Aurélie LEMMENS

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COORDINATES

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ACADEMIC POSITIONS

2023 – now: **FULL PROFESSOR OF CUSTOMER ANALYTICS – Rotterdam School of Management**
Erasmus University, Department of Marketing Management

2019 – 2023: **ASSOCIATE PROFESSOR – Rotterdam School of Management**
Erasmus University, Department of Marketing Management

2011 – 2019: **ASSOCIATE PROFESSOR – TISEM**
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

Fall 2023: **VISITING SCHOLAR – HEC Paris**
Department of Marketing

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: Customer-centric strategies using analytics, including customer acquisition & retention, customer profitability, CLV, and word of mouth; Algorithmic fairness and mitigating biases when using AI; Policy design and (off-)policy evaluation; Charitable giving.

METHODOLOGICAL INTERESTS: Machine learning, including active learning, causal machine learning, ensemble learning, and meta-learning; Policy evaluation; Parametric & nonparametric binary choice models; Optimization techniques (gradient descent); Time series & spectral analysis, including time-varying coefficient models, panel error-correction models, semiparametric modeling, Granger causality, and forecasting.

HONORS, AWARDS, AND GRANTS

Finalist, ERC consolidator grant 2022 for a research program on debiasing algorithms.

Open Science Award ERIM 2021 for best practice in Open Science at Erasmus University.

Finalist, 2019 MSI Robert D. Buzzell Best Paper Award for "In Pursuit of Enhanced Customer Retention Management: Review, Key Issues, and Future Directions."

ERIM Fellow 2019-Present

Excellent Teacher Award 2017 & 2019, awarded by Tilburg School of Economics and Management for the course *Conjoint Analysis*.

Data Science Ph.D. grant 2017 (financing for a four-year Ph.D. 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.

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.

IJRM Best Paper Award 2012 for "Dynamics in the international market segmentation of new product growth."

Veni grant (June 2010 – June 2013, 3-year salary grant – **250,000 EUR**), awarded by the Dutch scientific foundation NWO.

Top Talent Researcher Awards 2008 & 2009 (**20,000 EUR**), an 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.

GOVERNANCE AND SERVICE

Rotterdam School of Management

Open & Responsible Science Ambassador EUR, 2021-Present
ERIM Membership Charter Sounding Board Member on Open Science, 2021-Present
Recruitment lead for the Department of Marketing Management at RSM, 2019-2021
Academic Director, Customer Analytics Expert Practice at the Erasmus Centre for Data Analytics, 2020-Present

Tilburg University

Data Science Task Force MSc. Business Analytics, TiSEM, 2017-2019
Data Science Committee, Bachelor & Master, TiSEM, 2014-2016
Education Committee for the MSc. Marketing Analytics, 2017-2019
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, 2017-2019
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

> Veni Committee, Talent Program *Economics & Management*, 2022-2023
> Hiring Committee, Professor in Marketing, *Basel University*, 2022
> Hiring Committee, Associate Professor in Marketing, *BI Norwegian Business School*, 2019-2020
> Hiring Committee, Associate Professor in Marketing, *BI Norwegian Business School*, 2019-2020
> Assessment Committee, *NWO Research Talent*, 2017-2018
> Faculty Member, *EMAC Doctoral Colloquium*, 2011, 2017, 2021
> 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 RESPONSIBILITIES

Editorial Board

> International Journal of Research in Marketing, Journal of Marketing Research

Ad-hoc Reviewer

> *Marketing journals*: Journal of the Academy of Marketing Science, Journal of Interactive Marketing, Journal of Marketing, Management Science, Quantitative Marketing and Economics, Marketing Science Institute, European Marketing Academy Conference.

> *Other fields*: Business and Information Systems Engineering, Empirical Economics, European Journal of Operation Research, Information Systems Research, International Journal of Forecasting, Journal of Economic Dynamics and Control, Oxford Bulletin of Economics and Statistics.

PUBLICATIONS

Number of citations: 2,422; *h-index*: 14; *i10-index*: 15

*Esterzon, E., Lemmens, A., Van den Bergh, B. (2023), "Enhancing Donor Agency to Improve Charitable Giving: Strategies and Heterogeneity," *Journal of Marketing*, 87(4), 636-655. [*Equal contribution]

Pieters, C., Pieters, F.G.M., Lemmens, A. (2022), "Six Methods for Latent Moderation Analysis in Marketing Research: A Comparison and Guidelines," *Journal of Marketing Research*, 59(56), 941-962.

Lemmens, A. and Gupta, S. (2020), "Managing Churn to Maximize Profits," *Marketing Science*, 39(5), 956-973.

Puha, Z., Kaptein, M., Lemmens, A. (2020), "Batch Mode Active Learning for Individual Treatment Effect Estimation," *2020 IEEE International Conference on Data Mining Workshop Proceedings,* Sorrento, Italy, 2020, pp. 859-866.

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.

❖ *Finalist, 2019 MSI Robert D. Buzzell Best Paper Award*

*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

Lemmens, A., and Gupta, S. (2020), "Managing Churn to Maximize Profits," *Harvard Business School Working Paper*, No. 14-020.

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," *MSI Working Paper Series*, No. 17-118.

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

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., Donkers, B. and Verhoef, P.C., **No Free Lunch for Machine Learning**. Revise and Resubmit to the *Journal of Interactive Marketing*.

Puha, Z., Lemmens, A. and Kaptein, M., **Smart Experimentation**. *Work in progress*.

Puha, Z., Lemmens, A. and Kaptein, M., **Double Domain Adaptation for the Estimation of Conditional Average Treatment Effects**. *Work in progress*.

Ellsaesser, F., Kosyakova, T., Lemmens, A. and Gabel, S., **Customer Targeting in a Cookiefree World**. *Work in progress*.

Lemmens A., and Shi, Z. (2023), **Fair Active Learning for Optimal Personalized Policies**. *Work in progress*.

R PACKAGES & OSF REPOSITORIES

EnhancingDonorAgency, created in 2022, accessible via:

https://osf.io/4nzsw/?view_only=d6fe47c83bd6493c8039b76bb1aa9ad0

SixLatentModerationMethods, created in 2021, DOI: 10.17605/OSF.IO/PY7JX, accessible via:

https://osf.io/py7jx/?view_only=5d921a6658cf402a80bd1d4996665331

ProfitBoost, created in 2020, accessible via:

https://github.com/ProfitBoost-Lab/ProfitBoost

CONFERENCE PRESENTATIONS

"Fair Active Learning for Personalized Policy Design,"

- ❖ *HEC Paris, December 2023*.
- ❖ *Triennial Invitational Choice Symposium, INSEAD, August 2023*.

"Causal Machine Learning in Consumer Research,"

- ❖ *Special Session, together with Dr. Johannes Boegershausen, European ACR, June 2023*.

"Smart Experimentation for Customer Proactive Retention Management,"

- ❖ *Triennial Invitational Choice Symposium, Chesapeake Bay, May 2019*.

"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, Goïzueta 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 PH.D. TUTORIALS

Invited Presentations

"Creating Customer Value: Designing Marketing Campaigns with a True Impact."

> ❖ *Data Analytics Congress, November '22*
> ❖ *Nationale Nederlander, in-house company training on customer analytics, December '22*
> ❖ *Green Choice Inc., in-house company training on customer analytics, May-June '23*

"Enhancing Donor Agency to Improve Charitable Giving: Strategies and Heterogeneity"

> ❖ *University of Cologn, January 2023*
> ❖ *IESEG Paris Research Camp, December 2021*
> ❖ *Bocconi, December 2021.*

"Meta Ensemble Learning to Minimize Prediction Regret"

❖ *eQMS EMAC, December 2020*
❖ *Marketing in Israel, February 2021.*

"Managing Churn to Maximize Profits"

❖ *Agilytic Webinar, November 2020*
❖ *WU Vienna, December 2019.*
❖ *30th Anniversary of the Dutch and Flemish Classification Society, Jubilee Meeting, November 2019.*
❖ *Frankfurt School of Finance, October 2019.*
❖ *Rotterdam School of Management, February 2019.*
❖ *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.*

Ph.D. Tutorials

"Causal Machine Learning in Marketing Research"

❖ *Rotterdam School of Management, December 2023*
❖ *HEC Paris, December 2023*

"Model Validation Techniques"

❖ *Rotterdam School of Management, 2017 & 2019*
❖ *Tilburg University, 2016 & 2017.*

"Machine Learning Algorithms for Marketing"

❖ *Harvard Business School, April 2012.*

TEACHING ACTIVITIES

	Average Evaluation
Creating Customer Value, 2022-now (Executive MBA, RSM)	4.9 / 5
Customer Analytics, 2021-now (MSc Business Analytics & Management, RSM)	4.9 / 5
Customer Centricity, 2020 – now (MSc Marketing Management, RSM)	4.7 / 5
Conjoint Analysis, 2016-2019 (MSc in Marketing, Tilburg U.)*	4.5 / 5
CentER Honors Program, 2014-2018 (Bachelor & MSc, Tilburg U.)	4.5 / 5
Advanced Marketing Research, 2011-2015 (MSc Marketing, Tilburg U.)	4.3 / 5
International Marketing Research, 2006-2010 (MSc Marketing, ESE)	4.2 / 5
Advanced Research Techniques, 2016-2018 (Ph.D. program, Tilburg U.)	-
Business Research, 2016-2018 (Bachelor - guest lectures, Tilburg U.)	-
Bachelor and Master's Thesis Marketing 2006-present	-

* Best teaching awards 2017 & 2019.

PHD SUPERVISION AND PLACEMENT

Constant Pieters (2014-2020), financed by NWO Vidi grant

> ❖ *Defended his PhD in December 2020*
> ❖ *Placement: Assistant Professor at Copenhague Business School*

Zoltan Puha (2018-present), financed by a Tilburg Data Science Center grant in collaboration with the Jheronomus Academy of Data Science and the KPN customer analytics team

> ❖ *Defense planned in Spring 2024*
> ❖ *Placement: Data Scientist at Zalando, Berlin*

MEMBER OF DOCTORAL COMMITTEES

Mainak Sarkar (ESSEC Paris), 2022
Emilie Esterzon (Université Libre de Bruxelles), 2021
Hang-yee Chan (Rotterdam School of Management), 2020
Esther Eijlers (Rotterdam School of Management), 2020
Ana Martinovici (Tilburg University), 2019
Pierrick Piette (University of Lyon), 2019
Håvard Huse (Norwegian School of Economics), 2019
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.

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