



UNIVERSITY OF AMSTERDAM
Amsterdam Business School

Customer Journeys In a Digital World

29-31 May 2023 | University of Amsterdam



Contents

Program Overview	3
Detailed Program	4
Keynote Speakers	7
Presenters	8
Conference co-Chairs	15
Summary List of Participants	16

Program Overview

Monday, 29 May 2023

16:30	Gathering point (Theatre Carre)
17:00-19:00	Social activity: Canal tour with drinks and snacks
19:00-	OPTIONAL: dinner

Tuesday, 30 May 2023

08:30-15:15	Conference (Day 1) (including lunch)
15:30-17:00	Social activity: Guided Museum Tour
17:00-19:00	Social event & drinks
19:00-	Conference Dinner

Wednesday, 31 May 2023

09:30-13:00	Conference (Day 2)
13:00-14:00	Light lunch (Dutch style)

For further information see: [Customer Journeys in a Digital World](#)

Detailed Program

Monday, 29 May: Welcome (Day 0)		Amsterdam (City Centre)
16:30	<u>MEETING POINT</u>	Amstel 115 /125, 1018 EM Amsterdam
	<u>PLEASE BE ON TIME AS BOAT LEAVES AT 17:00 SHARP</u>	Departure location: in front of Royal Theatre Carré
17:00 – 19:00	Canal Tour of Amsterdam Canals Snacks and drinks provided	Start: Theatre Carré, Amstel 115 Finish: Singel 359 (near 9 straatjes) -
Tuesday, 30 May: Conference (Day 1)		Amsterdam Business School, Plantage Muidersgracht 12 M-Building (ROOM: M1.02)
08:30 – 09:00	Registration & Coffee (M1.50)	
08:55 – 09:00	Welcome and Introduction	Introduction - Conference Co-Chairs
Papers Session 1		
09:00 - 09:30	The causal effect of recommender systems vs. best-seller lists: evidence from an A/B test	Shrabastee Banerjee, Tilburg University
09:30 - 10:00	Quality Competition in the Fast Food Chain Industry: Evidence from Online Reviews	Sungtak Hong, Bocconi
10:00 - 10:30	How do temporary VAT cut policies change retail prices?	Kathleen Kleeren, KU Leuven
10:30 – 11:00	Coffee Break (M1.50)	
11:00 – 11:30	Algorithmic Fairness and Service Failure: Why Firms Should Want Algorithmic Accountability	Peter Zubcsek, Tel Aviv University
11:30 – 12:00	The Dark Side of Bottle Deposits: How Marketing Conduct Exacerbates Sales Losses for Retailers	Kristopher Keller, UNC
12:00 – 12:45	Lunch (M1.50)	

Papers Session 2

12:45 – 13:30	Winning at the Marketing-Operations Interface in Omnichannel Retail	Robert Rooderkerk, RSM
13:30 – 14:00	Algorithm failures and consumers response: Evidence from Zillow	Davide Prosperio, USC
14:00 – 15:00	Empirical Generalizations on the Customer Journey: The Insights, Value and Limitations of Meta-Analyses	Tammo Bijmolt, Groningen
15:00 – 15:15	<u>Walk to Museum</u>	<i>Departing Location: Amsterdam School of Business</i>
15:15 – 17:00	Guided tour of The National Maritime Museum and VOC Ship for visit	<u>Kattenburgerplein 1, 1018 KK Amsterdam</u>
17:00 – 18:30	Drinks and Snacks at Hanneke's Boot	<u>Dijksgracht 4, 1019 BS Amsterdam</u>
18:30 – 22:00	Dinner (Hanneke's Boot)	<u>Dijksgracht 4, 1019 BS Amsterdam</u>

Wednesday, 31 May: Conference (Day 2)

Amsterdam Business School,
Plantage Muidergacht 12
M-Building (ROOM: M1.02)

Papers Session 3

09:00 – 09:30 **Small breakfast and coffee (M1.50)**

09:30 – 10:00	Review Updating: How Consumers Can Change Their Mind	Martina Pocchiari, NUS
10:00 – 10:30	Deciphering and influencing cross-buying journeys	Hans Risselada, Groningen
10:30 – 11:00	The Effectiveness of Mobile-Specific Content in Mobile In-App Video Advertising	Francesca Sotgiu, VU Amsterdam
11:00 – 11:30	Coffee Break (M1.50)	

Papers Session 4

11:30 – 12:30	Color analytics for data-driven brand management	Daria Dzyabura, NES
12:30 – 13:00	Closing Remarks	
13:00 – 14:00	Light lunch	

Format

- Each paper will have a slot of 30 minutes, including discussion.
- The program is dense. It is therefore important to start and finish on time.
- You can ask us to save your presentation on the computer before your presentation or you can bring your pen-drive or download the presentation and save it before your session. If you would like us to do so, please send the presentation by Friday 26th at 15:00 the latest if you are presentation on Tuesday. Presentation for Wednesday can be sent on Tuesday 30th at 15:00.

Keynote Speakers

DARIA DZYABURA, New Economic School, Russia.

Keynote Speech: Color analytics for data-driven brand management



Daria Dzyabura is Professor of Marketing at New Economic School in Moscow. Professor Dzyabura's research focuses on methods for analyzing complex decision-making rules and developing efficient forecasting methods for multi-faceted buying situations. She has published research on modeling and measuring automobile purchase decisions and identifying "must-have" product attributes. Her current research studies how consumer preferences evolve during the search process and the dynamics of consumer brand perceptions in response to negative brand events. Her current methodological focus is on applying natural language processing tools to unstructured (text) data.

Professor Dzyabura got her PhD in Management Science in 2012 at MIT and was an Assistant Professor at NYU before joining NES. Her research interests include machine learning, omnichannel retail, consumer preference modeling and elicitation, consumer search. Her articles are published in the leading marketing journals such as Marketing Science, Management Science and Journal of Marketing Research. In 2018 she received the MSI Young Scholars 2019 prize. The prize is awarded once in two years to marketing scholars who are believed to be the leaders of the next generation of marketing academics

Tammo Bijmolt, University of Groningen, the Netherlands.

Keynote Speech: Empirical Generalizations on the Customer Journey: The Insights, Value and Limitations of Meta-Analyses



Tammo H.A. Bijmolt is Professor of Marketing Research at the Department of Marketing, chairman of the department, and Director of the Groningen Digital Business Center. In the academic year 2016-2017 and 2020-2021, he is / has been (parttime) visiting professor at the University of Hamburg, Germany. From March 2009 till November 2015, he has been Director of the research institute SOM, Faculty of Economics and Business Administration, University of Groningen, The Netherlands. His research interests include conceptual and methodological topics such as consumer decision making, e-commerce, advertising, retailing, loyalty programs, and meta-analysis. His publications have appeared in international, prestigious journals, among others: Journal of Marketing Research, Journal of Marketing, Journal of Consumer Research, Marketing Science, International Journal of Research in Marketing, Psychometrika, and the Journal of the Royal Statistical Society (A). His articles have won best paper awards from International Journal of Research in Marketing (2007), Journal of Interactive Marketing (2011), and European Journal of Marketing (2015, 2017). He is associate editor of the International Journal of Research in Marketing and member of the editorial board of Journal of Marketing, Journal of Retailing, and International Journal of Electronic Commerce. Tammo Bijmolt is vice-president conferences and President-elect of EMAC and lectures in the EDEN programs of EIASM and the ProDok series of the VHB in Germany. He has lectured in a broad range of programs at the Bachelor, Master, Ph.D. and executive MBA level. He has been involved in several research-based consultancy projects for a variety of companies including DVJ Insights, MetrixLab, GfK, Wehkamp, and Unilever. Finally, he served as an expert in legal cases involving market research projects.

Presenters

SPEAKER	PRESENTATION TITLE AND ABSTRACT
Shrabastee Banerjee, Tilburg, Netherlands	<p>The causal effect of recommender systems vs. best-seller lists: evidence from an A/B test</p> <p>In a world of many alternatives, consumers turn to recommender systems to discover products that match well with their preferences and sellers devote substantial resources into developing them. Yet the causal effect of recommenders on demand and other outcomes of interest remains hard to study. One problem is that often it is unknown which products were actually recommended, and hence whether a specific purchase resulted from a recommendation. In this project, we have access to which specific products were viewed and clicked on as recommendations as well as which specific products were visited, put in the shopping basket and bought. We use data from an A/B test conducted by a large e-commerce firm in the Netherlands, which experimented with an item-to-item collaborative filtering (CF) recommender, relative to a control condition that used a bestseller list. We do not find a significant positive effect of the CF-based recommender on purchases and revenue -- in fact, we estimate a slight negative effect across most specifications. However, we find a significant substitution effect: the fraction of purchases that directly result from a recommender click or view is higher than that from a best-seller click or view. We also find that the recommender drives consumers to view more products within a given session, and also that more of these products are unique to them in comparison with the best-seller list. However, at the aggregate level, the CF condition leads to more concentration in clicks and views of the products recommended, compared to best-seller items recommended. Taken together, we contribute to the burgeoning recommender literature to highlight some of the competing forces that need to be taken into account when designing and deploying recommender systems - as we show, consumers may be better off since they find cheaper products more easily, and are nudged to explore a larger product space, but the recommender may still direct consumers to the same set of products, and thus may not be enough to help niche brands stand out at an aggregate level by both the retailer's power position and exchange relationship.</p>
Kathleen Cleeren KU Leuven, Belgium	<p>How do temporary VAT cut policies change retail prices?</p> <p>We investigate how retailers respond to temporary VAT cut policies introduced by governments, using a temporary VAT reduction implemented in Germany in 2020 to guard purchase power during the COVID-19 pandemic. We study how retail prices change in response to this tax reduction policy and how prices change after the policy was lifted. To estimate the pass-through effect, we use retail scanner data from Germany and employ a difference-in-differences approach. Observations from the Netherlands are used as a control group. The results reveal three findings. First, on average, retailers do not fully pass on the tax reduction to consumers. This indicates that the degree to which consumers benefit from the tax reduction depends on the specific products they purchase and the retailers from which they buy. Second, we find that, on average, retail prices respond asymmetrically to tax reduction and the lift of the tax reduction, which implies that the short-term policy may have long-term consequences. Finally, we observe substantial heterogeneity across retailers. Retailers pass on the tax reduction to varying extents, and some retailers take advantage of the temporary VAT cut to increase their margins by under-responding to tax reduction or over-responding to the lift of the VAT reduction.</p>

<p>Sungtak Hong Bocconi University, Italy</p>	<p>Quality Competition in the Fast Food Chain Industry: Evidence from Online Reviews</p> <p>This research uses online restaurant reviews to explore how restaurants compete in a domain of product and service quality. By focusing on the fast food restaurants, which offer a similar menu of products (e.g., hamburgers) with varying product quality, we document how the restaurants adjust their offerings in the presence of competitors with distinct perceived product quality in the local market. In particular, we document how three “hipster mega chains” (Five Guys, In-N-Out, and Shake Shack) influenced the quality competition among local fast-food restaurants. While the competing local restaurants may want to improve their food offerings, for store managers of a fast food chain, such an action of improvement is limited as their menu and the selection of food ingredients are largely determined and fixed at the chain level. In this context, we explore whether the local restaurants reacted to the hipster mega chains by enhancing quality factors that are under their direct control (i.e., service quality). For our empirical analysis, we use online consumer review data from Yelp. We first document that restaurants exhibit higher star-ratings in the presence of the hipster mega chains in their local markets, applying ATE estimation via predictions made by supervised machine learning algorithm. Further, we analyze review text data. Word embeddings and clustering words to groups of similar semantic meaning reveal some significant difference in review contents depending on the presence of high-quality competitors. For restaurants competing with hipster chain competitors, customers left more comments on positive service (e.g., ‘great customer service’ and ‘friendly staff’) and fewer comments on negative service (e.g., ‘rude’, ‘unprofessional’).</p>
<p>Kristopher Keller University of North Carolina, Chapel Hill. Kenan-Flagler, USA</p>	<p>The Dark Side of Bottle Deposits: How Marketing Conduct Exacerbates Sales Losses for Retailers</p> <p>This study examines the impact of bottle deposit bills on sales and product prices in the beverage industry. Bottle deposit laws require a refundable deposit on beverage containers to promote responsible consumption and production, and have been implemented worldwide. While their effect on recycling and waste reduction is well documented, the implications of such legislation on the sales and pricing of bottled drinks are still largely unknown. To address this research gap, we study the following three research questions: Do bottle bills change sales of bottled beverages and how does this vary across package sizes? Second, do prices change due to bottle bills and hence affect the observed sales change? Third, is the price change mitigating or increasing bottle bill's effect? The authors compile two years of weekly sales data (from one year before and one year after the bottle bill introduction) for more than 130 unique UPCs sold in the bottled water category. This studies uses more than 1,500 retail stores in New York, producing nearly 50,000 UPC-store pairs. The paper's identification strategy rests on a difference-in-differences (DID) framework comparing the sales before and after the implementation of the legislation change to a set of control markets featuring the same UPCs but did not experience the introduction of the bottle bill. The results indicate that retailers increase prices of package sizes covered by the bottle bill by almost 5% on average while they reduce prices of packages outside of the bottle bill's scope (≥ 128 fl. oz.) by close to 4%. At the same time, volume sales in the water category decrease. This reduction is driven by sales losses among the three smallest package sizes (8 fl. oz, 11 fl. oz., and 16.9 fl. oz.), while larger package sizes gain sales, particularly those not covered by the bottle bill. The authors disentangle the effect of price changes and the bottle bill introduction on sales in an integrated model and show that the bottle bill leads to higher sales for 7 out of 9 package sizes and does not lower sales for any package size. Put differently, any observed sales losses are entirely driven by price changes rather than the bottle bill itself.</p>

Martina Pocchiari NUS, Singapore	Review Updating: How Consumers Can Change Their Mind <p>In an environment in which most products have a vast majority of positive reviews, negative reviews can negatively affect consumers' attitudes, decisions, and average product ratings. Under the assumption that reviews cannot change, companies often mitigate the damage caused by negative reviews by soliciting additional positive reviews from consumers, acquaintances, or professional reviewers. However, such strategies can be very costly, time-consuming, and even not particularly efficient – for example, in case of a polarized rating distribution (e.g., the majority of products on Amazon) or for a newly-launched product. In this study, we investigate an alternative approach for online review platforms and companies to manage consumer opinions: allowing and soliciting consumers to update their existing reviews. In the context of a large online review platform and across hundreds of product categories, we combine machine learning, Bayesian models, and difference-in-difference methods to demonstrate that consumers engage in review updating, and respond to platform-wide, unincentivized solicitations to update. We also rely on past research on the drivers of online reviews, and investigate whether decisions to update are heterogeneous across review motives. More specifically, we investigate whether reviews originally expressing emotion-regulation motives – such as receiving an apology for a service failure – are differentially prone to updates, compared to reviews expressing utilitarian motives – such as solving a technical problem, or receiving a monetary or in-kind compensation. To date, this is the first study to demonstrate the non-static nature of online reviews as UGC, and to provide initial evidence of heterogeneity in these dynamics.</p>
Davide Proserpio Marshall Business School USC, USA	Algorithm failures and consumers response: Evidence from Zillow <p>In November 2021, Zillow announced the closure of its iBuyer business. Popular media largely attributed this to a failure of its proprietary forecasting algorithm. We study the effect of this algorithm failure news on a different Zillow algorithm called Zestimate, which estimates home values to aid home sellers when listing their homes for sale. We show that, after the iBuyer failure, sellers make pricing decisions that deviate more from Zestimate, suggesting that the algorithm failure negatively affected consumer trust in the Zestimate algorithm. Moreover, we find that sellers deviate more by increasing rather than decreasing their list price. We next look at the downstream consequences of this increased deviation on sales outcomes and find that deviating from the Zestimate by increasing list prices does not negatively affect home buyers.</p>
Hans Risselada University of Groningen, Netherlands	Deciphering and influencing cross-buying journeys <p>Understanding how existing customer relationships evolve is a key goal for marketing managers interested in learning how customers should be approached at any given time. However, prior work has mainly focused on evolution of customer purchase journeys, which end when customers become a customer. In this paper, the authors apply the customer journey lens to cross-buying behavior of existing customers and show the existence of cross-buying journeys. Using a state space model on a unique longitudinal dataset containing over three years of daily data on 14.993 customers in the insurance industry, the authors show that customer-initiated touchpoints can be used to predict a customer's future cross-buying trajectory. Using the aforementioned model and quasi-experimental methods, the authors subsequently show that the effect of firm-initiated marketing actions on cross-buying behavior is inherently journey-dependent. Results suggest that some actions have the potential to counteract negative journeys, but other actions can have the unintended consequence of reinforcing negative cross-buying journeys.</p>

<p>Robert Rooderkerk Rotterdam School of Management, Erasmus University, Netherlands</p>	<p>Winning at the Marketing-Operations Interface in Omnichannel Retail: Facilitating Profitable, Frictionless, and Sustainable Customer Journeys</p> <p>Omnichannel retail has witnessed enormous growth in recent years to nearly become the new normal for many consumer products. The usual tension between the market's desire to offer a seamless experience to the customer and the operation's desire to maximize efficiency is particularly pronounced in omnichannel retail. In addition, retailers are increasingly recognizing the need to prioritize sustainability alongside the ongoing challenge of balancing effectiveness and efficiency. In this talk I will present some key challenges that arise at the marketing-operations interface in omnichannel retail. Drawing from various sources such as popular media, interactions with global retailers and manufacturers, published research, and ongoing research collaborations, I will illustrate these challenges with real-world examples. My presentation will focus on the evolving role of physical stores in an omnichannel world, serving as the catalyst for profitable, frictionless, and sustainable customer journeys.</p>
<p>Francesca Sotgiu VU Amsterdam, Netherlands</p>	<p>The Effectiveness of Mobile-Specific Content in Mobile In-App Video Advertising</p> <p>If you have played a freemium game on your mobile phone or tablet, you've likely been exposed to in-app ads. You may have noticed that mobile in-app video advertising incorporates embodied locomotory features (such as tilt, tap, and shake) into their creatives to physically engage consumers with the advertisement, thereby enhancing their experience. In this paper we focus on the impact of these embodiment features on consumer brand choice by conducting 252 field experiments for a total of 186 brands across 10 product categories and more than 30 countries across the world. We identify which objective and embodiment feature brands should focus on to increase brand choice and what to avoid. The study also highlights the role of important contextual moderators at play, such as country and brand characteristics, that render certain features less effective for global roll-outs.</p>
<p>Peter Zubcsek Tel Aviv University, Israel</p>	<p>Algorithmic Fairness and Service Failure: Why Firms Should Want Algorithmic Accountability</p> <p>The past years have witnessed growing consumer concern about the fairness implications of the widespread adoption of AI in customer relationship management (CRM). To protect consumers against bias from algorithmic service decisions, regulators have introduced legislation holding firms accountable for the fairness of their algorithmic decisions. However, regulators have yet to invest in the systematic monitoring of algorithmic fairness, with the laws typically tasking firms with the detection and elimination of algorithmic bias. The resulting lack of transparency reduces firms' ability to manage consumer expectations, leaving it to consumers to assess the – perceived – fairness of CRM outcomes. We posit that, to this end, consumers gather information about firm actions from their immediate social network, and we build a mathematical model to characterize how beliefs of bias may propagate within the market – even if the firm is using a fair algorithm. We show that, paradoxically, the lack of algorithmic transparency may lead to a divergence between consumer perceptions and the judicial view regarding the fairness of firm actions – under certain conditions, a firm with a fair algorithm can be perceived by the population as less fair than a firm with a biased algorithm. Using agent-based modeling, we also demonstrate how a watchdog institution may help in correcting such misperceptions.</p>

Conference co-Chairs

SARA VALENTINI Bocconi University



Sara Valentini is an Associate Professor of Marketing at the Bocconi University.

She earned a Ph.D. in Marketing and a B.S. in Statistics, cum laude, from the University of Bologna (Italy). She was visiting scholar at the Tuck School of Business, Dartmouth College (USA). Sara's area of expertise is in the modeling of customer behavior, measurement, and analysis of marketing effectiveness and customer profitability, especially in the fields of omnichannel marketing and customer relationship management. Sara's research has appeared in journals including Journal of Marketing, Marketing Science, Journal of Retailing, Journal of the Academy of Marketing Science, and Marketing Letters.

JONNE GUYT, Amsterdam Business School



Jonne Guyt is an Associate Professor at Amsterdam Business School.

Jonne earned his Ph.D. in Marketing at the University of Tilburg. His area of expertise is in Retailing, Promotions and Customer Choice Models. His research has been published in journals including Journal of Marketing Research, Journal of Marketing and International Journal of Research in Marketing.

UMUT KONUS, Amsterdam Business School



Umut Konus is an Associate Professor of Marketing at Amsterdam Business School.

Umut has a Ph.D. in Marketing at the University of Groningen. His area of expertise is in the following domains: Marketing Analytics, Modeling, Multichannel Management, Attribution, Path-to-Purchase, Customer Journeys, Customer Experience, E-Marketing, Mobile Marketing, Social Media Marketing, Customer Relationship Management. His research has been published in journals including Harvard Business Review, Journal of Retailing, Journal of Interactive Marketing, International Journal of Research in Marketing and International Journal of Electronic Commerce.

Summary List of Participants

Name	University	Country
Shrabastee Banerjee	Tilburg University	Netherlands
Tammo Bijmolt	Groningen University	Netherlands
Francesco Bologni	Bocconi University	Italy
Nick Bombaïj	University of Amsterdam	Netherlands
Els Breugelmans	KU Leuven	Belgium
Margherita Caprara	Bocconi University	Italy
Kathleen Cleeren	KU Leuven	Belgium
Michiel van Crombrugge	Erasmus University Rotterdam	Netherlands
Lachlan Deer	Tilburg University	Netherlands
Anastasia Dikareva	University of Amsterdam	Netherlands
Daria Dzyabura	New Economic School	Russia
Bernadette van Ewijk	University of Amsterdam	Netherlands
Katrijn Gielens	University of North Carolina	USA
Rhea Goh	University of Amsterdam	Netherlands
Kedma Hamelberg	University of Amsterdam	Netherlands
Finn Höner	Business Data Science (RSM, UvA, VU)	Netherlands
Sungtak Hong	Bocconi University	Italy
Kristopher Keller	University of North Carolina	USA
Jessica Kim	Bocconi University	Italy
Raoul Kubler	ESSEC	France
Christina Kühnl	University of Stuttgart	Austria
Myrthe Kuipers	University of Amsterdam	Netherlands
Agata Leszkiewicz	University of Twente	Netherlands
Xingyi Li	University College London	United Kingdom
Arjen van Lin	Tilburg University	Netherlands
Elisa Montaguti	Bologna University	Italy
Sayyahi Mostafa	Bocconi University	Italy
Carla Freitas Silveira Netto	Bologna University	Italy
Martina Pocchiari	NUS	Singapore
Iguacel Melero Polo	Universidad de Zaragoza	Spain
Davide Proserpio	Marshall Business School USC	USA
Serena Pugliese	Leeds	United Kingdom
Hans Risselada	Groningen University	Netherlands
Robert Rooderkerk	Rotterdam School of Management	Netherlands
Edlira Shehu	Groningen University	Denmark
Qiaoni Shi	Bocconi University	Italy
Ramon Snellen	Business Data Science (RSM, UvA, VU)	Netherlands
Francesca Sotgiu	VU Amsterdam	Netherlands
Iris Steenkamp	Bocconi University	Italy
Olga Ungureanu	VU Amsterdam	Netherlands
Caio Vieira	Business Data Science (RSM, UvA, VU)	Netherlands
Fengtao Wan	Business Data Science (RSM, UvA, VU)	Netherlands
Ciel Yu	Business Data Science (RSM, UvA, VU)	Netherlands
Kai Zhu	Bocconi University	Italy
Peter Zubcsek	Tel Aviv University	Israel