

bonprix sets prices with AI-based price optimization

How Blue Yonder used AI to help the fashion retailer improve its bottom line in Russia

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Using artificial intelligence (AI) to boost sales

In a complex and changing market, retailers need to transform their internal processes to meet the challenges of rising costs and falling profits.

Tackling this issue head-on, fashion retailer bonprix decided to use price optimization software to improve its margins. And, with data key to remaining competitive, the company also wanted to gain valuable insights via machine learning to optimize its pricing processes even further.

Following discussions with Blue Yonder, the retailer decided to move away from rigid price-conversion tables to an automated AI-based solution. Allowing for specific price controls for different markets and product ranges, the AI-based technology is now allowing bonprix to set prices across its international markets, automatically.

The new price optimization solution has resulted in an increase in revenue as well as profit, particularly in the Russian market where it has improved the retailer's bottom line and directly contributed to improved margins.

Optimization through AI technology



Starting position

Too high prices for many products in the highly-competitive Russian market



AI-based solution

A machine learning solution that delivers optimized pricing decisions for every product



Result

Increased demand and higher gross profits

About bonprix

bonprix is an international fashion company based in Hamburg, Germany. The mail-order retailer sets the latest trends and translates them into inspiring fashion for every occasion, in many styles and sizes. Through its global online shops, catalogs and store locations, bonprix sells women's, men's and children's fashion from five house brands that introduce new collections on a monthly basis.

bonprix is one of the top-five online shops in Germany (study: E-commerce Market in Germany 2015 by EHI Retail Institute/Statista) and has also established itself as a successful business in 30 countries across Europe, Russia, North America and South America. bonprix employs 3,000 people and had €1.5 billion in revenue in the 2016 business year, making it one of the strongest companies within the Otto Group.

Project Overview

Country	Russia
Branch	Mail-order fashion retail (catalog and online)
Range	Women's, men's and children's fashion
Challenges	<ul style="list-style-type: none">• Varying parameters in different countries• How to achieve granular price optimization instead of using fixed price-conversion tables
Goals	<ul style="list-style-type: none">• Increase margins and profitability• Market-focused, flexible price setting aided by automated decisions• Increase customer demand• Increase revenues and profit• Create value from machine learning results
Blue Yonder solution implemented	Blue Yonder Price Optimization

Results after A/B testing for four months

- Sales increased by a double-digit percentage
- Considerable profit gains
- Increased gross profit per article (after costs)
- Improved target functions (weighted: 50% profit, 50% yield)
- Attracted new customers

Optimized price setting for international markets

In 2016, bonprix implemented Blue Yonder Price Optimization in its key international markets. The goal: optimized and flexible pricing decisions for every product, while improving revenue and profit.

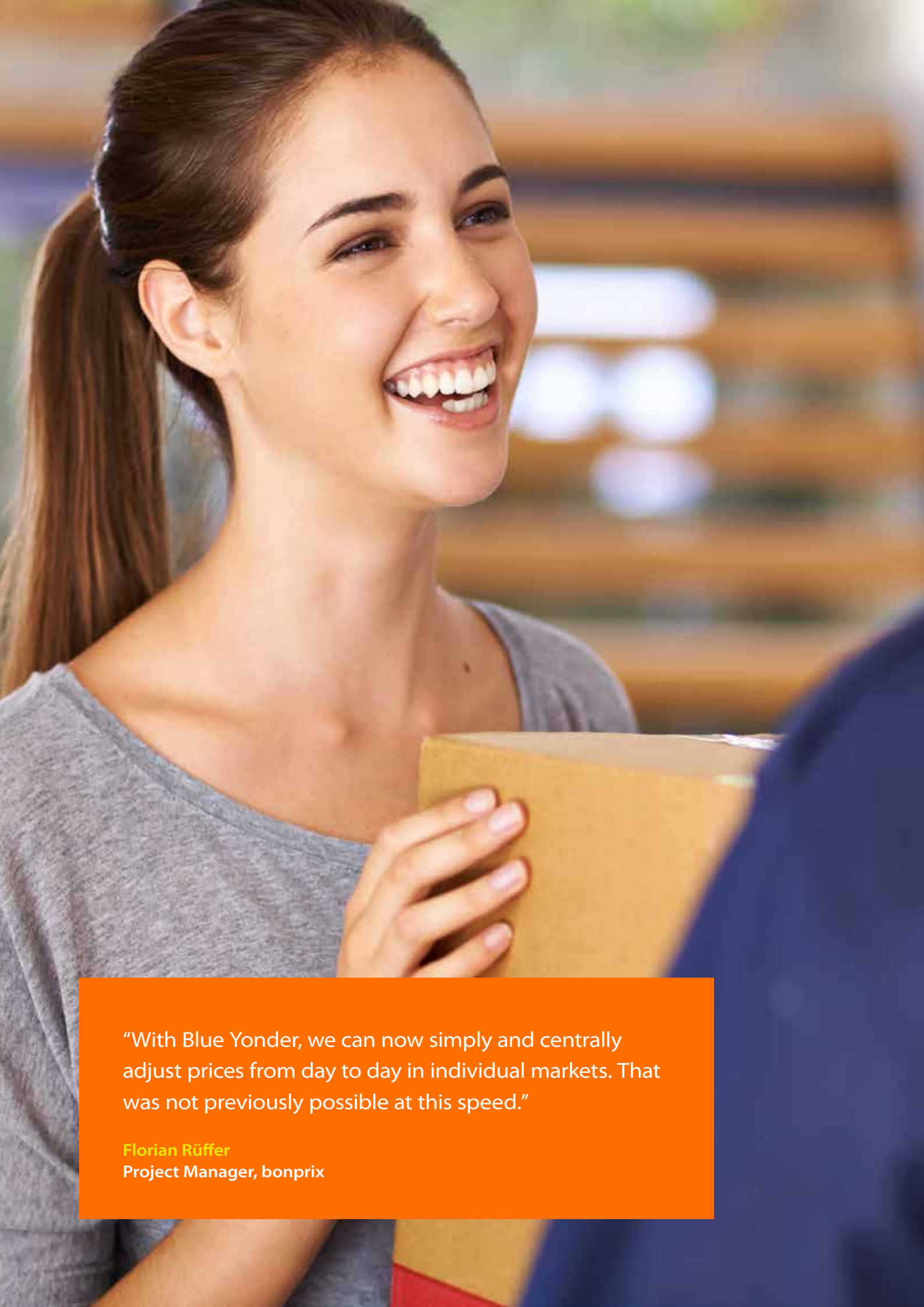
The need for a better pricing solution was raised by the bonprix purchasing department, which is responsible for pricing decisions across the retailer's stores. The dynamic pricing solution was first implemented in the Netherlands and then rolled out internationally.

Before: Rigid price-conversion tables

Prior to the implementation of Blue Yonder's machine learning Price Optimization solution, bonprix Germany was responsible for agreeing prices across the entire international market. Each market followed a price-conversion table to set prices and calculate mark-ups or mark-downs manually. However, in Russia, pricing plays a much more significant role in customer buying decisions than it does in Germany, and it was difficult to reflect this using this method. Also, it was all but impossible to rapidly react to changes in the different markets and adjust prices automatically for each product and store.

Today: Individual, dynamic price setting

Today, Blue Yonder Price Optimization successfully manages price setting and steering for each market. Incorporating and responding to the retailer's business strategy, the solution measures the relationship between price changes and customer demand and automatically delivers the right price based on the priorities of each store and market.



“With Blue Yonder, we can now simply and centrally adjust prices from day to day in individual markets. That was not previously possible at this speed.”

Florian Ruffer
Project Manager, bonprix

Market and collection specific price setting: introducing and developing the system

bonprix recently applied the AI-based solution to all of its women's, men's and children's collections in Russia. The solution was then further developed to allow bonprix to focus on the automatic pricing of individual collections.

Stock and replenishment levels are a factor in the price setting. This allows the price suggestion to consider what stock levels are at the warehouse and what is available. While the base price continues to be set by the retailer's purchasing department, intra-seasonal price setting is now done automatically with no need for manual intervention.

Winning new clients and increasing earnings

In Russia, bonprix was struggling to meet its targets when it came to reaching new customers. But today, the Blue Yonder solution has enabled bonprix to make adjustments for every collection and differentiate prices to attract new customers.

To recover revenue, the retailer has been able to use insights to target regular customers with collections that have particularly good margins. This has helped bonprix to improve results against customer and earnings targets.

Using machine learning to optimize results

With Blue Yonder Price Optimization software, bonprix has achieved higher sales across its various markets, and increased its overall results. Indeed, the mail order retailer has seen a positive difference when it comes to all key performance indicators (KPIs) set out in its business strategy. In particular, Russia saw an increase in the number of items sold and an increase in revenues.

What's more, A/B tests in the Russian market have proved that the Blue Yonder algorithms improve themselves over time, without any manual intervention. As a result, while Price Optimization provided a measurable impact and return on investment in a short period, results are likely to improve even further.

Ultimately, Price Optimization enables bonprix to set prices individually and specific to each market, while increasing its influence in the international market with consistent and improved earnings.



Beneficial side effect: Improved data quality

By working with Blue Yonder, bonprix has gained access to a treasure trove of data. The purchasing department now has the best prepared, structured and highest quality data in the company.

Beyond the initial pilot project, this data can be analyzed in other ways to make improvements to the company's bottom line, such as calculating cross-price elasticity to determine what effect a price change on one product has on others. Other correlations can also be determined, such as price-related consumer behavior. This lets bonprix align its offerings even closer with customer expectations.

Concrete uses for bonprix

Price Optimization enables bonprix to set prices individually and specific to the market as well as increase its influence in the international market with consistent or improved earnings, as was seen in Russia.



Next steps: Further development and fine-tuning the solution

Today, bonprix has applied the AI solution to all relevant markets. In the future, the focus will be on drilling down into each market individually and narrowing down the target functions.

Functionality that allows for collection-specific price optimization, and price setting with consideration to stock levels is allowing the retailer to maximize each market's potential. This has generated a lot of feedback and ideas as to how the solution can be further implemented. For example, looking at shopping baskets or connecting markets through bundling.

In the future, even marketing campaigns such as "20% off" or free delivery will be incorporated into each analysis.

Other aspects that can be considered by the algorithm include:

- Was the item featured in the catalog?
- What page share in the catalog did the item have?
- Is the item on the cover or in proximity to the cover?
- What was the catalog's distribution?

Using this information to fine tune and further develop the algorithm, bonprix will be able to set the prices the shopper expects, better understand the price decision-making process of its shoppers, and use analysis to better plan purchasing decisions.



About Blue Yonder

Blue Yonder, a JDA company, is a leading provider of artificial intelligence (AI) and machine learning (ML) solutions that enable retailers, consumer products and other companies to intelligently transform their operations and make more profitable, automated business decisions that deliver higher profits and optimized customer experiences.

With AI/ML learnings embedded into their core supply chain and merchandising processes, companies can respond quicker to dynamic market conditions and customer preferences, resulting in increased revenues and margins.

Developed by one of the largest teams of PhD-level data scientists dedicated to retail and the supply chain, Blue Yonder's AI/ML solutions deliver more than 600 million intelligent, automated decisions a day.

Blue Yonder was founded in 2008 in Karlsruhe, Germany, by former CERN scientist Professor Michael Feindt and acquired by JDA Software in 2018. The company has received numerous awards, including the Experton Big Data Leader Award 2016, the BT Retail Week Technology Award, the IGD Award 2017 for Supply Chain Innovation.

Blue Yonder provides its solutions through Microsoft Azure and was named one of Microsoft's retail partners of the year in 2018.

Blue Yonder

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