



Darwin Pricing Data Science Services

Consulting, development and training in **data science,**
sales forecasting and
dynamic pricing





Your Data Science Consultant

Sébastien Fauvel

Academic Background:

Elite university École normale supérieure in Paris (Physics/Informatics 2003-2008)

Mathematics teacher (University of Jena, CAPES 2007)

Professional Experience:

Development of the demand forecasting system of the **H&M group** in Stockholm (2019-20)

Development of the dynamic pricing platform of **Hachmeister+Partner** (2018-19)

Development of the dynamic pricing system of the **OTTO group** in Hamburg (2017-18)

CEO and founder of **Darwin Pricing** in Basel, development of dynamic pricing solutions, keynote speaker and data science consultant (since 2013)





Recent Projects

- ★ Development of the demand forecasting and replenishment optimization solution of the **H&M Group** in Stockholm (second-largest global clothing retailer, \$25bn annual revenue)
- ★ Development of the next-generation sales forecasting and dynamic pricing solution of the **OTTO group** in Hamburg (omnichannel retail, \$13bn annual revenue)
- ★ Development of a sales forecasting and dynamic pricing solution for the sport and fashion stores **Hagemeyer** and **L&T** in Minden and Osnabrück
- ★ Development of a dynamic geo-pricing solution for **Worldwide Cyclery** in the US (professional biking equipment), used on over 700 online retail stores







H&M Group

Demand forecasting and replenishment optimization

With an annual turnover of over \$25bn, the H&M group is the second-largest global clothing retailer. After having partnered up with the Boston Consulting Group to build first proof-of-concepts, H&M launched the H&MxAI initiative to become the leading fashion retailer in advanced analytics, and make use of machine learning all along the supply chain.

Darwin Pricing has been chosen as a strategic partner to develop internally the first H&MxAI use case that hasn't been incubated by BCG. Within a growing team of 10 data scientists, software engineers and business analysts, we have developed the demand forecasting solution used by the assortment office to optimize buying quantities for the next season, working on software requirement specifications with the stakeholders using an agile methodology (SCRUM), and training data scientists on best practices in software development.







OTTO Group

Dynamic pricing and data science training

With an annual turnover of over \$13bn, the OTTO group is one of the major players in online and multichannel retail in Germany. Preparing the strategic sales of its dynamic pricing spin-off Blue Yonder, the OTTO group was seeking to acquire internally state-of-the-art data science, sales forecasting and dynamic pricing skills in order to own these core competences internally.

Darwin Pricing has been chosen as a strategic partner to develop internally the next-generation sales forecasting and dynamic pricing solution, to work on software requirement specifications with the stakeholders using an agile methodology (SCRUM) and to train a new team of eight data scientists and data engineers on dynamic pricing topics.

otto group

ABOUT YOU **baumarkt direkt** **BAUR** **bonprix**
it's me!

Crate&Barrel **DBR** **FRANKONIA** **fg**
Die Stadt nach dem Eckher

heine **INTO-e** **KÜCHE&CO** **LASCANA**
IT'S A WOMAN'S WORLD

limango **MANUFACTUM** **MYTOYS GROUP** **OTTO**

otto group russia **OSP** **Otto Japan** **Project A**
Otto Group Solution Provider A member of the otto group

QUELLE **Schwab** **shopping24** **smatch.com**
www.quelle.de internet group

SportScheck **UNITO** **Witt-Gruppe** **WOHNKLAMOTTE**
A member of the otto group



Achieved Results

1

Thanks to our agile approach, the fashion and sports department teams are fully satisfied by the achieved results in terms of sales revenue, profit margin and stock management

2

A team of eight data scientists and data engineers, as well as two product owners and a SCRUM coach, have been trained on functional and technical topics related to dynamic pricing: Big data, data science, multichannel retail, sales forecasting and price optimization

3

Based on these results, the domestic appliance, consumer electronics and home textiles department teams could engage with confidence their transition to the new in-house dynamic pricing system

4

The dynamic pricing spin-off Blue Yonder could be sold to JDA Software without engaging any strategic risks for the OTTO group, and the overall satisfaction of the department teams improved in terms of results, costs, reactivity and data security



Impact

An A/B test has been run on over 20'000 products for 12 weeks. The prices of both product groups have been set in alternance either manually by the department teams, or automatically by the dynamic pricing solution. The achieved results have been very stable and quickly exceeded all expectations:

Sales Volume

+52%

ordered items

Sales Revenue

+31%

generated revenue

Net Profits

+20%

realized profits





Fashion Stores Hagemeyer and L&T

Dynamic pricing in physical stores

Hachmeister+Partner, leading business consulting and benchmarking firm in the sports, fashion and lifestyle sectors in Germany, has been collecting and analysing the point-of-sales data of the largest chains of stores in Germany for over 60 years.

For two of their clients, the fashion stores Hagemeyer and L&T in Minden and Osnabrück, Hachmeister+Partner has chosen Darwin Pricing to develop a sales forecasting and dynamic pricing system used in physical stores in order to reduce end-of-season surplus stock while maximizing the realized profits.

This dynamic pricing solution for physical stores, which takes into account the sales performance of fashion and sports brands in the whole sales region, competitor prices and weather conditions as well, is to be extended to the whole customer base of Hachmeister+Partner in the frame of a long-term partnership.

hachmeister+partner

Hagemeyer





Impact

A total of 600'000 prices have been optimized on a daily basis for all 6 physical stores of Hagemeyer and L&T. The cloud-based dynamic pricing solution integrates sales and weather forecast data as well as online competitor prices. The achieved results speak for themselves:

Sales Revenue

+5%

generated revenue

Calculation

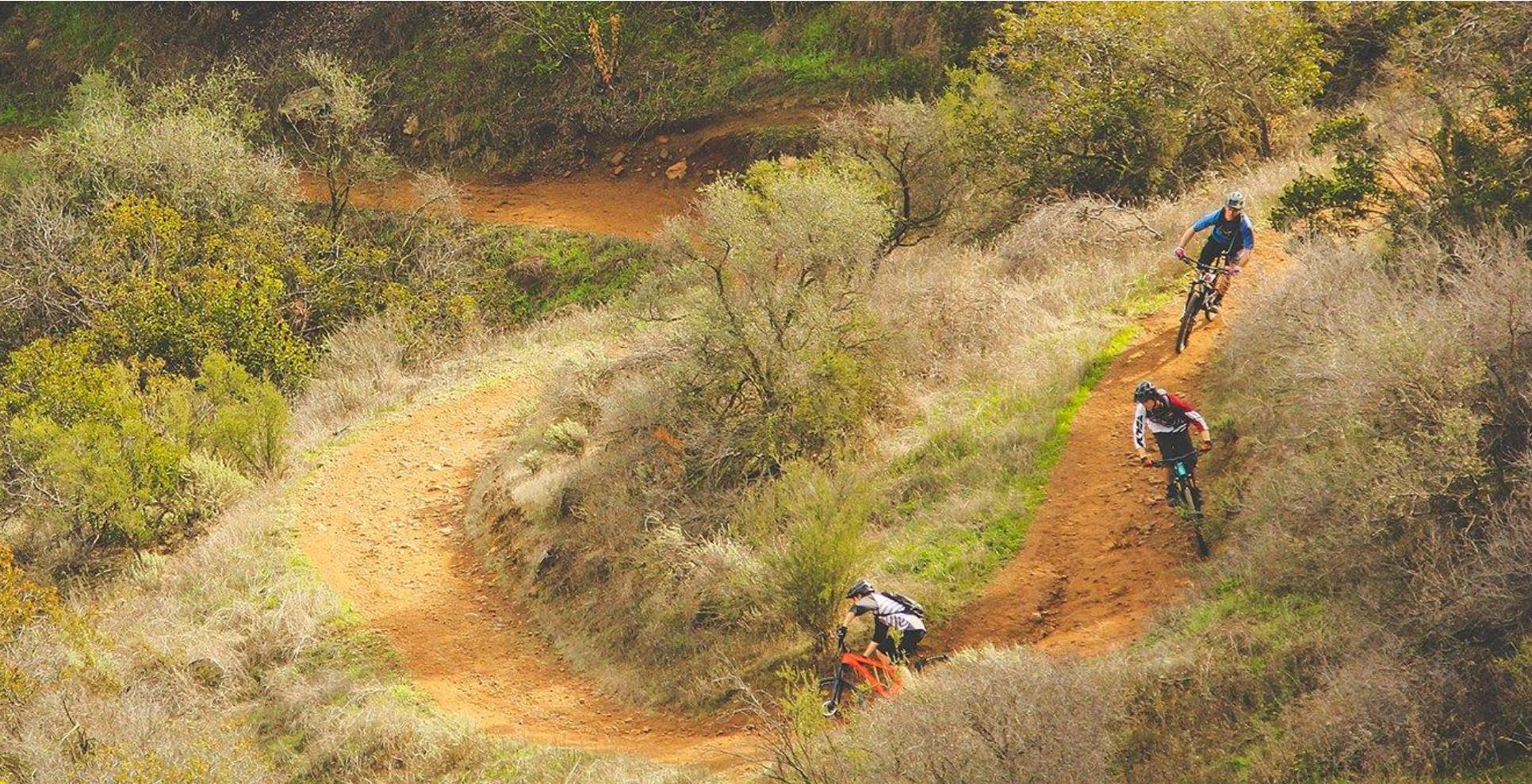
+10%

total calculation

Net Profits

+15%

realized profits





Worldwide Cyclery

Dynamic geo-pricing in online retail



Worldwide Cyclery is an internationally recognized B2B and B2C reseller of professional biking equipment, based in Newbury Park (CA) and Lancaster (PA).

In the context of the commercial expansion of their reselling activities in the US and internationally, and in a very competitive market with limited profit margins, they were seeking to optimize their discount strategy by country, region and city.

Darwin Pricing has been chosen as a partner to develop a geolocation, discount targeting and price optimization solution for their online store. This solution involves IP geolocation techniques, artificial intelligence to measure the price elasticity of demand by region as a function of the discount level, and dynamic geo-pricing to adjust their online promotions to the local market situation and improve the realized profits.



Impact

An A/B test has been run on two randomly chosen online visitor groups for 4 months. The first group has received a 10% discount offer on their first order (global optimal), while the second group has received a personalized percent discount on their first order, where the discount level, optimized automatically, depended on their geolocation. The achieved results were excellent in all sales regions:

Conversion Rate

+7%

new customers per month

Sales Revenue

+38%

generated revenue

Net Profits

+35%

realized profits



Contact us to boost the performance of your pricing & data science teams!



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