quality products at lower prices through this channel. Offering a vertically differentiated alternative channel can enable the retailer to achieve market expansion and increase sales. One concern is that recently we are witnessing more and more consumers using multiple channels of the same retailer. The literature has mixed predictions about the behavior of consumers who interact with the retailer through both the factory outlet channel and the retail channel. A number of studies suggest that a multi-channel environment enhances loyalty and multi-channel customers have higher expenditure levels than single channel customers. Brand extension research, on the other hand, suggests that consumers' experience with the outlet channel might be detrimental for the retail channel. Experience with lower quality products under the same brand name can result in reduced valuations or loyalty for the original brand. Using customer level transaction data from a specialty apparel retailer and a joint model of channel selection and expenditure, we examine the behavior of multi-channel consumers through the factory outlet channel and the retail store channel. Our objective is to investigate to what extent the factory outlet channel synergizes with the retail channel and to what extent it cannibalizes the retail channel.

4 - Cross-brand Pass-through of Promotional Allowances: An Equilibrium Analysis

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Anecdotal evidence suggests some retailers might engage in cross-brand pass-through of promotional allowances. In this practice, a retailer receives a lump sum allowance from the manufacturer and spends a part of it not only for promoting the manufacturer's own brand but also for promoting competing brands. On surface, such a practice appears to be the retailer's betrayal of the manufacturer's expectation, which should diminish the effectiveness of the manufacturer's promotional effort. Nevertheless, manufacturers donít seem to be motivated to "crack down" this practice. The existing studies of cross-brand pass-through focus on pricing issues, providing limited insights into the cross-brand pass-through of promotional allowances. In this study, we develop a game-theoretic channel model, similar to the one used by Kim and Staelin (1999), to investigate the following research questions: a) Are retailers better off by engaging in cross-brand pass-through of promotional allowances? b) What are the factors affecting the retailer's decision on the own- and cross-brand pass-through rates? c) How does this practice affect the profitability of the manufacturers? d) Is cross-brand pass-through beneficial or detrimental to channel coordination? We explore these questions by comparing the equilibrium solutions between the scenarios with and without the possibility of cross-brand pass-through. Our analysis shows that retailers are better off with cross-brand pass-through only under certain conditions. In contrast, manufacturers are always better off by not preventing the retailer's cross-brand pass-through practice. Interestingly, we also find that cross-brand pass-through of promotional allowances enhances channel coordination, evidenced by improved total channel profits.

■ SD11

Port McNeill

Marketing Metrics

Chair: Mario Rese, Affiliate Professor, ESMT European School of Management and Technology, Schlossplatz 1, Berlin, 10178, Germany, rese@esmt.org

1 - Risk of Customer Relationships: Concept and Measurement

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Customer equity (CE) has been identified as a suitable metric for assessing the efficiency of marketing resource allocation, especially in the service sector (e.g., Rust, Lemon and Zeithaml 2004; Berger et al. 2006). Defined as the aggregation of individual customers' lifetime values (CLVs), the estimation of this metric strongly depends on the accurate prediction of customers' cash contributions (e.g., Gupta et al. 2006; Malthouse and Blattberg 2005). Surprisingly, the risk associated with investment in customer relationships has not yet received greater attention in CLV modeling, although it has regularly been argued that the CE / CLV concepts should be enriched by a risk component (e.g., Zeithaml et al. 2006; Hogan et al. 2002; Hopkinson and Lum 2002). In light of this discussion, the objective of this paper is to conceptualize and measure a firm's risk of a customer relationship. Opposite to the one-dimensional and static view of risk in a financial asset context, we regard customer relationship risk as a multidimensional and dynamic construct dependent on a customer's latent states of behavioral loyalty. We see a customer's current latent loyalty state as the reference point for risk assessment and operationalize the magnitude of risk by her movement activity between latent states over time, modeled as a stage development process. Using behavioral and attitudinal data from the customer base of a leading do-it-yourself retail chain in Europe, we show that this movement activity between latent behavioral loyalty states is influenced by the absolute changes of satisfaction and commitment. Furthermore, we provide evidence that these effects weaken with increasing retention time. We derive our results via latent transition analysis (LTA; e.g., Nylund 2007).

2 - Identifying Growth Potentials with Internal Benchmarking Across Product Categories and Markets

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A common question facing many multicategory, multi-market retailers is that, "How well are we doing in each market we serve, for every product category we sell?" Answers to this question are important because the gap between realized sales and potential sales provides an indicator as to how much growth opportunity a retailer might have in each market for each product category. To address this challenge we propose a modeling framework that allows the retailer to benchmark its sales in one market and category against its own sales in all the other markets and categories, factoring in observed as well as unobserved variables that might influence potential sales. What our approach produces is a measure of relative sales efficiency, reflecting the gap between observed category sales per customer in a market and an estimated "sales frontier," which is largely shaped by observed sales per customer in other categories and markets. Such a cross-category cross-market internal benchmarking approach is valuable as well as practical, because it allows retailers to identify short-term growth opportunities by product category and market, using readily available data from their own customer databases.

3 - Measuring the Financial Outcome of Marketing: Matching Performance Measures with Marketing Actions

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More and more companies are adopting the idea of value-based management. Consequently, marketing also has to show its contribution to shareholder value. The rule is simple: no financial performance contribution, no marketing budget. Therefore, marketing has to prove the causal link from marketing actions to value-based performance measures. The crucial point is that we have to evaluate totally different types of marketing actions. Some are one shot (e.g. events), some are continuous (e.g. customer loyalty programs), some try to directly influence the buying behaviour (e.g. discounts), some target only a change in image (e.g. advertisement) and most of the actions are realized in combination (e.g. a loyalty program plus advertising etc.). Therefore, the methods to identify the financial outcome of marketing actions must differ. Our contribution to research is to somehow identify a best match between different marketing performance measurement tools, like time series analysis, event studies, cash flow based methods, etc. and the various marketing actions. We developed a classification scheme for marketing actions depending on their (i) perceived goal, (ii) frequency, (iii) time frame, (iv) degree of isolation (of the action) and (v) level of measurement. Each group of marketing actions will be discussed concerning its requirements on the performance measurement side. The final outcome is a toolbox for practitioners as well as researchers - "what to use when" in case of marketing performance measurement. The results integrate approved methods as well as relatively new ways of marketing performance measurement. Existing research challenges will be identified.

■ SD12

Parksville

B2B Customer Relationships

Chair: Douglas Bowman, Professor of Marketing, Emory University, Goizueta Business School, 1300 Clifton Road, Atlanta, GA, 30322, United States of America, Doug_Bowman@bus.emory.edu

1 - The Affect of Partner Relationship Management Systems on Supplier-partner Relationships

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This paper examines the impact of Partner Relationship Management (PRM) Systems on inter-organisational relationships within the ICT industry. Based on a series of case studies PRM systems were found to provide four key functions: Supporting the marketing of the suppliers products, Developing the expertise of the partner organization; Supporting the service supplied to the end customer, and managing the relationship between the supplier and the partner per se. An empirical study, based on a sample of 196 partner organizations, was carried to find the affect of the different elements of the PRM systems on partners commitment to its relationship with the supplier organization. Confirmatory factor analysis tested the reliability of the constructs in the model and a structural equation model tested the relationship between the constructs. All fit measures were strong. It was found that the PRM systems affect relationship commitment via three moderating elements. The relationship management elements create greater co-operation between the partner and the supplier. Marketing and customer service support create economic satisfaction for the partner. Technical development systems help lock-in the partner by increasing switching costs. These three elements in turn create relationship commitment.

2 - Network Characteristics, Decision Uncertainty and Exchange Norms; Evidences From China

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In a fiercely competitive environment, a strong exchange network has been considered as an effective way to reduce decision uncertainty. However, existing literatures primarily focus on the development of exchange network and its strategic effect on firm competition and rarely pay attention to understand the role of network characteristics. The primary purpose of current study is to understand how two exchange network attributes, network centrality and network density, affect a company's relational norm-developing intention in dealing with decision uncertainty. After reviewing relevant literatures, the authors propose two primary hypotheses. One hypothesis considers the direct effect of decision uncertainty on a company's relational norm-developing intention. Past research has suggested that decision uncertainty positively affect a company's intention to develop what Heide and John (1992) termed solidarity, flexibility, and information-exchange norms. Based on social embeddedness network studies, the other hypothesis argues that network centrality and network density will significantly moderate the relationship between decision uncertainty and a company's norm-developing intention. Data collected from 302 China local enterprises by mail survey. The authors applied hierarchical regression methods to test proposed hypotheses. The empirical results support our hypotheses and indicate that, for companies which located in the center of exchange network or in a highly dense network, there is a much stronger positive relationship between decision uncertainty and norm-developing intention. Based on our findings, this article provides its theoretical and practical implications to existing literature and practitioners.

3 - Relational Purchasing in Industrial Markets – The Role of Prior Experience and Choice Context

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With the paradigm shift from transactional to relational purchasing, suppliers are confronted with considerable restraints on customers' switching behaviour. The relational paradigm in industrial markets implies that most industrial sales are repurchases of products or services from a focal supplier. Thus, it is critical for suppliers to understand the determinants of customer switching behaviour, both to prevent and induce it. To contribute to this insight, we are developing a framework for industrial repurchase decision making which follows the logic of context dependent preferences. Hence, we take into account prior experiences with the focal supplier as well as context variables describing the new purchase situation and alternatives. Using choice-based conjoint and survey data collected from industrial buyers of telecommunication solutions, we are able to identify primary switching barriers and enablers within our model. Modelling the choice decision through a mixed logit model allows us to account for unobserved heterogeneity in switching preferences in addition to that portion of heterogeneity that is explained by the observed context variables. Considering preference heterogeneity guarantees a more realistic prediction of choice behaviour. The results imply under which circumstances firms a more likely to repurchase from the focal supplier or switch respectively. Consequently, suppliers are able to identify those customers with high probability to switch and therefore are able to address their customers' needs adequately in order to prevent or induce their switching.

4 - The Evolution of Vendor Performance on Continuity in Business Services Relationships

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This study investigates the relative effectiveness of relational selling/relationship building efforts, pricing actions, and competitor solicitation efforts over time on the continuity of a business-to-business services customer-supplier relationship. To date, the limited number of studies that have examined the influence of managerial actions or perceptions of managerial actions on the continuity of a business marketing relationship have been cross-sectional studies where the dependent variable is an (assumed) correlate of future behavior. The interest in this research is in understanding the determinants of the dynamics and what actions managers can and do take to increase or decrease the likelihood that a supply relationship continues or is dissolved. The focus is in uncovering the effects of a number of cross-sectional and time-varying covariates on duration. The rate at which customer-supplier relationships dissolve is modeled as a function of three components. First, the baseline hazard function captures the dynamics of duration - how the time since the relationship was established affects the likelihood that it will fail. Second, covariates including observed organizational characteristics, a service provider's marketing and relational selling efforts, and competing suppliers' solicitation efforts. Third, unobserved heterogeneity caused by potentially important missing variables is considered.

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Bucklin, Randolph E. TA17, FC01
Bueschken, Joachim TA09, SC06
Buratto, Alessandra TB14
Burianek, Ferdinand TB09
Burke, Paul TA12, SA03
Burke, Raymond FB07
Bussiere, Dave TA04
Buzbas, Erkan Ozge TC06

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Caballero, Omar SA12
Calabretta, Giulia TB05, FA03
Calantone, Roger TB13
Caldieraro, Fabio FC02
Camacho, Nuno FD06
Campos, Carlos TA12
Cao, Yong TA16, TB10, TC16
Cattaneo, Eleonora TB15
Cela, Jimmy SB14
Chakravarti, Dipankar TA08
Cha, Kyoung Cheon FB16
Chandrasekaran, Deepa TC05
Chandy, Rajesh FC05, FD05, FD13
Chan, Elisa Ka Yan FA04
Chang, Chun-Wei SB10
Chang, Dae Ryun FD10
Chang, Joseph FA13, FD13
Chang, Sue Ryung TC10
Chan, Tat TA01, TC12, FC03, SA10
Chatterjee, Patrali SC12
Chatterjee, Rabikar TC13
Chatterjee, Sharmila SB05
Chattopadhyay, Amitava TC08
Che, Hai FA14
Chen, Cathy Y. TA12, SC12
Chen, Ching-I TA15
Chen, Chyi-Mei TB16, SD02
Chen, Hua-Ning SD05
Chen, Jiemiao SC14
Chennamaneni, Pavan TA16
Chen, Pei-yu FC05
Chen, Rachel R. TB10, FA02
Chen, Yubo TB04
Chen, Yuxin SB04, SB13
Chew, Patricia SB02
Chiang, Wei-yu Kevin FA10
Chidmi, Benaissa TC10
Ching, Andrew SA09
Chintagunta, Pradeep TA06, TB01, FB03, FD11,
Chiu, Chi-yue FD13
Choi, Jeonghye TC11
Choi, Jungwhan SB11
Choi, Pilsik FB06
Choi, S. Chan TC13
Choi, Sungchul SA04
Cho, Sungzoon FD09
Chou, Shan-Yu TB16, SD02
Chou, Shihyu FB15
Chou, Ting-Jui SB12
Chrzan, Keith TC07
Chu, Junhong TC13, FC11
Chun, Hae Eun TB08
Chung, Cindy M.Y. SB02
Chung, Tuck Siong FA11
Ciliberto, Federico FC14
Cillo, Paola FD13
Clark, Bruce TB10
Clement, Michel FB06, SC10
Collins, Colleen FA03
Conley, James G SA13
Coote, Len FB02
Cornwell, Bettina FB02
Corsten, Daniel FC07
Costa, Paulo FB09
Coughlan, Anne T. FC02
Coussement, Kristof SA12
Cowley, Elizabeth SB08
Croux, Christophe TA02, FB09, FB03
Cui, Charles C TA08
Cui, Geng SA11
Cui, Tony Haitao SD02

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Daher, Walid SA03
Danaher, Peter FB14
Darke, Peter SB03
Dasgupta, Srabana FB12
Dasgupt, Srabana FC10
Davis, James H. FC03
De Bruyn, Arnaud SC06
De Maeyer, Peter SC12
de Ruyter, Ko FA11
Dean, Angela SB06
Dehnad, Khasha FC06
Dekimpe, Marnik G. TB06
Deleersnyder, Barbara TC16
deLeon, Anthony SB05
Dellaert, Benedict FA11, FC11
Dellarocas, Chris FA01
Dempsey, Melanie TB04
Deodhar, Meghana FA11
Desai, Preyas FD02, SB14
Deshpande, Rohit FB15
Desiraju, Ramarao TA16, FA05
Despic, Ozren FC09
Devezer, Berna TC06
Dhar, Ravi SB06
Dhar, Tirtha SB03, SC09
Di Muro, Fabrizio TC08
Dilaver Kalkan, Ozge SD05
Ding, Jiali FB04
Ding, Min SB07, SB12
Dinner, Isaac TC02
Divakar, Suresh FC10
Dolansky, Eric FC12
Dong, Lingxiu TB16
Dong, Songting SB12
Dong, Xiaojing FB03, FD11
Donkers, Bas FC11, FD06, FD09
Dotson, Jeff FB07
Dotzel, Thomas SD04
Dou, Wenyu FA08, SC14
Downarowicz, Anna TB09
Draganska, Michaela TB01
Drechsler, Wenzel FD11
Droge, Cornelia TB13
Dube, Jean Pierre TB01, FD14
Dube, Laurette FC08, SC08
Ducarroz, Caroline TB03
Dukes, Anthony TA14
Du, Rex FD02, SD11
Du, Shuili SB13
Dutta, Shantanu FD10, SB10, SC05
Duvvuri, Sri Devi FA07, FB07, FC10

E

Ebbes, Peter SB01
Ebling, Christine SB04
Eckert, Jochen FB11
Economides, Nicholas FD15
Eisingerich, Andreas FD05
Elberse, Anita FB11
Elhorst, J. Paul FB16
Eliashberg, Jehoshua SA01
Ellickson, Paul TB01
Elrod, Terry TA07, TC07
Elsner, Mark SC01
Eng, Teck Yong FC13
Erdem, Tulin SC13
Erickson, Gary SB10
Evgeniou, Theodoros TC07

F

Fan, Yu FA16
Farinella, Giovanni Maria FC01
Farrell, Colin SB08
Fay, Scott FA02
Feinberg, Fred TC07
Fei, Qiang FB13
Feit, Eleanor TC07
Feldman, Ronen SA11
Feng, Jie FC04

Feng, Shanfei FA09
Finn, Adam TC08, FC13, SD04
Fischer, Eileen TC08
Fischer, Marc TB02, FC13, FC15
Fisher, Robert SC08, TB14
Fitzsimons, Gavan TC04, SC13
Fleder, Daniel FB11
Floh, Arne TC02
Fok, Dennis TC05, FA05, FC10
Foubert, Bram FD16
Foutz, Natasha Z. TB02
Franses, Philip Hans TC05, FA05, SA14, SB07
Frazier, Gary SA10
Frenzen, Heiko FC02
Frias, Kellilynn SC11
Frischmann, Tanja SD08
Fruchter, Gila E. FA02, FB03
Fruchter, Gila FB05
Fu, Guoqun FB04

G

Gabrielsen, Gorm FA03
Gal, Tali FC04
Gangwar, Manish TA14, FC16
Ganzach, Yoav TB04
Gao, Chongyan SB12
Gao, Ling FD08, SD06
Gao, Tao (Tony) FB14
Garber, Larry SA08, SC14
Garg, Nitika FD06
Gauri, Dinesh FD16
Gaur, Vishal SD08
Gaytán, Ayala SD01
Ge, Xin FB08
Gedenk, Karen TA08, SA04
Gensler, Sonja FD04
Gerstmeier, Eva TB12, FC01
Gerstner, Eitan FA02
Geyskens, Inge TC03
Ghose, Anindya FA01
Ghose, Sanjoy FA12
Ghosh, Bikram TB14
Ghosh, Mrinal TA11, SC11
Ghysels, Eric FC15
Gibbs, Richard SA10
Gielens, Katrijn TC03
Gigliotti, Adriana FA13
Gijsbrechts, Els TC03, FC12
Gill, Tripat FD07
Girju, Marina TA07
Giuffrida, Giovanni FC01
Glady, Nicolas FB09
Godes, David TA11
Godfrey, Andrea FA11
Goettler, Ron TC01
Gögdün, Bülent FA04
Goh, Khim Yong FC11
Goic, Marcel SB06
Goins, Sheila FB04
Goldenberg, Jacob SA11, SB01
Golder, Peter SC03
Goldfarb, Avi FA01, FC03, FD14
Gomez, Miguel TA14
Gonzalez, Jorge FA06
Gopalakrishna, Srinath TB11
Gopal, Gurram TC09
Gordon, Brett TC01
Gorodesky, Iris TB04
Goto, Hisanori TC12
Govind, Rahul FC16, FD06
Grasas, Alex SB09
Greenacre, Luke SA03
Greenleaf, Eric A. TB03
Gremler, Dwayne FD16
Grewal, Rajdeep TA15, TC15, SB12
Grinstein, Amir FB15
Gruca, Thomas TD13, FB04, SA13, SC09
Guan, Chong TB08
Guerini, Carolina TB15
Guha, Abhijit FC03
Guo, Liang FB04
Guo, Xiaoning SA11
Gupta, Reetika TC08
Gupta, Sachin TB07, SA07
Gupta, Sudheer FA10

H

Haenlein, Michael FB04
Haeubl, Gerald FC11
Hamaoka, Yutaka TB05
Hamilton, Barton H. FC03
Hammond, Ross SC08
Ham, Sung TB11
Han, Jeanie TA06
Han, Jin K. SC04
Han, Sang-Pil TB09
Hansen, Ann-Kristin FC02
Hansen, Karsten FC06, FD11, SC10
Hanssen, Dominique M. TB02
Hao, Liaogang SB12
Hardie, Bruce FB09, FD10
Hardt, Nino TA09
Harel-Tal, Sagit TB01
Hariharan, Vijay Ganesh SB05
Harrison, Paul TA12
Hartley, Nicole TA12
Hartmann, Wesley TB01, FD04
Haruvy, Ernan TA01, TB03, FD04
Hasangholipoor, Tahmorth FB13
Häubl, Gerald TB08, FB08
Hauser, John R. TC07, FB01
Haws, Kelly FC08
Hayashi, Fumiko SA09
He, Chuan TC14
He, Hongwei FA13
Heiligenthal, Jeanette FD09
Heil, Oliver SC01
Heiman, Amir SB08
Henderson, Ty FA07
Henke, Jr., John SC12
Herbst, Uta FD07, SD07
Herter, Valerie SD11
Hess, James TA09, TB11
He, Yongfu TA01
Hibshoosh, Aharon TA15
Hildebrandt, Lutz TA13
Himme, Alexander FC15
Hinz, Oliver SC01
Hinz, Oliver FB11, SD08
Hitsch, Gunter TB01
Hodge, Cori SD10
Hodge, Sharon FD13
Hodis, Monica FC05, SA08
Hoekstra, Janny FC15
Hoffman, Donna SA05
Hoffmann, Arvid O. I. TC04
Ho, Jason Y. C. TB04, TB07
Horsky, Dan TC14, FD07
Horsky, Sharon TC14
Horvath, Csilla FC10, SA14
Hosanagar, Kartik FA01, FB11
Hsiao, Lu TC11
Hsueh, Pei-Jone S02
Huang, Bo SC13
Huang, Chun-Yao SD05
Huang, Dongling FA14
Huang, Jesheng FC11
Huang, Li SC14
Huang, Qingyi FC16
Huang, Zan SB01
Huber, Joel SB07
Huettel, Scott SC08
Hu, Jeffrey SB14
Hung, Kineta FB13
Hung, Yuchen FB08
Hunneman, Auke FB16
Hwang, Heungsun SD07
Hwang, Seong-seob FD09
Hyatt, Eva SA08

I

Ickler, Henrik TC09
Iglesias, Oriol FA03
Ihl, Christoph TB09, TB15, SD12
ilipinar, Gursel FA03
Ingene, Charles FC16, FD06, SD10
Inman, Jeffrey FC16, SD02
Islam, Towhidul TA05, FB02
Israel, Duraipandian FA04
Iyengar, Raghu FB04, SC01

J

Jager, Wander SD01
Jain, Sanjay TC06, TC11
Jain, Sanjay FD15
Jamal, Zainab FC09
James, Gareth TA02
Janakiraman, Ramkumar TA07
Jang, Sungha FB09
Jank, Wolfgang TB02
Janssen, Marco SD01
Jap, Sandy TB03
Jedidi, Kamel TB02
Jen, Lichung FA06, FC11, SB14
Jerath, Kinshuk FA10, FD02
Jham, Vimi SC12
Jia, Jian-min FA12
Jia, Jianmin SB12
Jiang, Bao-Jun FC05
Jindal, Rupinder FA15
Jing, Bing SB04
Jin, Ying SB12
Johnson, Joseph SA11
Johnston, Wesley J. FA03
Joseph, Joy FD12
Joseph, Kissan FC02
Joshi, Amit TC06
Joshi, Yogesh V. TA02, FD15
Jun, Duk Bin FB16
Jungbluth, Michael SC06
Just, David R. SB08

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K.B., Saji SB13
Kacker, Manish FA10
Kadiyali, Vrinda TB07, TC01
Kalogeras, Nikos FD08
Kalyanam, Kirthi FD11
Kamakura, Wagner SD11
Kanetkar, Vinay TA05, TC15
Kang, Moon Young TB06, TB07
Kang, Wooseong SD09
Kannan, P.K. SC05, SD06
Kappe, Eelco FC06
Karaca, Huseyin SC10
Karniouchina, Ekaterina FD03
Kashyap, Vishal SA10
Katok, Elena FD04
Kawakami, Tomoko FC04
Kaya, Maria SD05, TB05
Keller, Jens FD10
Kent, Robert FC14
Kerbache, Laoucine FB14
Kettle, Keri TB08
Khan, Kaleem Mohd. SC12
Khan, Romana TA10
Khong, Kok Wei TC09
Kim, Geonha FD10
Kim, Jaehwan FB07
Kim, Jaesoo TB10
Kim, Jung TB07
Kim, Jungki FB16
Kim, Ju-Young FB12
Kim, Moontae SA04
Kim, Sang Yong SD10
Kim, Tae-kyun FC07
Kim, Taesun FB05
Kim, Wonjoon TA07
Kim, Youngchan SD07
Kiygi Calli, Meltem SA14
Klapper, Daniel TB01, SB04
Knaf, Michael TA08, SA04
Knox, George SA09
Koehler, Clemens FA11
Koenigsberg, Oded SB01, SC05
Kohli, Rajeev SC05
Kollmann, Tobias FA13
Koll, Oliver TC16
Kolsarici, Ceren TB14
Koning, Alex J. SB07
Konus, Umut SB11
Kopalle, Praveen TA17, SA05
Kordupleski, Raymond FC03
Kornish, Laura FC13
Koschat, Martin SB10
Koshy, Abraham FA12
Koukova, Nevena TC08
Kourogiorgas, Georgios FC09
Kraeussl, Roman SC13
Krafft, Manfred FC02
Kratcholova, Maria TB05
Kreuzbauer, Robert FD13
Krider, Robert TB07
Krishnamoorthy, Anand TA16
Krishnamurthi, Lakshman FC06, SD10
Krishnamurthy, Sandeep TA14
Krishnamurthy, Srinivasan FC15
Krishnan, Harish FA10, SC09
Krishnan, Trichy FA09
Kristensen, Tore FA03

Kristine, Devalck SA11
Kuksov, Dmitri SB12
Kumar, Amresh FA16
Kumar, Nanda TA14
Kumar, Subodha SC07
Kunter, Marcus SA10
Kushwaha, Tarun SB11
Kwak, Kyuseop FA07
Kwon, Ohjin FC07
Kyriakopoulos, Kyriakos TB15

L

Labbi, Abdel FC09
Lafontaine, Francine TA11, SC13
Lajos, Joseph TC08
Lam, Kar Yin SB07
Lam, Shun Yin TC04
Lambrecht, Anja TA05
Landsberger, Michael TC14
Laroque, Denis SA03
Lee, Clarence FB01
Lee, Eunkyu FD02, SD10
Lee, Hyoung-joo FD09
Lee, Janghyuk FB14
Lee, Jonathan TA06
Lee, Jongkuk FB10
Lee, Michelle TA13
Lee, Wen TA05
Lee, Ya-Wen FB15
Lee, Yen-Chu TA15
Leeflang, Peter S.H. TB02, FB03
Leeflang, Peter FD04
Lehmann, Donald TA04, TB17, TC02
Lei, Jing FD07
Lei, Tang FA05
Lemieux, James FC12
Lemmens, Aurélie TA02, FD09
Lemon, Katherine N. TA03
Lemon, Katherine TB17, FA09
Lenk, Peter TC07
Lerouge, Davy FA08
Levav, Jonathan FB08
Lewis, Michael SA10
Liang, Jianping SD04
Liao, Chun-Hua TC16
Liaukonyte, Jura FC14
Libai, Barak TA02, TC05, FC04
Liberali, Guilherme (Gui) SC09
Liberali, Guilherme FB01
Liechty, John SB07
Liess, Frank FD07
Li, Jia SA10
Li, Shenyu SB01
Li, Shibo FB07, SC02
Li, Tieshan FB16
Lilly, Bryan SA08
Lim, Boon C. SB02
Lim, Jooseop FB06
Lim, Lewis TD10, FA15
Lim, Noah TA11
Lin, Chin-Shien FB15
Lin, Claire FB08
Lin, Ting-Ling TA15
Lin, Yuanfang TA14
Lin, Yu-Li SC04, SD07
Liu, Feng FA16
Liu, Hsiu-Wen SC04, SD07
Liu, Qing SB06
Liu, Wensui SB14
Liu, Xia TC06
Liu, Yan (Lucy) SA07
Liu, Yang FB15
Liu, Yong TB06, TC06
Liu, Yunchuan TA14, FB15, SB10, SC10
Liu, Yuping TA03
Li, Yan FA13
Li, Ye FB08
Li, Yiyan FB13
Lo, Desmond (Ho-Fu) TA11, SC11
LourenÁo, Carlos FC12
Louviere, Jordan FB02
Love, Edwin FA05
Lovett, Mitchell TC14
Lowengart, Oded FA12, SB01
Lu, Ji FC08
Lu, Qiang (Steven) SB08
Luchs, Ryan FC16
Lyons, Kelly SA01

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Ma, Junzhao FD11
Ma, Yu FD16
Machado, Fernando FD15
MacInnis, Deborah TB08
MacLachlan, Douglas FA05, FD09
Mai, Enping Shirley TB06
Main, Kelley J. TC08
Mair, Patrick SA06
Mak, Vincent SD01
Maki, Toshihiko SC06
Makler, Christopher FC03
Malkewitz, Keven FA03
Mallapragada, Girish TA15
Malshe, Ashwin FC15
Managuli, Subhas TC09
Manchanda, Puneet FA06, FB03, SC01
Mang, Stefan FB12
Mantin, Benny SC09
Mantrala, Murali K. TA10, FB03, FC02
Mao, Huifang TC06
Marine, Le Gall-Ely TB12
Marinova, Detelina SC04
Mark, Tanya FA09
Marr, Bernard TB10
Martinez, Josue TB12
Martìn-Herrán, Guiomar FD14
Mathur, Sameer SD02
Mayer, Dorith SD12
Mayzlin, Dina TC14
Mazumdar, Tridib TC06
Mazursky, David SD09
McAlister, Leigh FA11, TB09
McIntyre, Shelby FA09
McWIlliams, Bruce SB08, TA12
Medjedovic, Josip TC15
Mela, Carl FB01, FD14
Melnyk, Valentina TA03
Merdji, Mohamed SB08
Merino, Maria TA12
Mesak, Hani TC10
Messinger, Paul TA07, SA01, SA02, SD08
Meyer, Jeff FC05
Meza, Sergio SB04
Mireles, Carlos FA05
Mishra, Saurabh SA13
Misra, Sanjog TB01, TC01
Mitchell, Andrew TB08
Mitra, Debanjan SC03
Mizik, Natalie TC02
Mizuno, Makoto FC04
Moe, Wendy TB06
Moguel, Yoanna FC13
Moll, Isa FA03
Montaña, Jordi TB05, FA03
Montgomery, Alan FB01, SB04, SB06, SC02,
Montgomery, David B. TB10, TB15
Montoya, Mitzi SD09
Montoya, Ricardo TB02, SC05
Moore, Sarah TC04
Moore, William FD03
Moorthy, Sridhar FD14
Mora, Jose D. TB07
Morgan, Neil SA13
Morioka, Shinji TA04
Morrison, Pamela SB08, SC03
Mukherjee, Anirban TC01
Mukherjee, Avinandan FD06
Mukherji, Prokriti FB12, FC05
Mukhopadhyay, Anirban TC04
Mukhopadhyay, Tridas FC05
Muller, Eitan TA02, TC05
Murova, Olga TC10
Murray, Kyle TC08, FC08, FC12, SD04
Musalem, Andres FC07
Muthukrishnan, A.V. FA08

N

Naik, Prasad TA10, TB03
Nair, Harikesh TC01, FD04,
Naja, Maya SB03
Nanda, Aman FD12
Narasimhan, Chakravarthi TB16, TC12
Narasimhan, Om FC05, FD13
Narayanan, Sridhar TC01, TB01
Narayan, Vishal SB09
Nasser, Sherif FD15
Natter, Martin FA16, FB12, FD11
Nelson, Charlie SC03
Nelson, Paul TC13, FD07
Neslin, Scott TC11
Netessine, Serguei FA10
Netzer, Oded TB02, SA11
Neumann, Nico SB08
Newmeyer, Casey TC13
Nguyen, Dung SC03
Nicolas, Jean-Louis SB08
Niederauer, Christian SD04
Nies, Salome FA16
Nijs, Vincent FC16, SC09
Niraj, Rakesh TA07
Nishida, Satoshi TA04
Niu, Annie SA01
Noordhoff, Corine TB15
Novak, Tom SA05

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Oestreicher-Singer, Gal FA11
Ofek, Elie FB15
Olivares, Marcelo FC07
Okuse, Yoshiyuki FD12
Olinger, Kathryn FD13
Oliver, Jim FD01
Onishi, Hiroshi FA06
Oppenheim, Peter SC03
Oppewal, Harmen SA03, SD10
Orbach, Yair FB05
Ordabayeva, Nailya TC08
Orozco, David SA13
Osinga, Ernst C. TB02
Ozdemir, Zafer TC11

P

Paap, Richard FC12, SA14
Paas, Leo SB03
Pagani, Margherita FB05
Pai, Seema SB13, SC05
Palekar, Udatta SB10
Papatla, Purush FA16, FC04
Papies, Dominik TA12
Parameswaran, Ravi SC12, SD06
Pardasani, Manoj FD08
Park, C. Whan TA06
Park, Chang Hee SD08
Park, Joo Heon FA05
Park, Myoung Hwan FB16
Park, Sungho SA07
Park, Young-Hoon TB03
Park, Young-Hoon TA06, SD08
Parkman, Ian FA03
Patel, Chirag FD05
Pauwels, Koen TC03
Pauwels, Koen FC15, SC09
Pazgal, Amit FD12
Pearce, Guy TB16
Peers, Yuri TC05
Pelz, Joachim S07
Peng, Pao-Hung TA15
Pennings, Joost M.E. FA08, FD08
Perelgut, Stephen SA01
Petersen, Ann FC10
Peterson, Robert FC12
Petrova, Elina FD05, SB04
Pieters, Rik FA14
Piller, Frank TB09
Pingitore, Gina FA13
Pisharodi, R. Mohan SC12
Popkowski Leszczyc, Peter T. L. TA01, TC08, SB01
Post, David FB12
Poynor, Cait FC08
Prabhu, Jaideep FD05, FD13
Prins, Remco TC05
Prinzie, Anita FD07
Proppe, Dennis S05
Purohit, Debu FD02, SB14
Putler, Dan FB16
Qianyi, Tsai SB02

Q

Qiu, Chun (Martin) FD14, SD08
Qiu, Donglei TB03
Qualls, William FB10

R

Raghavarao, Damaraju SB07
Raghu, T.S. FD15
Rajiv, Surendra FC11
Raj, S. P. TC10
Raju, Jagmohan S. TA17
Ramaswami, Seshan TA13
Ramus, Cathie TB15
Rangaswamy, Arvind SA01, SB01, SB07, SD01
Rao, Vithala R. TA14, FD03
Ratchford, Brian TA07, TA09, TB07, FA14, FB09
Ratchford, Mark FC13
Rayej, Hamzeh FB13
Ray, Sourav SA02
Rego, Lopo TB13, FB13, SA13
Reibstein, David FD15
Reichwald, Ralf TB15
Reimer, Kerstin FB06
Reinartz, Werner SC11
Reinecke, Sven FD10
Rese, Mario FA04, SD11
Reutterer, Thomas TA16, FA09
Rhee, Byong-Duk TC10
Rhee, Subom FA09
Ringer, Allison SA03
Risselada, Hans TA09
Roberts, John SB08, SC03
Rogers, Greg SC06
Rohm, Andrew J. FB14
Romero, Jaime TB09, SA09
Rosenzweig, Stav SD09
Rossi, Federico TC10
Rossi, Peter TA17
Roth, Stefan SB08
Rubera, Gaia SB05
Ruiz Conde, Enar FB03
Rungie, Cam FB02
Rusetski, Alexander FA15
Russell, Gary FA07, FC10
Rust, Roland TA09, TB17, FA11
Rutz, Oliver J. FB06, FC01, FD01

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Sa Vinhas, Alberto SA10
Saar-Tsechansky, Maytal FA11
Sangwan, Sunanda TB08
Sarstedt, Marko SA06
Sarvary, Miklos TA16
Sattler, Henrik FC13
Savaskan, R. Canan FD02
Schlereth, Christian TB12, TC12
Schmidt, Simone FC02
Schmidt-Stoelting, Christina FB06, SC10
Schmitt, Julien FD16
Schweidel, David TB06, FC14
Scott Morton, Fiona FB12
Seetharaman, P.B. (Seethu) FA14, FC16
Seim, Katja TA05
Sen, Sankar SB13
Sen, Subrata K. TA07
Serota, Kim FB13
Sethuraman, Raj SA13
Shachar, Ron TC14, SC13
Shah, Rajesh FA16
Shaikh, Nazrul I. SA01
Shankar, Venkatesh TC06, FC05, SB11, SD04
Shao, Kung-Hsin FA06
Shapira, Daniel SB01
Shi, Hongyan SC10
Shi, Mengze S02
Shin, Hyun TB02
Shin, Hyunjung F09
Shin, Jiwoong TC14, SB14
Shin, Sangwoo FD07
Shin, Woochoel SB14
Shriver, Scott FD04
Shugan, Steven FA02
Shulman, Jeffrey D. FD02
Siddarth, S. FC07
Siddarth, Sivaramakrishna FC07, FC14, SB13
Siguaw, Judy TB08
Sigué, Simon P. FA02
Sigue, Simon FD12
Silberhorn, Nadja TA13
Silinskaia, Daria TC07
Silk, Tim SA04
Silva-Risso, Jorge FB12
Sinapuelas, Ian TA13
Singh, Jagdip SC04
Singh, Param SA05
Singh, Vishal TA10
Sinha, Atanu TA08
Sinha, Rajiv FD15
Sinha, Shameek TB09
Sinitsyn, Maxim SB09
Sismeiro, Catarina FC01
Sisodiya, Sanjay TA13
Skiera, Bernd TB12, TC12, FB11, FC01, FD04, FD09, SD08
Sloot, Laurens M. SD09
Sloot, Laurens FD16
Smarandescu, Laura SA04
Smirnov, Kristen SA01
Smith, Michael FA01
Smit, Willem SB10
Song, Reo TC06
Sonnier, Garrett FA07
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THURSDAY	10AM - 6:30PM	**REGISTRATION**															
	TA 1-2:30PM	Empirical Analysis of Online Auctions	Expanding Frontiers of Diffusion Research	Loyalty Programs	New Approach. Word-of-Mouth	Issues in New Product Adoption	Modeling Movie Box-Office	Brand Choice & Market Structure	Reference Points, Timing & Concession	Models of Customer Churn	Modeling Dynamic Market Competit.	Sales Management I	Price Eval., WTP & Pricing Options	Issues in Branding	Theoret. Models of Advertis. & Promo.	Internatio-nal Marketing Issues	Direct Marketing & Targeting
	2:30-3PM	**BREAK**															
	TB 3-4:30PM	Static & Dynamic Equilib-rium Models	Marketing & Financial Performance I	Bidding Behavior in B2B & B2C Online Auctions	Word-of-Mouth in Online Environ-ments	New Product Diffusion – Applica-tions	Entertain-ment Demand	Applied Choice Models	Self-Prediction, Control & Need Satisfaction	CRM-Customiza-tion & Customer Portfolio	Issues in Competi-tion Modeling	Sales Management II	Willingness to Pay Measure-ment	Brand Strategy	Issues in Advertis-ing	Best Practices Effective Global Marketing	Multi-Product Marketing
	TC 4:45-6:15PM	Dynamic Structural Models	Financial Market's Reaction to Marketing	Private Labels	Social Influence & Self-Construal in Consu-mption	New Product Diffusion - Cross Country Studies	Movie Marketing	Choice – Methods & Data	Mood, Brand Familiarity & Decision Frames	CRM-System Implemen-tation	Dynamic Aspects of Competi-tion	eComm – Multi-Channel	Bundling & Pricing	Branding	Advertis-ing Strategy	Marketing Strategy & Firm Performan.	Retail Manage-ment
	6:30-8PM	**WELCOME RECEPTION**															
FRIDAY	7AM-5PM	**REGISTRATION**															
	7:30-8:30AM	**BREAKFAST**															
	FA 8:30-10AM	Search Engines & Marketing I	Service Marketing	Marketing Meets Design	Influences on Purchase	Managing New Product Intro.	Word-of-Mouth in Movie Marketing	Choice – Statistical Methods	Consumer Decision Making	Dynamic Effects in Predictive Modeling	Channel Competi-tion	eComm – Recomm-endation Systems	Factors Influencing Price Perception	Branding Issues	Adverti-sing Issues	Org. Theory Issues in Marketing	Retail Category Manage-ment
	10-10:30AM	**BREAK**															
	FB 10:30-12PM	Online Customi-zation	Variance Components in Choice Experiments	Special Session on Marketing & Health	Network Effects & Social Influence	New Product Forecasting	DVD & Entertain-ment Media Marketing	Choice – Marketing Mix Response	Influences Consumer Choice Process	Customer Lifetime & Wallet-share	Strategic Alliances	eComm – The Long Tail Effect	Pricing	Factors Infl. Brand Equity & Image	New Media Adverti-sing	Market Orientation, Cus. Loyal. & Competit.	Location Issues in Retailing
	12-1:30PM	**LUNCH**															
	FC 1:30-3PM	Adverti-sing by "Words"	Sales Force Design & Compensa-tion Strategy	Managerial Decision Making	Social Networks & Market Efficiency	Emerging Issues in Software & Tech. Mkts	Pharmaceu-tical Marketing	Choice - Applications	Craving & Justification in Hedonic Consump.	Predictive Modeling – Applica-tions	Pricing Competi-tion	eComm – Online Info Search	Price Perception	Brand Measure. & Manage-ment	Adverti-sing & Sponsor-ship	Financial Markets & Marketing	Retail Store Choice & Competit.
	3-3:30PM	**BREAK**															
	FD 3:30-5PM	Search Engines & Marketing Science	Frontiers in Marketing Channels	Alternative Preference Measure-ments	Network Externali-ties & Self-Selection	Organiza-tional Dynamics & Innovation	Health Marketing	Multiattribute Models	Importance Culture & Ethnicity in Consumer Behavior	Predictive Modeling – Methods	Time Series Market Analysis	eComm – Consum-er Choice & Learning	Price Promos & Price Discrimina-tion	Brand Identity, Persona-lity & Extensions	Adverti-sing & Market Competi-tion	Strategy & Consumer Behavior	Retail Store Environ-ment
	6-7PM	**RECEPTION**															
	7-10PM	**GALA DINNER**															
SATURDAY	7AM-4PM	**REGISTRATION**															
	7:30-8:30AM	**BREAKFAST**															
	SA 8:30-10AM	Social Networks & Marketing I	Price Rigidity	Social & Cause Marketing	Consum-er Response to Promos.	New Product Design & the Design Process	Structural Equation Modeling	Structural Econometric Models of Consumer Choice	Consumer Perception: Packaging, Stimuli & Haptics	Customer Lifetime Value	Channel Manage-ment	Blog-Research	Understand-ing & Improving Customer Satisfaction	Brand Equity	Measuring Adverti-sing Effective-ness		
	10-10:30AM	**BREAK**															
	SB 10:30-12PM	Social Networks & Marketing II	Words Matter	Marketing & Public Policy: Public Interest	Models of Sales Promotion	Commer-cializing Innovations & Launch. New Prod.	Bayesian Method-ology	Conjoint Analysis Methods	Assessing Risk & Ambiguity Aversion	Product Manage-ment	Channels & Customer Choice	Customer Relation. in a Multi-channel Environ.	Issues in Customer Satisfaction Research	Brand Equity & Corporate Citizenship	Adverti-sing Pricing		
	12-1:30PM	**LUNCH**															
	SC 1:30-3PM	Social Networks & Marketing III	Marketing Engineering – Integrating Data Mining Tools	Marketing Science Beyond Business	Service Organiza-tion Manage-ment	New Product Develop. – Product Design	Statistical Method-ology	Market Segmenta-tion	Behavioral Choice Models	Product Line Manage-ment	Channel Structure	Issues in B2B Marketing	Customer & Employee Relation-ships in Services	Brand Manage-ment	Consumer Response to Adverti-sing Comm.		
	3-3:30PM	**BREAK**															
	SD 3:30-5PM	Social Networks & Marketing IV	Gift Giving & Fashion	No Session	Service Evalua-tion	The Role of Network Externali-ties in Diffusion	Methodol-ogy: Data Manage-ment & Collection	Segmenta-tion Research	Models of Consumer Learning	Factors Influencing Product Line Innovative	Altering Channel Relation-ships	Marketing Metrics	B2B Customer Relation-ships	**Meet the Editors:** Thursday, Pavilion D TA17– 1:00- 2:30PM TB17– 3:00- 4:30PM			