

Aurélie LEMMENS

Associate Professor

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COORDINATES

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ACADEMIC POSITIONS

- 2011 – Present:** **ASSOCIATE PROFESSOR – Tilburg School of Economics and Management**
Tilburg University, Department of Marketing
- 2008 – 2011:** **ASSOCIATE PROFESSOR – Erasmus School of Economics**
Erasmus University, Department of Business Economics, Marketing Section
- 2006 – 2008:** **ASSISTANT PROFESSOR – Erasmus School of Economics**
Erasmus University, Department of Business Economics, Marketing Section

VISITING POSITION

- Spring-Fall 2012:** **VISITING SCHOLAR – Harvard Business School**
Harvard University, Department of Marketing

EDUCATION

- 2002 - 2006:** **PhD. in Business Statistics – Catholic University Leuven**
Dissertation: “*Advanced Classification and Time-Series Methods in Marketing*”
Advisor: Prof. Dr. C. Croux; Co-Advisor: Prof. Dr. M.G. Dekimpe
- 1997 - 2002:** **MSc. in Business Engineering – Solvay Business School**

RESEARCH INTERESTS

SUBSTANTIVE INTERESTS

- (I) Customer-centric strategies using data science (customer analytics), including customer acquisition and retention models, customer profitability analysis, CLV analysis, and information cascades and word of mouth;
- (II) (International) new product strategies, including new product launch & diffusion patterns, international pricing and international segmentation.

METHODOLOGICAL INTERESTS

- (I) Machine learning, including ensemble methods (bagging stochastic gradient boosting and method combination optimization), parametric & nonparametric binary choice models, and optimization techniques (gradient descent);
- (II) Time series & spectral analysis, including time-varying coefficient models, panel error-correction models, semiparametric modeling, Granger causality, forecasting.

HONORS, AWARDS AND GRANTS

Data Science PhD grant 2017 (financing for a four-year PhD position), awarded by the Data Science Center at Tilburg University for the project: “*The act-react problem: A sequential learning approach to optimize intervention timing and intervention outcome,*” co-authored with Maurits Kaptein.

Excellent Teacher Award 2017, awarded by Tilburg School of Economics and Management for the course *Conjoint Analysis*.

Aspasia/TiSEM contribution 2016 (10,000 EUR), incentive prize awarded by the Tilburg School of Economics and Management.

Vidi grant (November 2013 – July 2019, 5 year salary grant – **800,000 EUR**), awarded by the Dutch scientific foundation NWO for the project: “*Seeding Strategies to Foster Innovation Adoption: an Incentivizing Approach.*”

IJRM Best Paper Award 2012 for “Dynamics in the international market segmentation of new product growth” co-authored with C. Croux and S. Stremersch.

Veni grant (June 2010 – June 2013, 3 year salary grant – **250,000 EUR**), awarded by the Dutch scientific foundation NWO for the project: “*International Ties in Launch and Adoption Patterns of New Products: The Role of Cross-Country Spillover Effects.*”

Top Talent Researcher Awards 2008 & 2009 (20,000 EUR), incentive prize awarded by the Erasmus School of Economics to reward new talents.

Marie Curie Individual Fellowship (October 2006 – October 2008, 2 years salary grant – **135,000 EUR**), awarded by the European Commission, DG Research for the project: “*Diffusion of New Pharmaceutical Drugs in a Global Environment.*”

GOVERNANCE AND SERVICE

Tilburg University

Data Science Task Force MSc. Business Analytics, TiSEM, 2017-present
Data Science Committee, Bachelor & Master, TiSEM, 2014-2016
Education Committee for the MSc. Marketing Analytics, 2017-present
Jheronimus Academy of Data Science, Outreach to Companies, 2016-2017
Recruiting Committee, Data Science Chair sponsored by CZ, 2017
Seminar Organization, Marketing Department, 2011-2015, 2017-present
Zwaartekracht Committee on Responsible Data Science, 2016

Erasmus School of Economics

Academic Director MSc. Marketing, 2008-2011
Coordinator MSc. theses Marketing, 2008-2011
ERIM Fellow, 2006-2011
Tinbergen Institute Fellow, 2006-2011

Other Institutions

Assessment Committee, NWO Research Talent, 2017-2018
Faculty Member, EMAC Doctoral Colloquium, 2011 & 2017
Hiring Committee, Chair in Marketing Analytics, Solvay Business School, 2016-2018
Inaugural Team Leader, EMAC SIG Modeling/Quantitative Marketing/Marketing Analytics/Marketing Research, 2017-present

Editorial Board

International Journal of Research in Marketing

Ad-hoc Reviewer

Journal of Marketing Research, Marketing Science, Journal of Marketing, Journal of the Academy of Marketing Science, Quantitative Marketing and Economics, Journal of Interactive Marketing, European Journal of Operation Research, European Marketing Academy Conference, Oxford Bulletin of Economics and Statistics, Journal of Economic Dynamics and Control.

PUBLICATIONS

Number of citations: 1174; *h-index:* 12; *i10-index:* 12

Ascarza, E., Neslin, S., Netzer, O., Anderson, Z., Fader, P., Gupta, S., Hardie, B., Lemmens, A., Libai, B., Neal, D., Provost, F., and Schrift, R. (2018), "In Pursuit of Enhanced Customer Retention Management: Review, Key Issues, and Future Directions," *Customer Needs and Solutions*, 5(1-2), 65-81.

❖ *Resulting in MSI workshop on Integrated Customer Retention Management, New York, October 2017*

*Glady, N., Lemmens, A., and Croux, C. (2015), "Unveiling the Relationship between the Transaction Timing, Spending and Dropout Behavior of Customers," *International Journal of Research in Marketing*, 32, 78–93. [*Equal contribution]

Verbeke, W.J.M.I., Bagozzi R.P., van den Berg W., and Lemmens, A. (2013), "Polymorphisms of the OXTR Gene to Explain Why Sales Professionals Love to Help Customers," *Frontiers in Behavioral Neuroscience*, 7(171), 1-13.

Lemmens, A., Croux, C. and Stremersch, C. (2012), "Dynamics in International Market Segmentation of New Product Growth," *International Journal of Research in Marketing*, 29(1), 81-92.

❖ *Winner of the 2012 IJRM best paper award.*

Bijmolt, T.H.A., Leeflang, P.S.H, Block, F., Eisenbeiss, M., Hardie, B.G.S., Lemmens, A. and Saffert, P. (2010), "Analytics for Customer Engagement," *Journal of Service Research*, 13(3), 341-356.

*Stremersch, S. and Lemmens, A. (2009), "Sales Growth of New Pharmaceuticals across the Globe: the Role of Regulatory Regimes," *Marketing Science*, 28(4), 690-708. [*Equal contribution]

Lemmens, A., Croux, C. and Dekimpe, M.G. (2008), "Measuring and Testing Granger Causality over the Spectrum: An Application to European Production Expectation Surveys," *International Journal of Forecasting*, 24(3), 414-431.

Lemmens, A., Croux, C. and Dekimpe, M.G. (2007), "Consumer Confidence in Europe: United in Diversity?" *International Journal of Research in Marketing*, 24 (2), 113-127.

Gelper S., Lemmens A. and Croux C. (2007), "Consumer Sentiment and Consumer Spending: Decomposing the Granger Causal Relationship in the Time Domain," *Applied Economics*, 39, 1-11.

Croux, C., Joossens, K. and Lemmens, A. (2007), “Trimmed Bagging,” *Computational Statistics and Data Analysis*, 52 (1), 362-368.

Lemmens, A. and Croux, C. (2006), “Bagging and Boosting Classification Trees to Predict Churn,” *Journal of Marketing Research*, 43(2), 276-286.

Lemmens, A., Croux, C. and Dekimpe, M.G. (2005), “On the Predictive Content of Production Surveys: a Pan-European Study,” *International Journal of Forecasting*, 21(2), 363-375.

WORKING PAPERS AND REPORTS

Pieters, C. and Lemmens, A. (2015), “Acquiring Customers via Word-of-Mouth Referrals: A Virtuous Strategy?” *MSI Working Paper Series*, No. 15-123.

Lemmens, A., and Gupta, S. (2013), “Managing Churn to Maximize Profits,” *Harvard Business School Working Paper*, No. 14-020.

Croux, C., Joossens, K. and Lemmens, A. (2004), “Bagging a Stacked Classifier,” *Proceedings in Computational Statistics*, edited by Jaromir Antoch, 839-846.

RESEARCH IN PROGRESS (SELECTED SET)

Lemmens, A. and Gupta, S., **Managing Churn to Maximize Profits**, invited for 3rd round resubmission at *Marketing Science*.

Lemmens, A., Donkers, B. and Verhoef, P.C., **Whom to Target: Managing Risk when Predicting Retention**, invited for 2nd resubmission at *Marketing Science*.

Pieters, C., Lemmens, A. and Pieters, F.G.M., **Pass it Forward: Being Referred Increases Customers’ Tendency to Refer Independently of Satisfaction**, invited for 2n round resubmission at the *Journal of Marketing*.

Pieters, C., Pieters, F.G.M. and Lemmens, A., **Moderation Analysis with Measurement Error in Marketing: the Do’s and Don’ts**. Working paper (Target journal: *Journal of Marketing Research*).

Estrezon, E., Lemmens, A. and Van den Bergh, B., **Targeting Donors: How to Increase Fundraising Effectiveness by Providing the Possibility to Target a Charitable Gift**. Working paper (Target journal: *Journal of Marketing*).

Puha, Z., Lemmens, A. and Kaptein, M., **Proactive vs. Reactive Retention Strategies**. Work in progress.

CONFERENCE PRESENTATIONS

“Whom to Target: Managing Risk when Predicting Churn,”

❖ *Marketing Science Conference, Los Angeles, June 2017.*

“Reactive versus Proactive Retention,”

❖ *Triennial Invitational Choice Symposium, Lake Louise, May 2016.*

“Managing Churn to Maximize Profits,”

- ❖ *Marketing Science Conference, Istanbul, July 2013.*
- ❖ *Theory and Practice in Marketing, London, May 2013.*
- ❖ *Marketing Science Conference, Stephen Ross School of Business, Ann Arbor, June 2009.*

“Cross-National Differences in the Diffusion Patterns of New Products: A Semiparametric Approach”

- ❖ *Marketing Science Conference, Sauder School of Business, Vancouver, June 2008.*
- ❖ *EMAC Conference, Reykjavik University, May 2007.*
- ❖ *Marketing Science Conference, Katz Graduate School of Business, Pittsburgh, June 2006.*

“Sales Growth of New Pharmaceuticals across the Globe: The Role of Regulatory Regimes”

- ❖ *Marketing Dynamics Conference, Groningen University, August 2007.*
- ❖ *Marketing Science Conference, Special Session Marketing/Health, Singapore, June 2007.*

“Measuring and Testing for Granger Causality over the Spectrum”

- ❖ *Marketing Science Conference, Singapore Management University, June 2007.*

“Bagging and Boosting Classification Trees to Predict Churn. Insights from the US Telecom Industry”

- ❖ *Marketing Science Conference, Goizueta Business School, Atlanta, June 2005.*
- ❖ *11th Annual Meeting of Belgian Statistical Society, La Roche, October 2003.*

“Do Distances Still Matter in a Unified Europe?”

- ❖ *EMAC Conference, Bocconi University, Milan, May 2005.*

“Bagging a Stacked Classifier”

- ❖ *COMPSTAT 2004, 16th Symposium of IASC, Prague, August 2004.*

“On the Predictive Content of Production Surveys: a Pan-European Study”

- ❖ *Marketing Science Conference, Rotterdam, June 2004.*

INVITED PRESENTATIONS AND PHD TUTORIALS

Invited Presentations

“Managing Churn to Maximize Profits”

- ❖ *Erasmus School of Economics during the 'Advances in quantitative marketing' workshop organized for the 103rd Dies Natalis of Erasmus University, November 2016.*
- ❖ *Wageningen University, March 2015.*
- ❖ *Goethe University, Frankfurt, January 2014.*
- ❖ *Tuck School of Business, Dartmouth College, May 2013.*
- ❖ *INSEAD, Fontainebleau, February 2013.*

“Sales Growth of New Pharmaceuticals across the Globe: the Role of Regulatory Regimes”

- ❖ *Health Economics Seminar, Erasmus University Rotterdam, November 2008.*

“Characterizing International Diffusion Patterns”

- ❖ *University of Groningen, November 2006.*

“Bagging and Boosting Classification Trees to Predict Churn”

- ❖ *Marketing Winter Camp, K.U. Leuven, December 2005.*
- ❖ *ULg (University of Liège), April 2006.*

“Do Distances Still Matter in a Unified Europe?”

- ❖ *Warwick Business School, August 2005.*
- ❖ *Erasmus University Rotterdam, October 2005.*
- ❖ *Tilburg University, October 2005.*

PhD Tutorials

“Model Validation Techniques”

- ❖ *Rotterdam School of Management, March 2017.*
- ❖ *Tilburg University, 2016 & 2017.*

“Machine Learning Algorithms for Marketing”

- ❖ *Harvard Business School, April 2012.*

COMPANY COLLABORATIONS

I am collaborating with national and international companies in the area of telecommunications (KPN, DirecTV), online learning (Udemy), e-commerce (CrossEngage), banking/insurance (ING, Delta Lloyd), and charitable giving, among others, in order to design new customer analytics tools (mostly in the domain of customer retention and referral programs), and define interesting research challenges.

TEACHING ACTIVITIES

	<u>Average Teaching Evaluation</u>
<i>Conjoint Analysis 2016-present (Master in Marketing)</i>	4.5 / 5
<i>CentER Honors Program 2014-present (Bachelor & Master)</i>	4.5 / 5
<i>Advanced Marketing Research 2011-2015 (Master in Marketing)</i>	4.3 / 5
<i>International Marketing Research 2006-2010 (Master in Marketing)</i>	4.2 / 5
<i>Advanced Research Techniques 2016-present (PhD program)</i>	-
<i>Business Research 2016-present (Bachelor - guest lectures)</i>	-
<i>Master's Thesis Marketing 2006-present</i>	-
<i>Bachelor's Thesis Marketing 2011-2014</i>	-

PHD SUPERVISION

Constant Pieters (2014-present), financed by a NWO Vidi grant.

Zoltan Puha (2018-present), financed by a Tilburg Data Science Center grant.

MEMBER OF DOCTORAL COMMITTEES

Håvard Huse (Norwegian School of Economics), 2016

Jeroen L.G. Binken (Erasmus University Rotterdam), 2010

Carlos Hernandez Mireles (Erasmus University Rotterdam), 2010

Isabel Verniers (University of Ghent), 2009

Nicolas Glady (K.U. Leuven), 2008.

PERSONALIA

Married, mother of two children (2015, 2017).

Last updated, January 2019