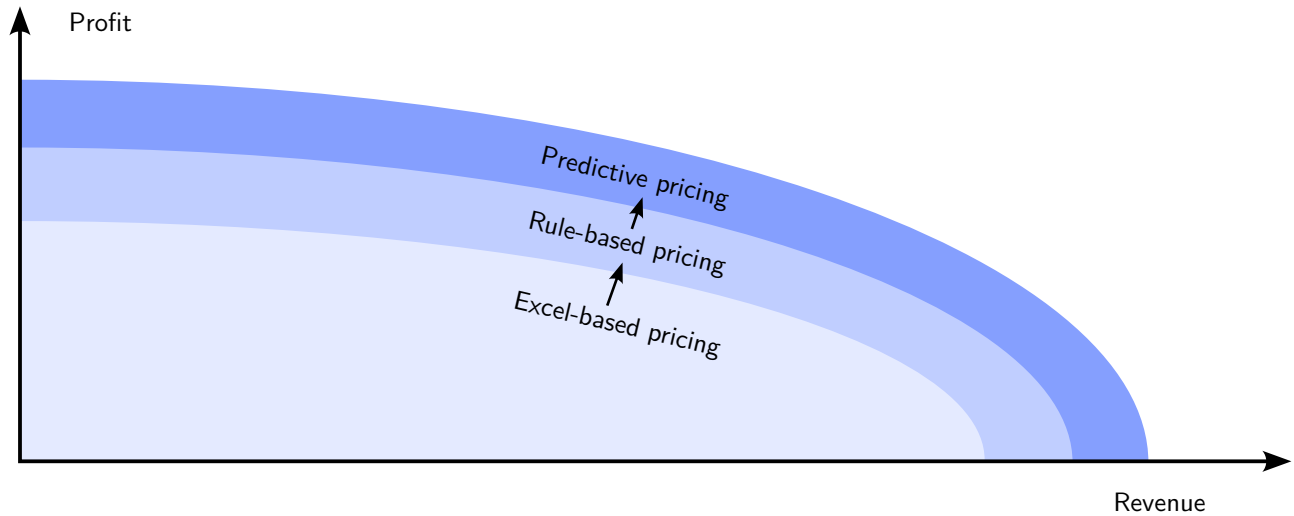


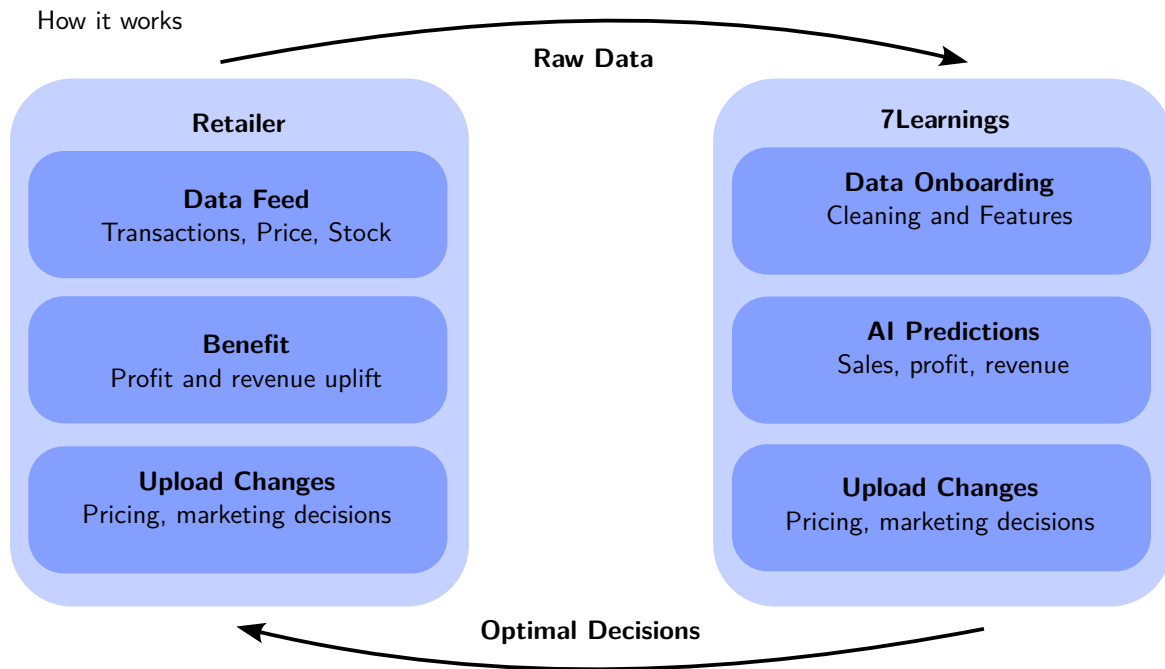
# 7Learnings Documentation

## 1 Introduction

Thank you for your interest in the most advanced optimization service for retailers. This document introduces you to our predictive pricing service and provides you with initial information on data transport and data definitions:



Before we get to the details of data format and API, we show how we optimize your pricing and marketing decisions:



More specifically, we provide the Input Data Specification (description of the data we consume, next section 3) and the Output Data Specification (description of the data we produce, section 4).

## 2 Data Integration APIs

The following table lists which input APIs we support:

Table 1: Supported Data Integration APIs

No.	Source	Tables	Format	Recommended
1	BigQuery	All	BigQuery table	+++
2	Snowflake	All	Snowflake table	+++
3	Google Cloud Storage	All	CSV/parquet files	++
4	Amazon S3 Storage	All	CSV/parquet files	+
5	Azure Blob Storage	All	CSV/parquet files	+
6	SFTP	All	CSV/parquet files	+
7	HTTPS	All	CSV/parquet files	+
8	FTPS	All	CSV/parquet files	+
9	Amazon	Transactions	Amazon API	++
10	Google Analytics	Traffic	Google API	+++
11	Amazon Ads	Traffic	Amazon Ads API	+++
12	Google Shopping	Traffic	Google Shopping API	+++
13	Tradebyte	Prices, Stock, Attributes	Tradebyte API	+++

### 3 Input Data Specification

Our input data comprises of required tables that are needed for our service to run and optional additional tables. The optional tables can also be added to the project at a later stage.

Table 2: Input Data Tables

Table name	Short description	Transfer
Channels	Current list of sales channels	initial
Purchase Prices	Current purchase prices of your products	automated
Transactions	Sales data of products with revenues, profits, and costs	initial and automated
Prices	Current price information	automated
Product Attributes	Current and historical product information	automated
Stock	Current stock information	automated
Traffic	Organic and paid activity information	initial and automated
Competitor Prices	Current competitor prices	automated
Bundles	Current list of bundles and the products they contain	automated
Forecast Voucher Rate	Prediction of future Voucher Rate	automated

*Info:* Tables colored **blue** are **required**. Tables colored **gray** are **optional**.

### 3.1 Channels

Table 3: Channels: Contains current list of the sales channels for which you would like to optimize prices. To reduce channel complexity and cost, you can send us virtual channels from which optimization results get replicated into several actual channels (e.g., the prices for the market EU will be replicated into the markets DE, FR, IT, and ES).

Column	Possible Data Types	Description
market	text	Country where the product was sold using ISO 3166 format (e.g. DE for Germany)
channel	text	Sales domain where the product was sold (e.g. amazon.de for Amazon sales channel)
conv_fkt_to_main_currency	decimal, integer	Factor the foreign currency has to be multiplied with in order to get to values in the main currency (e.g. 1.2 to get from GBP to EUR)
channel_currency	text	Three letter code for local channel specific currency according to ISO 4217 (e.g. EUR for Euro currency)
upload_market	text	The country code according to ISO 3166 format (e.g., DE for Germany). This is used to differentiate the market ISO code from any additional sub-channel definitions.
upload_currency	text	The currency code according to ISO 4217 format (e.g., EUR for Euro). This is used to differentiate the channel currency from any additional sub-channel definitions.
upload_channel	text	The sales domain where prices will be uploaded (e.g., amazon.de for Amazon sales channel). This is used to distinguish the primary channel in the optimization process from any additional sub-channel where prices are uploaded (e.g., zafr for Zalando France if optimized prices should be sent via an API call to tradebyte).
upload_conv_fkt_to_main_currency	decimal, integer	The factor by which the foreign currency has to be multiplied to convert to values in the main currency (e.g., 1.2 to convert from GBP to EUR). This is used to differentiate conversion factors from any additional sub-channel definitions.

*Info:* Columns colored blue are required, gray are optional, and red are recommended.

## 3.2 Purchase Prices

Table 4: Purchase Prices: Contains the current purchase prices of the products you would like to optimize. If the same product has a different purchase price depending on the market or channel, then please provide the corresponding markets and channels as well. Monetary values such as purchase prices should be sent as net values in the main accounting currency, while other prices should be sent as gross values in the local market currency.

Column	Possible Data Types	Description
market	text	Country where the product was sold using ISO 3166 format (e.g. DE for Germany)
channel	text	Sales domain where the product was sold (e.g. amazon.de for Amazon sales channel)
product_id	text	Unique identifier of the product or SKU
purchase_price	decimal, integer	Net cost of a single unit sold, including shipping cost to the warehouse (e.g. landed cost) in main currency

*Info:* Columns colored blue are required, gray are optional, and red are recommended.

### 3.3 Transactions

Table 5: Transactions: Contains your sales data, including revenues, profits, and costs for the past two to three years. Our system either handles daily updated snapshots of the full history. Or our system receives the full history once and then daily snapshots of new transactions of the last three months or if previous transactions were changed. Monetary values such as purchase costs, outbound costs or voucher spendings should be sent as net values in the main accounting currency.

Column	Possible Data Types	Description
market	text	Country where the product was sold using ISO 3166 format (e.g. DE for Germany)
channel	text	Sales domain where the product was sold (e.g. amazon.de for Amazon sales channel)
product_id	text	Unique identifier of the product or SKU
sales_before_returns	integer	Number of non-cancelled items ordered (e.g. 2 if two items were ordered)
revenue	decimal, integer	Sum of net product revenue in main currency after returns without customer payments for the delivery/return of the product
profit	decimal, integer	Sum of net profit in main currency
purchase_cost	decimal, integer	The products' sum of net cost in main currency including shipping cost to the warehouse (e.g. landed cost). Can be reduced if returned items can be resold.
conv_fkt_to_main_currency	decimal, integer	Factor the foreign currency has to be multiplied with in order to get to values in the main currency (e.g. 1.2 to get from GBP to EUR)
tax_rate	decimal, integer	Rate of sales tax used to calculate net revenue from gross price (e.g. 19% for most products in Germany)
voucher_spending	decimal, integer	Sum of net voucher spending after returns in main currency (e.g. $5/(1+0.19)=4.2$ EUR voucher for newsletter). This attribution is required. Alternatively such attribution can be provided in the Red Price discount spending column instead. If not available please send a 0.0 instead.
order_id	text, integer	Unique identifier for the order to which the product belongs
returns	integer, decimal	Number of items returned
time	time stamp	Date and time when the items were ordered as an ISO 8601 UTC timestamp (e.g. 2024-02-06 22:54:51+00:00)
red_price_discount_spending	decimal, integer	Sum of additional discount spending in main currency on top of vouchers and discounts (e.g. 4 EUR customer specific rebate). This attribution is required. Alternatively such attribution can be provided in the Voucher spending column instead. If not available please send a 0.0 instead.
basket_position	integer, decimal	Rank that SKU has in the basket
inbound_cost	decimal, integer	Logistic and discard costs in main currency linked to handling these returns.

Continued on next page

Table 5: Transactions: Contains your sales data, including revenues, profits, and costs for the past two to three years. Our system either handles daily updated snapshots of the full history. Or our system receives the full history once and then daily snapshots of new transactions of the last three months or if previous transactions were changed. Monetary values such as purchase costs, outbound costs or voucher spendings should be sent as net values in the main accounting currency. (Continued)

Column	Possible Data Types	Description
outbound_cost	decimal, integer	Costs in main currency of sending these products from the warehouse to the customer. You can add logistic cost, shipment cost, call center cost, and payment cost. And you can subtract shipping revenue paid by the customer.
marketing_cost	decimal, integer	Net marketing costs (SEA, price comparison commission, other advertising) linked to these sales after returns
commission_cost	decimal, integer	Net commission costs in main currency paid for selling these products on a third party platform (e.g. Zalando, or Amazon)
other_cost	decimal, integer	Other costs in main currency you consider in your profit calculation for these sales
customer_lifetime_value	decimal, integer	Incremental future profit increase driven by the transaction in main currency. Is typically higher for new customers and customers with higher repurchase rates.

*Info:* Columns colored blue are required, gray are optional, and red are recommended.

### 3.4 Prices

Table 6: Prices: Contains your current prices of products. Ideally, it also contains the historic prices already in the beginning of the project. Generally, prices should be sent as gross values in the local market currency.

Column	Possible Data Types	Description
market	text	Country where the product was sold using ISO 3166 format (e.g. DE for Germany)
channel	text	Sales domain where the product was sold (e.g. amazon.de for Amazon sales channel)
product_id	text	Unique identifier of the product or SKU
gross_black_price	decimal, integer	Gross price before vouchers in local currency including sales taxes
gross_red_price	decimal, integer	Gross price after discounts and before vouchers in local currency including sales taxes
gross_recom_price	decimal, integer	Recommended Retail Price (RRP) provided by the supplier of the product in local currency including sales taxes
active_since	time stamp	Time at which the values in this row changed as an ISO 8601 UTC timestamp (e.g. 2022-04-24T22:54:51Z)
tax_rate	decimal	Rate of sales tax used to calculate net revenue from gross price (e.g. 19% for most products in Germany)
is_active	truth value	Indicator that determines if the product is available for purchase in the specified period, regardless of stock levels or other factors you are already sending.

*Info:* Columns colored blue are required, gray are optional, and red are recommended.



### 3.5 Product Attributes

Table 7: Product Attributes: Contains product information. Besides current products, it should also include products you do not sell anymore (i.e., products in the transaction history). Please add optional and recommended descriptive attributes to support precise predictions.

Column	Possible Data Types	Description
product_id	text	Unique identifier of the product or SKU
product_group_id	text	Marks products belonging together (e.g. across sizes) - can be used for prices to move in the same direction
product_category_1	text	Top-level category the product belongs to (ideally less than 20 distinct category values)
product_category_2	text	Product sub-category the products belongs to
product_category_3	text	Product sub-sub-category the products belongs to
name	text	Name of the product
producer	text, integer	Manufacturer of the product
brand	text, integer	Name of the brand of the product
product_url	text	URL where the product can be found
ean	text	13 digit International Article Number (also known as European Article Number)
color	text	Main color of the product
size	decimal, integer, text	Size of the product
is_own_brand	text, truth value	True if retailer owns the brand
season	text	Main sales period of the product (e.g. summer, winter, ...)

*Info:* Columns colored blue are required, gray are optional, and red are recommended.

### 3.6 Stock

Table 8: Stock: Contains current stock and availability information. Here, you can also send future stock levels.

Column	Possible Data Types	Description
market	text	Country where the product was sold using ISO 3166 format (e.g. DE for Germany)
channel	text	Sales domain where the product was sold (e.g. amazon.de for Amazon sales channel)
product_id	text	Unique identifier of the product or SKU
active_since	time stamp	Time at which the values in this row changed as an ISO 8601 UTC timestamp (e.g. 2022-04-24T22:54:51Z)
stock_start_of_day	integer	Number of items available for sale in the beginning of the day
start_liquidation_date		Date from which the Sell Through Rate of the product is calculated (e.g. Season Start Date)
end_liquidation_date		Date until which the product should reach the Target Sell Through Rate (e.g. Season End Date)
end_liquidation_value	decimal	Product's net value at liquidation end date. It will be used to calculate the write-off for the seasonal profit calculation. The purchase price is the default value if not specified.
sell_through_rate_target	decimal	Share of Stock that should be sold out at Liquidation End Date

*Info:* Columns colored blue are required, gray are optional, and red are recommended.

### 3.7 Traffic

Table 9: Traffic: Contains organic and paid activity information on your website. It should contain current activity, and optionally past data.

Column	Possible Data Types	Description
market	text	Country where the product was sold using ISO 3166 format (e.g. DE for Germany)
channel	text	Sales domain where the product was sold (e.g. amazon.de for Amazon sales channel)
product_id	text	Unique identifier of the product or SKU
active_since	time stamp	Time at which the values in this row changed as an ISO 8601 UTC timestamp (e.g. 2022-04-24T22:54:51Z)
marketing_cost	decimal, integer	Net marketing costs (SEA, price comparison commission, other advertising) linked to these sales after returns
marketing_option_explanation	text	Description of the marketing steering strategy
marketing_option_float	decimal	Marketing steering that led to the clicks/traffic in the period
active_till	time stamp	Timestamp until which a KPI had a certain value (ISO 8601 UTC 2022-04-24T22:54:51Z)
total_clicks	decimal, integer	Total number of visitors per product from paid and unpaid sources (decimal in case several products share traffic)
paid_clicks	decimal, integer	Number of visits from paid sources

*Info:* Columns colored blue are required, gray are optional, and red are recommended.

### 3.8 Competitor Prices

Table 10: Competitor Prices: Contains current prices of competing offers.

Column	Possible Data Types	Description
market	text	Country where the product was sold using ISO 3166 format (e.g. DE for Germany)
channel	text	Sales domain where the product was sold (e.g. amazon.de for Amazon sales channel)
product_id	text	Unique identifier of the product or SKU
active_since	time stamp	Time at which the values in this row changed as an ISO 8601 UTC timestamp (e.g. 2022-04-24T22:54:51Z)
ean	text	13 digit International Article Number (also known as European Article Number)
comp_name	text	Name of the company selling the crawled product
comp_gross_red_price	decimal	Gross Red Price after discount including taxes in local currency excluding Shipping Price
comp_shipping_price	decimal	Price for shipping the product from the competitor warehouse to the end customer in local currency
comp_is_active	truth value	True if the product is online in the webshop and could be bought by the end customer in that period
comp_url	text	Link where the Competitor Price was crawled from
comp_delivery_days	integer	Number of days the competitor needs for shipping the product to the end customer

*Info:* Columns colored blue are required, gray are optional, and red are recommended.

### 3.9 Bundles

Table 11: Bundles: Table containing bundle information

Column	Possible Data Types	Description
product_id	text	Unique identifier of the product or SKU
bundle_id	text	Unique identifier of a bundle of products
product_qty	integer, decimal	Amount of products within a bundle e.g. a table tennis bundle contains 4 balls

*Info:* Columns colored blue are required, gray are optional, and red are recommended.

### 3.10 Forecast Voucher Rate

Table 12: Forecast Voucher Rate: Table containing a forecast of the voucher rate planned. You could for example specify 20% voucher rate if you are planning a campaign over the weekend.

Column	Possible Data Types	Description
market	text	Country where the product was sold using ISO 3166 format (e.g. DE for Germany)
channel	text	Sales domain where the product was sold (e.g. amazon.de for Amazon sales channel)
product_id	text	Unique identifier of the product or SKU
date	text	Calendar day in format "YYYY-MM-DD"
voucher_rate	decimal	Share of net revenue after returns spend on vouchers/coupons in percent

*Info:* Columns colored **blue** are **required**, **gray** are **optional**, and **red** are **recommended**.

## 4 Output Data Specification

For delivering optimized prices and marketing decisions, we can connect to the following APIs and provide the data in the following formats:

### 4.1 Data APIs

Optimizations and predictions can be shared in multiple ways.

Table 13: Supported Data Output format

No.	Tables	Format	Target	Recommended
1	Price/Marketing Changes	BigQuery table	BigQuery project	++
2	Price/Marketing Changes	Snowflake table	Snowflake project	++
3	Price/Marketing Changes	CSV file	User computer	+
4	Price/Marketing Changes	CSV/parquet files	Google Cloud Storage	++
5	Price/Marketing Changes	CSV/parquet files	Amazon S3 Storage	+
6	Price/Marketing Changes	CSV/parquet files	Azure Blob Storage	+
7	Price/Marketing Changes	CSV/parquet files	SFTP server	+
8	Price/Marketing Changes	CSV/parquet files	HTTPS server	+
9	Price/Marketing Changes	API Call	Custom API	++
10	Price Changes	API Call	Commercetools	+++
11	Price Changes	API Call	Salesforce	+++
12	Price Changes	API Call	Tradebyte	+++
13	Price Changes	API Call	Plentymarkets	+++

We output price/marketing changes as well as customized tables. The following tables show how this output data looks like:

Table of optimized prices changes by market, channel, and product ID. We can fully customize this table to the need of the retailer.

Table of optimized marketing changes by market, channel, and product ID. We can fully customize this table to the need of the retailer.

## 5 7Learnings Optimization Rules

These are the rules we support by default in our frontend:

Table 14: Default Rules

Name	Purpose	Example
Discount = value (in %)	Limit discount to a particular value relative to gross black price	Discount = 20%
Profit Margin $\geq$ value (in %)	Limit minimum profit margin	Profit margin $\geq$ 50%
Profit Margin $\leq$ value (in %)	Limit maximum profit margin	Profit Margin $\leq$ 20%

Continued on next page

Table 14: Default Rules (Continued)

Name	Purpose	Example
Net Optimal Price $\geq$ Purchase Price * value (in %)	Avoid falling below the purchase price in case of revenue maximizing optimizations	Purchase price = 40 EUR, Value = 1 $\Rightarrow$ Optimal Price $\geq$ 40 EUR
Net Optimal Price $\leq$ Purchase Price * value (in %)	Avoid very high margins	Purchase price = 40 EUR, Value = 3 $\Rightarrow$ Optimal Price $\leq$ 120 EUR
$ \text{Price Change}  \leq$ value (in %)	Limit maximum price change	Value = 0.1 $\Rightarrow$ Price Change $\leq$ 10%
Price Change $\geq$ value (in %)	Limit minimum price change	Value = 0.1 $\Rightarrow$ Price Change $\geq$ 10%
Price Change $\leq$ value (in %)	Limit maximum price change	Value = 0.1 $\Rightarrow$ Price Change $\leq$ 10%
Current Price OR $ \text{Price Change}  \geq$ value (in %)	Change prices by at least a certain percent or keep the current price	Value = 0.1 $\Rightarrow$ Price Change $\leq$ 10%
Optimal Price $\geq$ value	Set minimum current price	Value = 20.00 $\Rightarrow$ Optimal Price $\geq$ 20.00
Optimal Price $\leq$ value	Set maximum optimal price	Value = 50.00 $\Rightarrow$ Optimal Price $\leq$ 50.00
$ \text{Marketing Option Change}  \leq$ value	Limit change of marketing steering	Value = 0.1 $\Rightarrow$ $ \text{Marketing Option Change}  \leq$ 0.1
Marketing Option $\geq$ value	Set minimum marketing option	Value = 0.3 $\Rightarrow$ Marketing Option $\geq$ 0.3
Marketing Option $\leq$ value	Set maximum marketing option	Value = 0.5. Rule $\Rightarrow$ Marketing Option $\leq$ 0.5
Optimal Price $\geq$ Current Price * value (in %)	Set minimum price to current price multiple	Current Price = 60.00, Value = 1 $\Rightarrow$ Optimal Price $\geq$ 60.00
Optimal Price $\leq$ Current Price * value (in %)	Set maximum price to current price multiple	Current Price = 60.00, Value = 1 $\Rightarrow$ Optimal Price $\leq$ 60.00
Optimal Price = Current Price * value (in %)	Set optimal price to specific price	Current Price = 60.00, Value = 1 $\Rightarrow$ Optimal Price = 60.00
Optimal Price $\geq$ Min Comp Price * value (in %)	Set minimum optimal price to minimum competitor price multiple	Min Comp Price = 20.00, Value = 1 $\Rightarrow$ Optimal Price $\geq$ 20.00

Continued on next page



Table 14: Default Rules (Continued)

Name	Purpose	Example
Optimal Price $\leq$ Min Comp Price * value (in %)	Set maximum price to not price too far away from competition	Min Comp Price = 100.00, Value = 1.2 $\Rightarrow$ Optimal Price $\leq$ 120.00
Optimal Price = Min Comp Price * value (in %)	Set optimal price to minimum competitor price multiple	Min Comp Price = 20.00, Value = 1 $\Rightarrow$ Optimal Price = 20.00
Predicted Sales $\leq$ Target Sales * value (in %)	Avoid overselling a product	Target Sales = 10.00, Value = 1.2 $\Rightarrow$ Select price where predicted sales $\leq$ 12
Predicted Sales $\geq$ Target Sales * value (in %)	Avoid high overstock at season-end	Target Sales = 10.00, Value = 0.8 $\Rightarrow$ Predicted Sales $\geq$ 8
Price Distance to Min Comp Price  $\leq$ value (in %)	Limit maximum price distance to competitor price	Min Comp Price = 20.00, Value = 0.1 $\Rightarrow$ 18.00 < Optimal Price < 22.00
Discount $\geq$ value (in %)	Set minimum discount relative to the gross black price	Value = 0.4 $\Rightarrow$ Discount $\geq$ 40%
Discount $\leq$ value (in %)	Set maximum discount relative to the gross black price	Value = 0.5 $\Rightarrow$ Discount $\leq$ 50%
Stock Reach in Weeks $\leq$ value	Reduce the price to sell-off a product after a defined number of weeks	value = 2, current + expected stock = 20 $\Rightarrow$ Select Optimal Price where predicted sales/week > 10 items
Stock Reach in Weeks $\geq$ value	Increase the price, so that there still is stock available after a specified number of weeks	value = 2, current stock + expected stock from returns = 20 $\Rightarrow$ Select Optimal Price where predicted sales/week < 10 items
Min days after last price change = value	Wait a specified number of days after the last price change	Value = 7, Last Price Change 3 days ago $\Rightarrow$ Price Change = 0%

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Table 14: Default Rules (Continued)

Name	Purpose	Example
Optimal Price $\geq$ Price maximizing Liquidation End Profit * value (in %)	Avoid discounts that reduce long-term profitability	Value 100%, Liquidation End Profit Max Price 16.99 $\Rightarrow$ Optimal Price $>$ 16.99
Optimal Price $\leq$ Price maximizing Liquidation End Profit * value (in %)	Avoid large write-offs for products that don't sell well at Liquidation End	Value 150%, Liquidation End Profit Max Price 19.99 $\Rightarrow$ Optimal Price $<$ 29.99
Liquidation End Profit $\geq$ Max Liquidation End Profit * value (in %)	Avoid moving too far away from price that maximizes your long-term profitability	Value 70%, Highest Liquidation End Profit 100€ $\Rightarrow$ Optimal Price Liquidation End Profit $>$ 70€
Min Salvage Value $>$ value (in %)	Set a product specific lower price boundary as share of purchase price after inbound/outbound cost consideration	Value 50%, Inbound/Outbound cost 3, Purchase Cost 12 $\Rightarrow$ Net red price $>$ 9
Optimal Price $\leq$ RRP * value (in %)	Limit optimal price to be smaller or equal RRP	Value = 1, RRP = 49.99 $\Rightarrow$ Optimal Price $\leq$ 49.99
Optimal Price = RRP * value (in %)	Ensure that gross_red_price is equal RRP	Value = 1, RRP = 49.99 $\Rightarrow$ Optimal Price = 49.99

## 6 Frontend Outlook

The images below highlight the many features of our Frontend Tool and what you can do with it to achieve full control over your pricing strategy.

Status	ID	Name	#Products	From/To	#Rules	Steering	Targets	Predicted Revenue	Predicted Profit	Predicted Sales	Profit Margin
✓	884	test	10800	31.01.2023 13.02.2023	2	Max Profit Min Revenue Max	All products	+13.98%	+44.19%	+21.14%	17,3 %
✓	883	test	10800	28.01.2023 09.02.2023	2	Max Profit Min Revenue Max	Electronics All products Total	+7.87% +8.02% +8.02%	+46.98% +46.58% +46.58%	+13.31% +12.78% +12.78%	18,6 % 18,8 % 18,8 %
✓	882	test	10800	27.01.2023 09.02.2023	2	Max Profit Min Revenue Max	Electronics All products Total	+0.01% +0.14% +0.14%	+46.47% +45.68% +45.68%	+0.94% +0.87% +0.87%	20,0 % 20,2 % 20,2 %

Figure 1: Optimizations summary

Keep an overview of your optimizations by quickly looking at the steering strategy and a summary of basic KPIs like profit, revenue and sales (see Figure 1).

Name  
Fashion

Filters

Attribute Operator Values  
= abc Brand = Marc O'Polo

Attribute Operator Values  
= abc Color = purple

OR

SUBMIT

Figure 2: Scope definition

You can easily create scopes containing products with specific attributes that you want to optimize (see Figure 2).

Rule Template Value  
Profit Margin >= 0.6

Scope  
Fashion

SUBMIT

Figure 3: Rule creation

Assign custom rules that you want to apply for the desired group of products (see Figure 3).

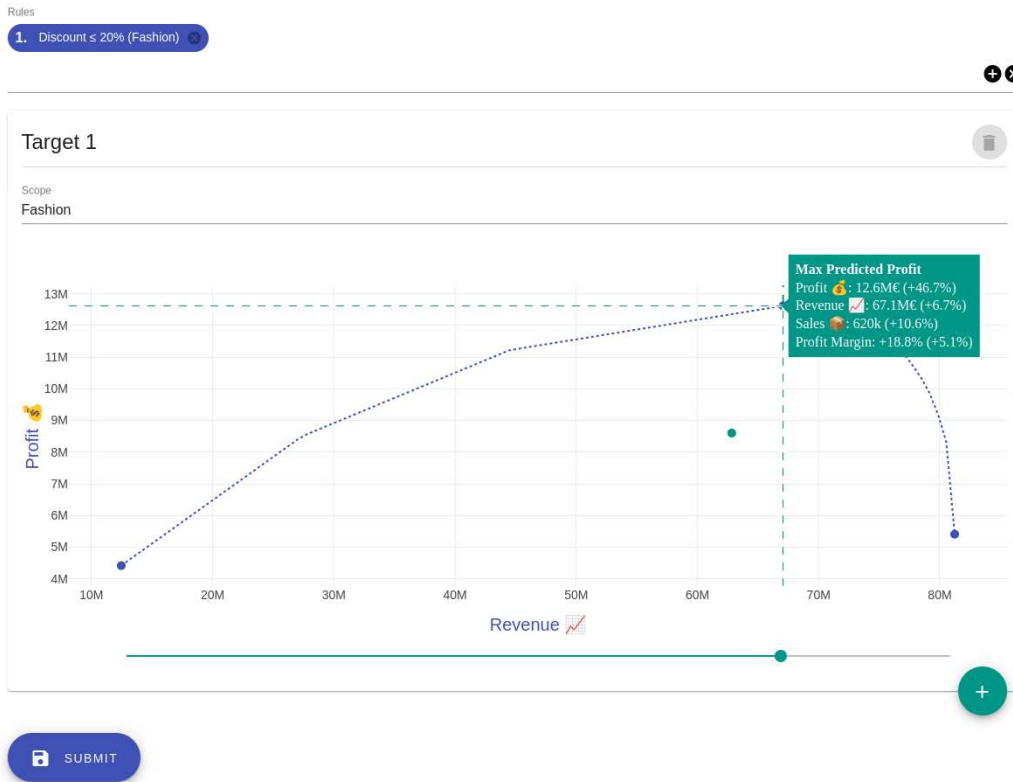


Figure 4: Optimization preview curve

Choose a pricing strategy for the group of products (scope) you want, apply the corresponding rules and create an optimization (see Figure 4).

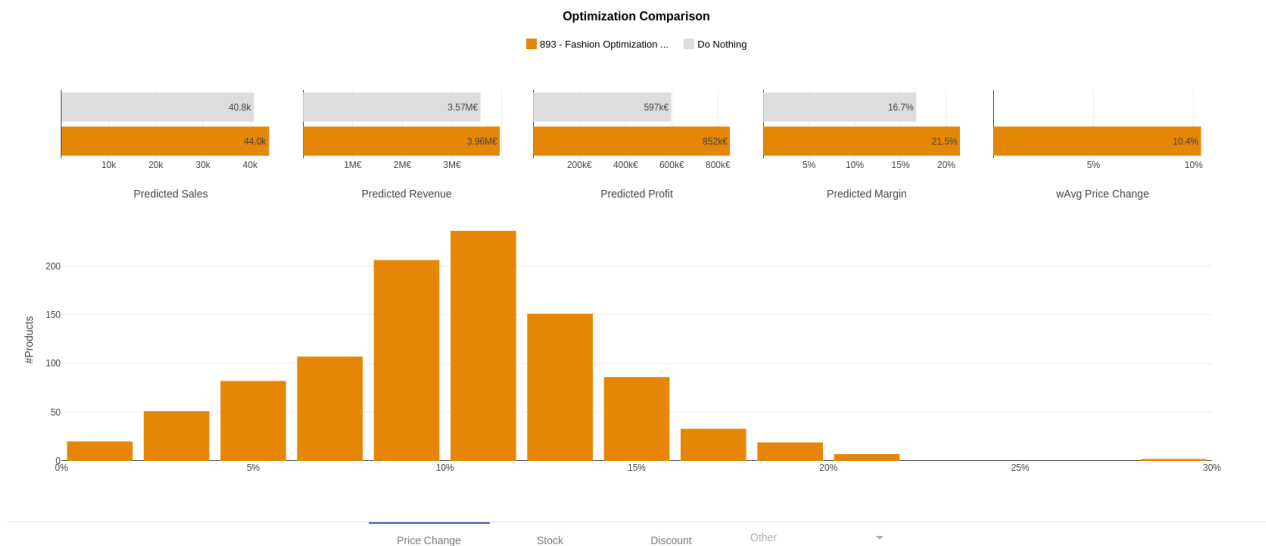


Figure 5: Optimization comparison view

Get a more detailed insight on the overall impact of your strategy by comparing the optimization to a “Do nothing” scenario (see Figure 5).

You can even compare two or more optimizations with each-other and see which pricing strategy is more suitable for your purposes (see Figure 6).

Go into product-level predictions and perform an in-depth inspection by looking at wide range of pricing, inventory or marketing KPIs (see Figure 7).

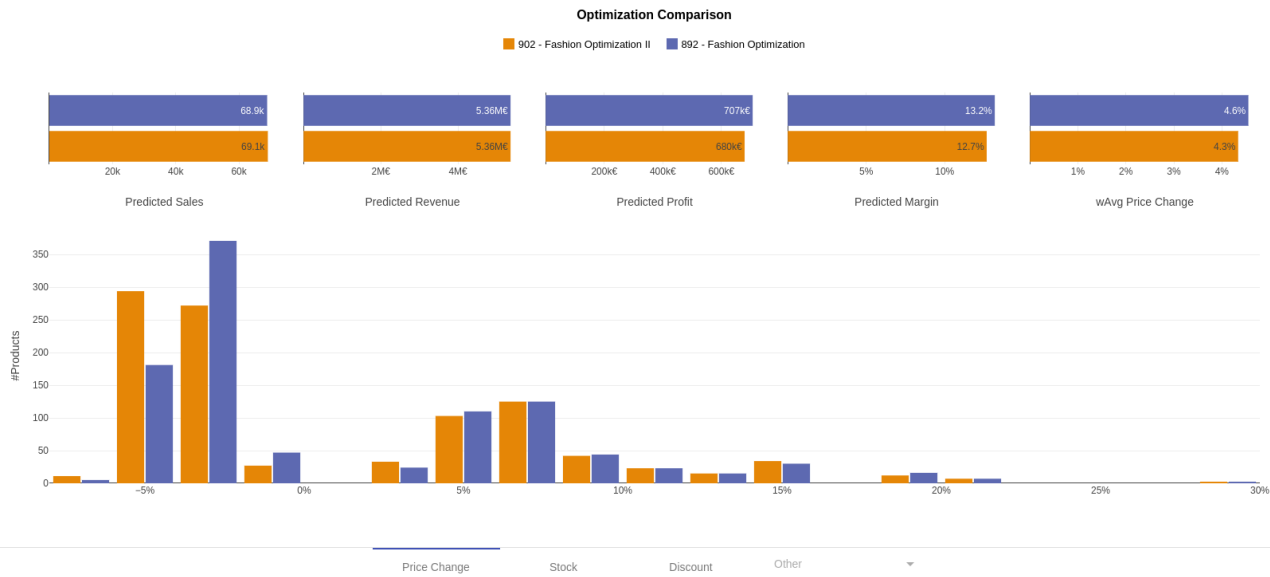


Figure 6: Comparing two optimizations

Search 667 Search values

Optimization ID	Market	Channel	Product ID	Pricing +				Financials +			Inventory +	Marketing +		Custom +
				Price Change ×	Explain ×	Current Price ×	Optimal Price ×	Profit ↓	Revenue ×	Profit Margin ×	Sales Before Returns ×	Current Marketing Option ×	Optimal Marketing Option ×	No columns selected
902	US	myshop.com	667941	7 %	0 Rules	145,00 \$	155,49 \$	2.446,78 €	12.233,16 €	20 %	100.66	Max CpC: 0.5	Max CpC: 0.6	↑ ↓
902	US	myshop.com	667970	7 %	0 Rules	145,00 \$	155,49 \$	2.446,78 €	12.233,16 €	20 %	100.66	Max CpC: 0.5	Max CpC: 0.6	↑ ↓
902	US	myshop.com	667911	5 %	0 Rules	146,00 \$	153,49 \$	2.319,48 €	12.425,96 €	19 %	103.58	Max CpC: 0.5	Max CpC: 0.6	↑ ↓
902	US	myshop.com	667891	5 %	0 Rules	146,00 \$	153,49 \$	2.319,18 €	12.424,76 €	19 %	103.57	Max CpC: 0.5	Max CpC: 0.6	↑ ↓
902	US	myshop.com	667711	5 %	0 Rules	146,00 \$	153,49 \$	2.318,74 €	12.423,00 €	19 %	103.56	Max CpC: 0.5	Max CpC: 0.6	↑ ↓
902	US	myshop.com	667709	5 %	0 Rules	146,00 \$	153,49 \$	2.318,37 €	12.421,56 €	19 %	103.54	Max CpC: 0.5	Max CpC: 0.6	↑ ↓
902	US	myshop.com	667847	5 %	0 Rules	146,00 \$	153,49 \$	2.317,96 €	12.419,93 €	19 %	103.53	Max CpC: 0.5	Max CpC: 0.6	↑ ↓
902	US	myshop.com	667967	13 %	1 Rules	125,00 \$	141,49 \$	2.148,18 €	8.754,54 €	25 %	79.17	Max CpC: 0.4	Max CpC: 0.5	↑ ↓
902	US	myshop.com	667997	13 %	1 Rules	125,00 \$	141,49 \$	2.148,18 €	8.754,54 €	25 %	79.17	Max CpC: 0.4	Max CpC: 0.5	↑ ↓
902	US	myshop.com	667819	13 %	1 Rules	125,00 \$	141,49 \$	2.148,18 €	8.754,54 €	25 %	79.17	Max CpC: 0.4	Max CpC: 0.5	↑ ↓
902	US	myshop.com	667721	7 %	0 Rules	143,00 \$	153,49 \$	1.906,99 €	10.184,01 €	19 %	84.89	Max CpC: 0.4	Max CpC: 0.6	↑ ↓

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Figure 7: Product level prediction summary

Know the reason behind our optimizer's decisions by observing the explain curve and rule applications from the current price to the optimal price (see Figure 8).

Pricing +				Financials +			Inventory +	Marketing +	
Price Change ×	Explain ×	Current Price ×	Optimal Price ×	Profit ↓	Revenue ×	Profit Margin ×	Sales Before Returns ×	Current Marketing Option ×	Optimal Marketing Option ×
13 %	1 Rules	125,00 \$	141,49 \$	2.148,18 €	8.754,54 €	25 %	79.17	Max CpC: 0.4	Max CpC: 0.5
13 %	1 Rules	125,00 \$	141,49 \$	2.148,18 €	8.754,54 €	25 %	79.17	Max CpC: 0.4	Max CpC: 0.5
13 %	1 Rules	125,00 \$	141,49 \$	2.148,18 €	8.754,54 €	25 %	79.17	Max CpC: 0.4	Max CpC: 0.5
7 %	0 Rules	143,00 \$	193,49 \$	1.906,18 €	10.184,00 €	19 %	84.89	Max CpC: 0.4	Max CpC: 0.6
7 %	0 Rules	143,00 \$	193,49 \$	1.906,18 €	10.184,00 €	19 %	84.89	Max CpC: 0.4	Max CpC: 0.6
8 %	1 Rules	131,00 \$	159,49 \$	2.249,00 €	8.894,46 €	21 %	80.43	Max CpC: 0.4	Max CpC: 0.5
8 %	1 Rules	131,00 \$	159,49 \$	2.249,00 €	8.894,46 €	21 %	80.43	Max CpC: 0.4	Max CpC: 0.5
8 %	1 Rules	131,00 \$	159,49 \$	2.249,00 €	8.894,46 €	21 %	80.43	Max CpC: 0.4	Max CpC: 0.5
28 %	1 Rules	125,00 \$	159,49 \$	1.896,54 €	8.698,78 €	22 %	50.67	Max CpC: 0.4	Max CpC: 0.5
9 %	1 Rules	130,00 \$	141,49 \$	1.896,54 €	8.698,78 €	22 %	78.66	Max CpC: 0.4	Max CpC: 0.5

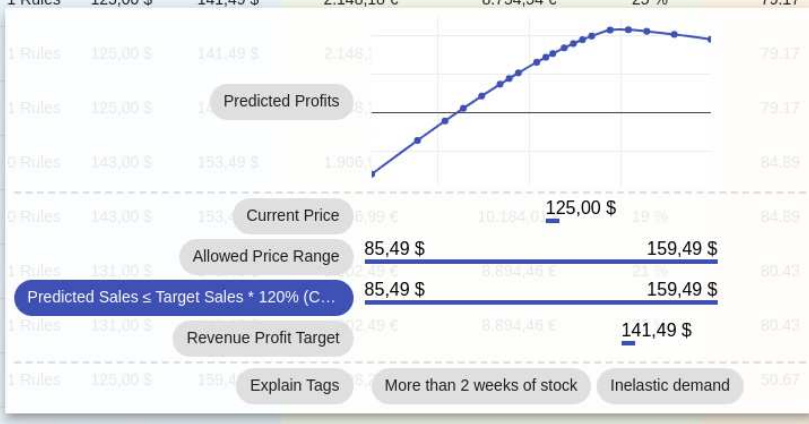


Figure 8: Product level decision explanation