



Accelerate Customer Insights Package

Version 1.7

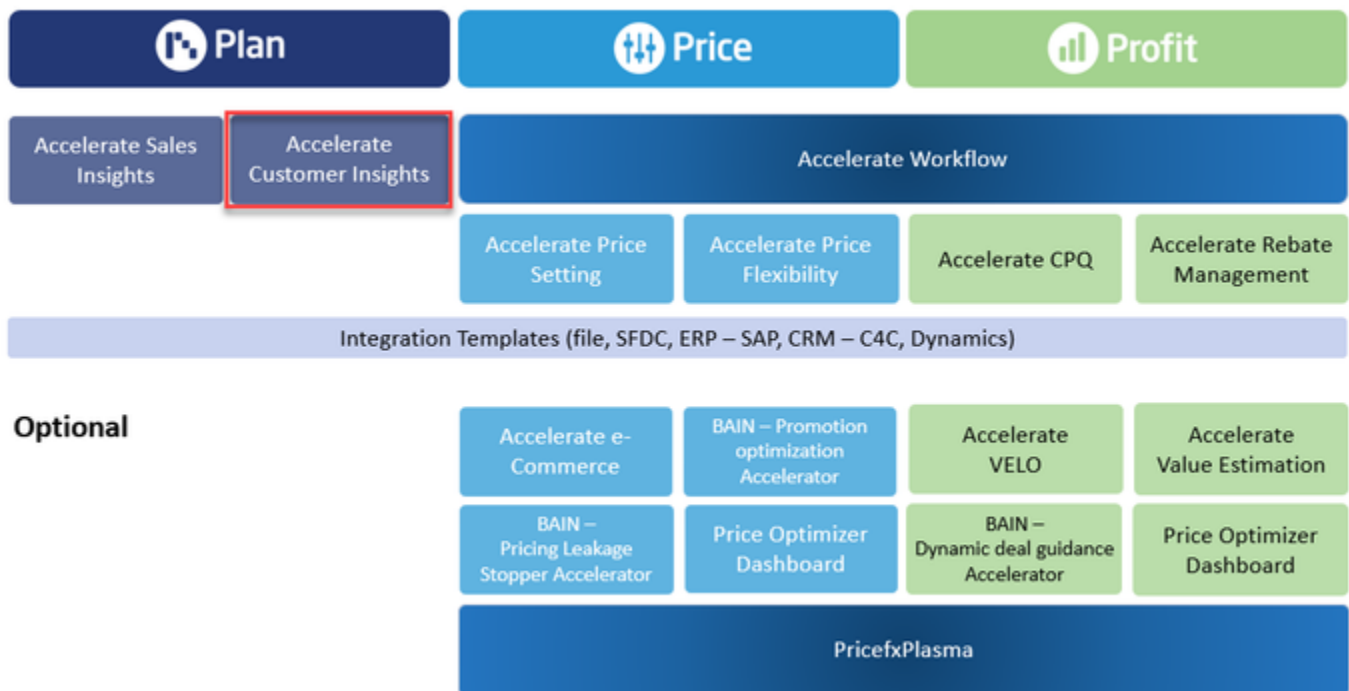
August 2023

Accelerate Customer Insights Package

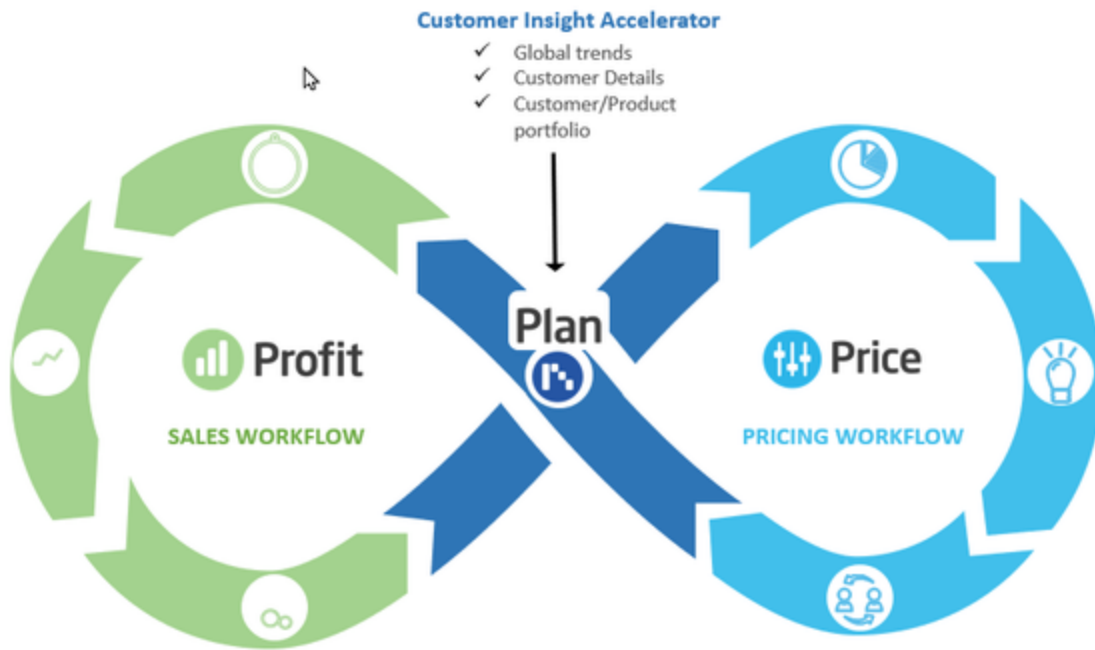
- Overview (Customer Insights)
- Business User Reference (Customer Insights)
- Admin User Reference (Customer Insights)
- Technical User Reference (Customer Insights)
- Glossary (Customer Insights)
- Release Notes (Customer Insights)
- Archive of Documentation (Customer Insights)

Overview (Customer Insights)

The Customer Insights Accelerator is one of many pre-built solutions from Pricefx that provides a customer with a quicker path to the analysis of their pricing data.



Within the design of the Pricefx PLAN/PRICE/PROFIT structure, we can see exactly where the Customer Insights Accelerator will be included:



Business Overview (Customer Insights)

Premise

You are involved with the review of customer and product analytics, and trend analysis as part of a team from either Pricing, Financial, Sales, or IT support within your organization.

Desired Outcome

You need to prevent margin leakages through a set of actionable analytics for sales and pricing enabling identification of customers at risk (with low health scores) and reasons behind. It includes advanced analysis of the performance of all customers, individual customers/customer groups as well product performance for a customer.

Context and Background

After loading the product, customer, and transactional history into Pricefx and creating a Datamart, you are ready to start analyzing sales and pricing information for your customers and products. You need to examine each of them to identify which ones are performing poorly and understand the reasons for this poor performance.

Problem

You recognize that not all customers or products are providing healthy contributions to your gross margin and you need to apply an analytics tool that will correctly identify those that are performing poorly and clarify the root cause.

Solution Capabilities

Once this accelerator has been implemented and linked to your Datamart, then these analytical capabilities will be available:

- Ability to health score for customers and products
- Provide insights on revenue and margin trends
- Identify the top and bottom performing customers or products
- Highlight pricing and sales opportunities

Accelerator Solution (Customer Insights)

Accelerate Customer Insights Package allows management teams to prevent margin leakages through a set of actionable analytics for sales and pricing enabling identification of customers at risk (with low health score) and reasons behind.

It includes advanced analysis of performance of all customers, individual customers / customer groups as well product performance for a customer.

KPIs provided by the analysis:

- Customer and Product health scores
- Revenue, Margin and Volume trends
- Pricing and Sales opportunities

Dashboard Settings

Select Dashboard

Customer Insights - Customer Detail View

DATA FILTER

Customer Stanley Linda CP... Q

* Time Filter YTD

Category

Value

Product Class

Product Health S...

Apply Settings

Customer Insights - Customer Detail View

+ Add Portlet (15)

Export to Excel



Customer Summary

Customer: CID-0001 (Stanley Linda CPA US Global customer CA)

Segment: Global customer-Modesto

Health Score Last 12M: ▲+100

Revenue Trend YTD: ▼+2.36%

Revenue Trend (last 12M): ▶+29.11%

Total Revenue: 2,158,945

Margin Trend YTD: ▼-2.73%

Margin Trend (last 12M): ▶+31.50%

Total Margin: 573,353

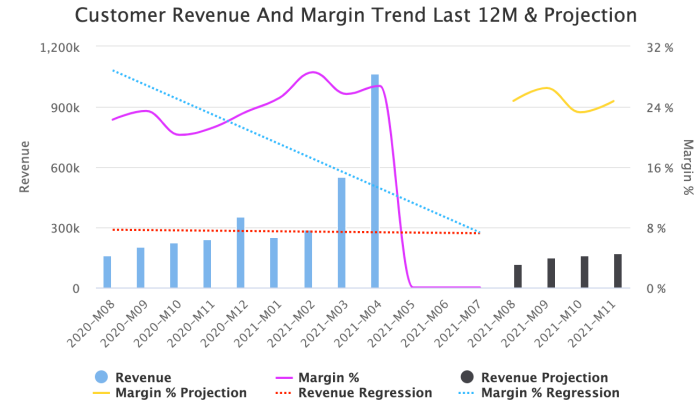
Volume Trend YTD: ▼-8.51%

Volume Trend (last 12M): ▶+25.53%

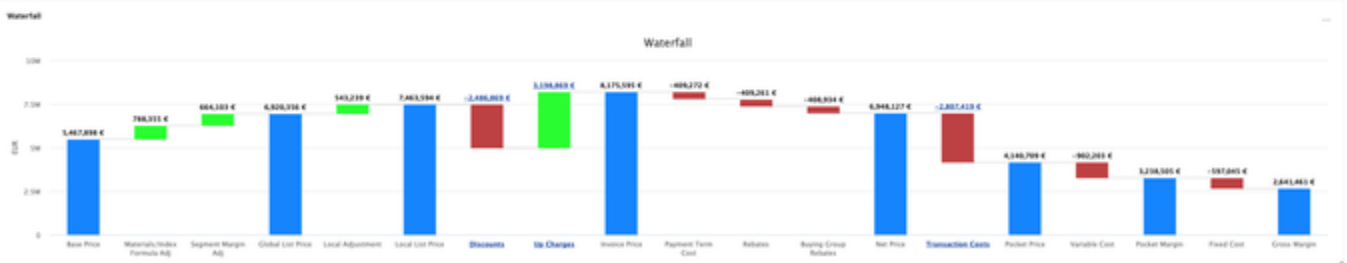
Total Volume: 12,218

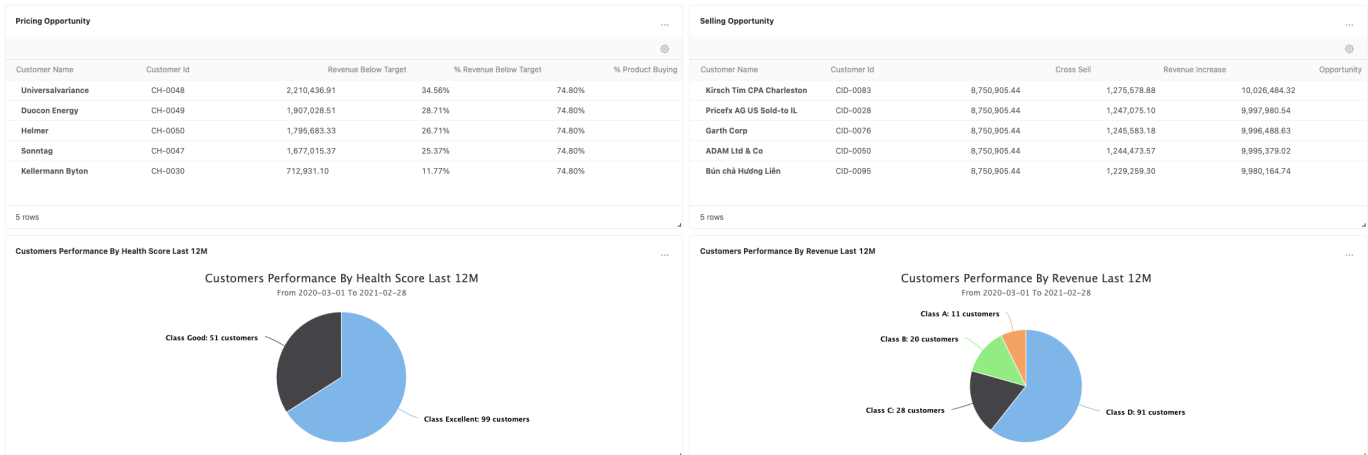
View Customer Products Portfolio

Customer Revenue And Margin Trend Last 12M & Projection



Chart





Value Measurement (Customer Insights)

This accelerator is designed to provide an overview of the trading performance of different customer groups through a series of dashboards. These are the measurements they provide:

- **Global View** - Provides customer performance via health score and revenue, pricing and selling opportunity, and overall customer summary.
- **Detail View** - Provides a detailed customer view on revenue and margin, waterfall chart, high/low volume products, and revenue and margin trends.
- **Customer Products Portfolio** - Provides pricing opportunities by product type or attribute, identifies the top and bottom products.

Each of these different dashboards integrates our KPIs and allows you to measure them across one or more dimensions:

- Health Score
- Date (Yr, Qtr, and Month)
- Customer ID
- Product ID
- Product Class
- Product Group
- Product attribute

KPI Metrics (Customer Insights)

KPI stands for key performance indicator, a quantifiable measure of performance over time for a specific objective. KPIs provide targets for teams to shoot for, milestones to gauge progress, and insights that help people across the organization make better decisions.

KPI vs. Metrics

While key performance indicators and metrics are related, they are not the same. Here is a quick explanation:

- Our definition of KPIs is the **key targets** you should be tracking **to make the biggest impact** on your strategic business outcomes. These KPIs will support your strategy and help your teams focus on what is important. For example, a key performance indicator could be targeted new consumers by month.

- Metrics, on the other hand, will measure the success of **everyday business activities** that **support your identified KPIs**. While they may have an impact on your outcomes, they are not the most critical measurements. Examples could include monthly site visits or number of modules installed.

Customer Insights KPI

As the name implies, the goal here is to examine customers and that is performed on three different levels: global view, detailed customer view, and customer/product portfolio. The key KPIs being analyzed are:

- Revenue
- Margin
- Volume
- Health Score

Capabilities Summary (Customer Insights)

Out of the Box

- **Global View** dashboard, with charts and table reports:
 - Customers Performance by Health Score
 - Customers Performance by Revenue
 - Customer Health Summary
 - Trends
 - Pricing Opportunity
 - Selling Opportunity
 - Customer Summary
 - Inactive Customers
- **Customer Detail View** dashboard, with charts and table reports:
 - Specialty and Commodity Products
 - High Volume and Low Volume Products
 - Revenue and Margin chart
 - Waterfall chart
 - Revenue Breakdown chart
 - Number of Transactions in Last 12M & Projection
 - Customer Revenue and Margin Trend in Last 12M & Projection
 - Customer Summary
- **Customer Products Portfolio** dashboard, with charts and table reports:
 - Pricing Opportunity by Product Type
 - Pricing Opportunity by Product Attribute
 - Revenue and Margin Contribution
 - Pricing Opportunity by Top Products
 - Pricing Opportunity by Worst Products
 - Product Health Summary
 - Average Invoice Price
 - Trends
 - Pricing Opportunity
 - Selling Opportunity
 - Customer Summary

Configurable

- **Customer Segmentation definition** - You can define grouping of customers by common characteristics /dimensions. Then selected KPIs of individual customers are calculated according to the values aggregated on the Customer Segment level.
- **Source of data** - Defines from which source (Datamart / Data Source) your transactional data comes from and which fields should be used for calculations.
- **Parameters**, which drive:
 - Calculations of KPIs - You can set class values and thresholds for various product and customer classifications.
 - Displaying of certain things - You can change lists of options for filters, and default presets for dashboard filters.
- **Waterfall chart configuration** (it uses the configuration defined for the Sales Insights accelerator installed on the same partition)

Business User Reference (Customer Insights)

Customer Insights Dashboards consist of three separate dashboards which provide overview of trading performance of a customer group. They also support analysis of an individual customer's performance.

- [Global View Dashboard \(Customer Insights\)](#)
- [Customer Detail View Dashboard \(Customer Insights\)](#)
- [Customer Products Portfolio Dashboard \(Customer Insights\)](#)
- [Common Aspects of Dashboards \(Customer Insights\)](#)

Global View Dashboard (Customer Insights)

Global View dashboard provides customer performance via health score and revenue, pricing and selling opportunity, and overall customer summary.

Portlets

- [Customer Summary](#)
- [Customers Performance by Health Score Last 12M](#)
- [Customers Performance by Revenue Last 12M](#)
- [Customer Health Summary](#)
- [Trends](#)
- [Pricing Opportunity](#)
- [Selling Opportunity](#)
- [Inactive Customers](#)

All of the tables/charts are based on Data Source *Customer Insights Aggregated Data* if not stated otherwise.

Customer Summary

Displays some typical figures regarding a chosen customer or a group of customers.

- Customer displays a list of [Customer ID,(Customer Name)] following a filter group. When no customer is selected, it is left empty.

- Health Score Last 12M is re-calculated by the Trend L12M of the group.
- Pricing Opportunity = Σ Revenue below target
- Selling Opportunity = Σ Up Sell + Σ Cross Sell
- L12M trends are calculated on the monthly basis.
- Note: Data are queried from Datamart.

Customer Summary

Customers: CD-00003 (M. Müller), CD-00004 (Price Fix) AG, CD-00012 (Sougo DE), CD-00014 (Kraffmeat), CD-00018 (Sougo CH), CD-00019 (Francomeat), CD-00020 (US Steak), CD-00022 (Softmeat), CD-00024 (Xing-Wag), ...

Health Score Last 12M: Δ +\$5

Revenue Trend YTD: Δ -100.00%	Total Revenue: 140,297,611	Pricing Opportunity: 10,896,565
Margin Trend YTD: Δ -100.00%	Total Margin: 7,839,809	Selling Opportunity: 7,970,628
Volume Trend YTD: Δ -100.00%	Total Volume: 5,655,048	Opportunity: 18,867,193

Customers Performance by Health Score Last 12M

Shows relative sizes of customer classification based on Health Score in the last 12 months.



Customers Performance by Revenue Last 12M

Shows relative sizes of customer classification based on Revenue in the last 12 months.



Customer Health Summary

Shows Customer's Health calculated based on the difference between two periods. For example, Current YTD and Previous YTD.

It shows correlation between Health Score and revenue, gross margin, volume.

Customer Health Summary

Customer Name	Customer ID	Health Score	Total Revenue	Total Margin	Total Volume	Margin %	No. of Transactions per Day
Wacker Stein	CD-00140	Δ +100	16,393	6,939	3,887	54.29%	5
Appertite Me	CD-00001	Δ +100	470,469	246,128	162,940	52.76%	107
Zumbachstein	CD-00147	Δ +100	16,417	9,769	3,872	59.54%	5
WISSI Fish	CD-00146	Δ +100	13,084	6,076	3,175	53.34%	5
Clavilla Pasta	CD-00145	Δ +100	11,840	6,280	4,408	53.10%	5
Bullhousen	CD-00020	Δ 0	161,261	42,960	54,700	26.63%	5
Berone	CD-00027	Δ 0	160,932	42,704	53,360	26.54%	5
Dirken Dropper	CD-00024	Δ 0	160,704	41,330	53,038	25.72%	5
Jemel	CD-00026	Δ 0	160,539	41,404	54,396	25.80%	5
Coval Ball	CD-00046	Δ 0	160,198	42,360	53,615	26.45%	5

Note: Green/red color in the Customer column does not correspond to the Health score. See how it is [defined](#).

Trends

For details on trends see [Common Aspects of Dashboards \(Customer Insights\)](#).

Customer Name	Customer ID	Revenue Trend Last 12M	Margin Trend Last 12M	Volume Trend Last 12M	Revenue Trend
▲ Wacker Stein	CD-00142	▼ -22.89%	▼ -4.12%	▼ -20.79%	▲ +
▲ Appetito Mz	CD-00001	▲ +172.10%	▲ +171.61%	▲ +165.92%	▲ +
▲ Zumtobtschwein KG	CD-00147	▼ -23.23%	▼ -5.14%	▼ -20.29%	▲ +
▲ WIGO Fish	CD-00144	▼ -23.77%	▼ -6.90%	▼ -23.33%	▲ +
▲ Claudio Florio	CD-00143	▼ -32.24%	▼ -21.19%	▼ -29.38%	▲ +
▼ BioMérieux	CD-00038	▲ +97.11%	▲ +72.30%	▲ +99.20%	▼ -
▼ Beraxo	CD-00037	▲ +76.15%	▷ +55.79%	▲ +74.42%	▼ -
▼ Dirkan Gruppe	CD-00054	▲ +113.64%	▲ +78.84%	▲ +107.72%	▼ -
▼ Junol	CD-00056	▲ +81.41%	▷ +57.83%	▲ +81.18%	▼ -
▼ Covid Ball	CD-00046	▲ +82.80%	▷ +58.59%	▲ +77.48%	▼ -

Pricing Opportunity

Shows a list of customers who can be targeted to sell more products and more sales volume. The top of the list represents the highest opportunity, these customers are under the average point in the customers set. The bottom of the list represents the lowest opportunity. (hidden)

Customer Name	Customer ID	Revenue Below Target	% Revenue Below Target	% Product Buying
New York Meat	CD-00008	27,754	4.90%	100.00%
Price Fixi AG	CD-00004	22,643	5.59%	100.00%
E. Fuller	CD-00009	22,295	4.00%	100.00%
Grays Ho	CD-00010	22,187	5.34%	100.00%
M. Müller	CD-00003	21,185	3.60%	100.00%

- **Revenue below target** (Evaluate purchased products)
 - If the value > 0, customers have reached the revenue *under* the average point among the customers set, it indicates the value that customer should obtain to reach the average base.
 - If the value = 0, customers have reached the revenue *above* the average point among the customers set, they are good customers.
- **% Product Buying** - Shows how many products (in %) the customer purchased in the given period.
 - If the value = 100%, the customer purchased full products set presented in the given period. It correlates with Cross Sell Opportunity = 0.
 - If the value < 100%, the customer did not purchase the full products set presented in the given period. It means this customer must have Cross Sell Opportunity > 0.

Selling Opportunity

Shows the total value which can be gained for products that the customer already bought and not bought in the given period.

- **Cross Sell** (Evaluate non-purchased products)
 - The value that the customer should spend by purchasing a product which they did not buy in the past, but other customers bought it.
 - If the value = 0, the customer bought full products set presented in the given period.
- **Up Sell** (Evaluate purchased products)

- The value that the customer should spend more by purchasing a product which they already bought in the past.
- If the value = 0, the customer purchased products that all are above average point in the customers set.
- **Opportunity** - This is the total additional value that can be obtained for the customer, evaluate for both purchased and non purchased products.

Customer Name	Customer Id	Cross Sell	Up Sell	Opportunity
Linda HealthBall	CD-00085	20,811	373,249	394,060
Zumtobach KG	CD-00147	101,990	199,422	301,412
Schweizer Group	CD-00117	83,194	147,951	231,145
Texas Meat	CD-00133	76,681	130,842	207,523
Stomach	CD-00129	74,389	129,183	203,582

Inactive Customers

This portlet shows a list of “inactive” customers so that you can identify customers which are marked as active and for which there are no transactions in the chosen **time period**.

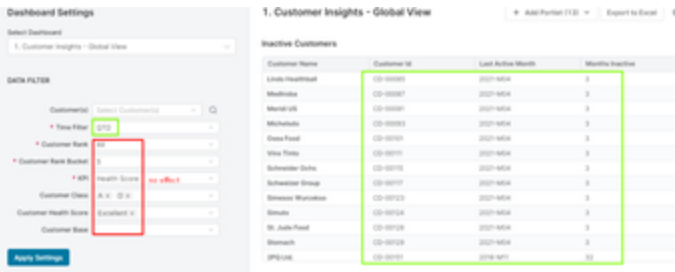
Config Inactive-Customer-classification

Customer Name	Customer Id	Last Active Month	Months Inactive
Proquato	CD-00148	No data	No data
APPO AG	CD-0001	No data	No data
Zumtobach KG	CD-00147	2020-M03	21
WAGO Flak	CD-00144	2020-M06	18
Walter Wurst	CD-00145	2020-M06	18
MX Meat Inc.	CD-00146	2020-M06	18
Claudio Pesto	CD-00143	2020-M06	18

17 rows

- Applied filters: Customer(s), Time filter
- Not applied filters: Customer Rank, Customer Rank Bucket, KPI, Customer Class, Customer Health Score
- Months Inactive = Current Month - Last Active Month

Conditions	Results
If PP define + No filter customer	Get list customers PP defined that have no transaction in period
If PP define + Filter customer	Get list customers PP defined that have no transaction in period
If PP not define + No filter customer	Get list all customers in master have no transaction in period
If PP not define + Filter customer	Get list all customers in master have no transaction in period



User Inputs

DATA FILTER

Customer(s)
Select Customer(s)

Time Filter *
YTD

Customer Rank *
All

Customer Rank Bucket *
5

KPI *
Health Score

Customer Class

Customer Health Score

Customer Base

To set up the dashboard, use these options:

- **Customer(s)**
- **Time Filter** - Possible values: MTD, QTD, YTD, L12M, L6M, L3M
 - For time filters with Last Period (L3M, L6M, L12M, ...):
 - [Start date] = First month beginning date
 - [End date] = Previous month end date
E.g.: Today is 2021-08-06 => L3M: From 2021-05-01 to 2021-07-31
 - For time filters with up To Date (YTD, QTD, MTD, ...):
 - [Start date] = Period Beginning Date
 - [End date] = Current date
E.g.: Today is 2021-08-06 => QTD: From 2021-07-01 to 2021-08-06
- **Customer Rank** - Possible values: All, Top, Worst
- **Customer Rank Bucket** - Possible values: 5,10, 50, 100

Counted items shown in the top or bottom of the list are based on the Rank Bucket input.

If the whole list has 12 customers and Customer Rank Bucket =10, then the top part of the list shows 10 customers and the bottom part shows 2 customers.

i Customers column typically shows the top/worst aggregation of data which is driven by inputs on the left-hand side of the dashboard. Columns with Trends usually show increase/constant/decrease metrics based on the Data Load calculation results. There is no direct relation between these two types of metrics and columns.

- **KPI** - Possible values: Revenue, Margin %, Volume, Health Score

- **Customer Class** - Based on cumulative contribution to the total revenue in the last 12 months, the customer is assigned into a category (the thresholds are configurable).
 - A <= 20%
 - B <= 50%
 - C <= 95%
 - D = rest
- **Customer Health Score** - Possible values: Excellent, Normal, Low, Problematic (multiselect is enabled). For details see [Common Aspects of Dashboards \(Customer Insights\)](#).
- **Customer Base** - Based on cumulative revenue contribution and the threshold defined, Customers are classified as either Core or Long Tailed. For detailed formula explanation see [Glossary \(Customer Insights\)](#).
 - Core <=80%
 - Long Tailed > 80%

Filter Rules

Does not apply

Portlets		User Inputs						
		Customer(s)	Time Filter	Customer Rank + Customer Rank Bucket	KPI	Customer Class	Customer Health Score	Customer Base
Summary	Customer Summary	X	X			X	X	X
Pie Chart	Customers Performance by Health Score Last 12M	X	X			X	X	X
	Customers Performance by Revenue Last 12M	X	X			X	X	X
Table	Customer Health Summary	X	X	X	X	X	X	X
	Trends	X	X	X (*)	X	X	X	X
	Pricing Opportunity	X	X	X (Ranked by Revenue Below Target descending)		X	X	X
	Selling Opportunity	X	X	X (Ranked by Opportunity descending)		X	X	X
	Inactive Customers							

(*): Only sorts out Customers/Products that have traded in the period, does not affect calculation results.

Customer Detail View Dashboard (Customer Insights)

Customer Detail View dashboard provides a detailed customer view on revenue and margin, waterfall chart, high/low volume products, and revenue and margin trends.

Portlets

- Customer Summary
- Specialty and Commodity Products
- High Volume and Low Volume Products
- Revenue and Margin Chart
- Waterfall Chart
- Revenue Breakdown Chart
- Number of Transactions in Last 12M & Projection
- Customer Revenue and Margin Trend in Last 12M & Projection

Customer Summary

Displays some typical figures regarding the chosen customer.

- All values are aggregated on the Customer(s) and Category levels.
- If a Category value is not selected, it will be hidden in the portlet.
- On click "View Customer Products Portfolio" to open new tab "Customer Products Portfolio" dashboard.
- L12M trends are calculated on monthly basis.
- This chart is based on Datamart.



Specialty and Commodity Products

Shows relative sizes of product classification based on the margin %.

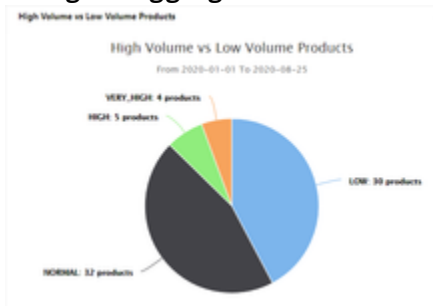
- **Specialty products** - Higher than the defined margin %
- **Commodity products** - Lower than the defined margin %

The chart is based on Data Source *Customer Insights Aggregated Data*.



High Volume and Low Volume Products

Shows relative sizes of product classification based on volume. The chart is based on Data Source *Customer Insights Aggregated Data*.



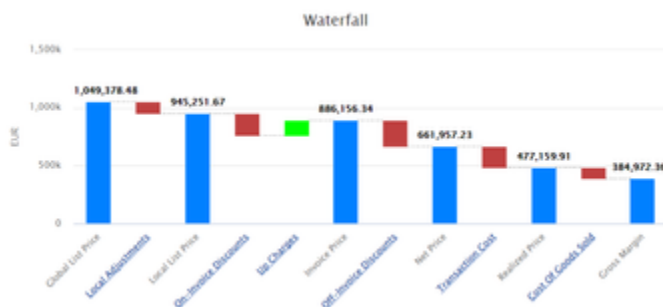
Revenue and Margin Chart

Shows Revenue and Margin values over several months in the given period. The chart is based on Data Source *Customer Insights Aggregated Data*.



Waterfall Chart

Shows a running total profit as values are added or subtracted. This chart is based on Datamart. For more details see [Waterfall Dashboard](#).



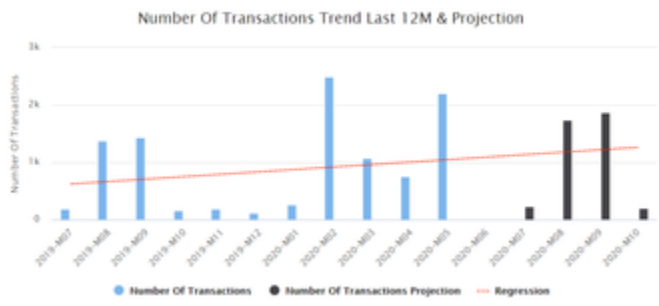
Revenue Breakdown Chart

Shows what the difference in revenue between two periods can be attributed to. It allows you to compare two years or quarters and optionally filter for only certain products and/or customers. The chart is based on Data Source *Customer Insights Aggregated Data*. For more details see [Revenue Breakdown Dashboard - Fields Definition](#).



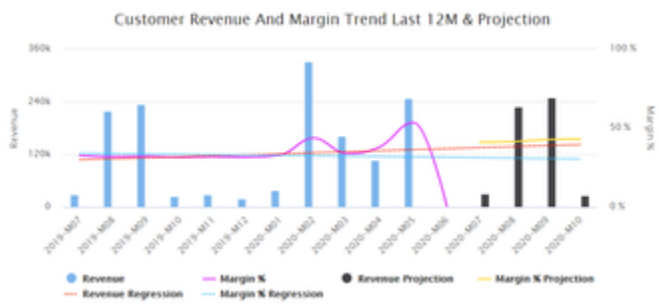
Number of Transactions in Last 12M & Projection

Bar & line chart shows the number of transactions for the last 12 months and estimation for the next 3 months. The current month is considered as a future month (as it has not ended yet). This chart is based on Datamart.



Customer Revenue and Margin Trend in Last 12M & Projection

Bar & line chart shows Revenue and Margin for the last 12 months and estimation for the next 3 months. The current month is considered as a future month (as it has not ended yet). This chart is based on Datamart.



User Inputs

To set up the dashboard, use these options:

- **Customer**
- **Time Filter** - Possible values: MTD, QTD, YTD, L12M, L6M, L3M
 - For time filters with Last Period (L3M, L6M, L12M, ...):
 - [Start date] = First month beginning date
 - [End date] = Previous month end date
E.g.: Today is 2021-08-06 => L3M: From 2021-05-01 to 2021-07-31
 - For time filters with up To Date (YTD, QTD, MTD, ...)

DATA FILTER

Customer*
 Q

Time Filter*

Category

Value

Product Class

Product Health Score

Product Base

- [Start date] = Period Beginning Date
- [End date] = Current date
 E.g.: Today is 2021-08-06 => QTD: From 2021-07-01 to 2021-08-06
- **Category (+ Value)** - E.g.: Product ID, Product Group
- **Product Class** - Based on cumulative contribution to the total volume in the last 12 months, the product is assigned into a category (the thresholds are configurable).
 - Very High Volume <= 10%
 - High Volume <= 20%
 - Normal Volume <= 75%
 - Low Volume = rest
- **Product Health Score** - Possible values: Excellent, Normal, Low, Problematic (multiselect enabled). For details see [Common Aspects of Dashboards \(Customer Insights\)](#).
- **Product Base** - Based on cumulative revenue contribution and the threshold defined, Products are classified as either Core or Long Tailed. For detailed formula explanation see [Glossary \(Customer Insights\)](#).
 - Core <=80%
 - Long Tailed > 80%

Filter Rules

Does not apply

	Portlets	User Inputs					
		Customer	Time Filter	Category + Value	Product Class	Product Health Score	Product Base
Summary	Customer Summary	X	X	X	X	X	X
Pie Chart	Specialty and Commodity Products	X	X	X	X	X	X
	High Volume and Low Volume Products	X	X	X	X	X	X
Bar Chart	Revenue and Margin chart	X	X	X	X	X	X
	Waterfall chart	X	X	X	X	X	X
	Revenue Breakdown chart	X	X	X	X	X	X
	Number of Transactions in Last 12M & Projection	X		X	X	X	X
	Customer Revenue and	X		X	X	X	X

Margin Trend in Last 12M & Projection						
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Classification

Commodity vs. Specialty Product

Based on average margin achieved by the product during the last 12 months (the thresholds are configurable). For detailed formula explanation see [Glossary \(Customer Insights\)](#).

- Commodity $\leq 40\%$
- Specialty $> 40\%$

Customer Products Portfolio Dashboard (Customer Insights)

Customer Products Portfolio dashboard provides pricing opportunities by product type or attribute, identifies the top and bottom products.

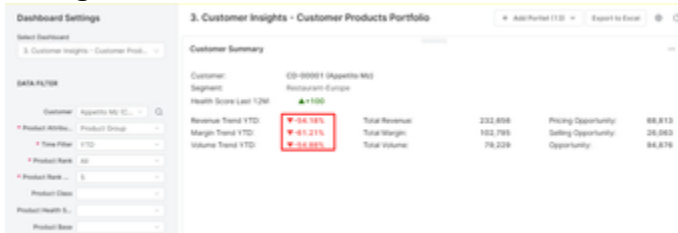
Portlets

- [Customer Summary](#)
- [Pricing Opportunity by Product Type](#)
- [Pricing Opportunity by Product Attribute](#)
- [Revenue and Margin Contribution](#)
- [Pricing Opportunity by Top Products](#)
- [Pricing Opportunity by Worst Products](#)
- [Product Health Summary](#)
- [Average Invoice Price](#)
- [Trends](#)
- [Pricing Opportunity](#)
- [Selling Opportunity](#)

All of the tables/charts are based on Data Source *Customer Insights Aggregated Data*.

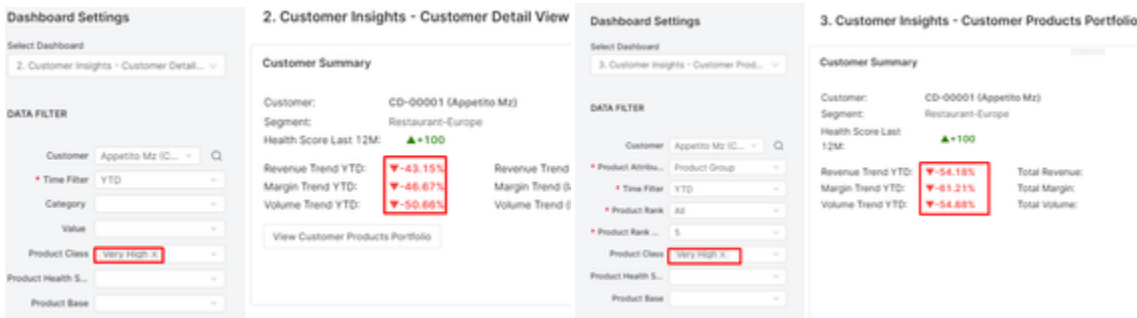
Customer Summary

Displays some typical figures regarding the chosen customer, showing segment that the customer belongs to.



- L12M trends are calculated on monthly basis.
- **Note** in this portlet:
 - Data queried from **DS [Customer Insights Aggregated Data]**: Trend YTD value here is the “customer YTD [revenue/margin/quantity] trend ” calculated in DS [Customer Insights Aggregated Data].
 - In [Customer Detail View dashboard](#), data queried from **Datamart**: Trend YTD value will be recalculated dynamically if the product filter is selected.

- Meanwhile in Customer Products Portfolio dashboard: The trend YTD value will not change regardless of any product filter due to the complex calculation in this dashboard. This might be improved in the future, like in the Customer Detail View dashboard.



Pricing Opportunity by Product Type

Shows relative sizes of product classification based on the margin %.

- **Specialty Products** - Higher than the defined margin %
- **Commodity Products** - Lower than the defined margin %



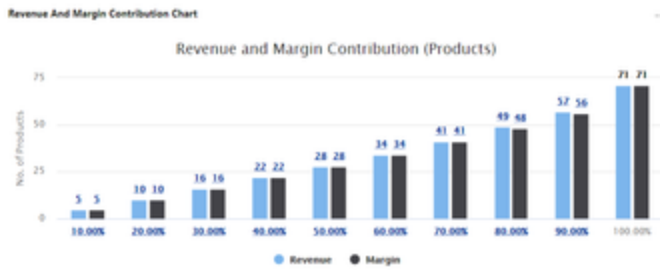
Pricing Opportunity by Product Attribute

Sums revenue below target by the input value in the product attribute filter. The chart label reflects the input value in the product attribute filter.



Revenue and Margin Contribution

Shows revenue and margin split into ten buckets to visualize the number of products needed to cover each bucket (cumulative contribution).



Pricing Opportunity by Top Products

Shows products (bars) by revenue below target descending and cumulative revenue below target (line). They are grouped by product ID.



Pricing Opportunity by Worst Products

This portlet is hidden.

Product Health Summary

Shows revenue and margin for top/worst products.

Product Health Summary

Product Name	Product ID	Total Revenue	Total Margin	Total Volume	Margin %	Health Score
NyChem 90	NC-0090	2,880	934	982	32.42%	▲ +100
NyChem 100	NC-0100	2,690	853	905	31.70%	▲ +100
Mustard hot	MB-0047	10,691	4,996	3,631	46.72%	▷ +50
Sausage BS	MB-0028	15,657	6,920	5,206	44.20%	▷ +50
Meatball BS...	MB-0048	9,660	4,243	3,330	43.92%	▷ +50
Sparkling ...	BV-0007	12,236	5,792	4,277	47.32%	▼ 0
Tomato mild	MB-0042	8,905	4,470	3,272	45.13%	▼ 0
Multivitamin...	BV-0010	10,397	4,872	3,560	46.86%	▼ 0
MailTel	BV-0004	12,380	5,782	4,470	46.70%	▼ 0
Orange Juice	BV-0008	11,880	5,685	4,018	47.82%	▼ 0

Note: Green/red color in the Product column does not correspond to the Health score. See how it is [defined](#).

Average Invoice Price

Shows average unit price per product ID and customer classification by revenue.

- **Customer Revenue Class A/B/C/D** - Average invoice price per product and customer classification.
- **Overall** - Average invoice price per product and all customers

- **Customer** - Average invoice price per product and customer.

Average invoice price calculated based on data in the last 12 months. Time filter has no effect in this table.

Average Invoice Price Table

Product Name	Product ID	Customer Revenue Class A	Customer Revenue Class B	Customer Revenue Class C	Customer Revenue Class D	Overall	Customer
▲ Bottle	MB-0000	3.07	3.08	3.07	3.10	3.10	3.11
▲ Config...	MB-0002	3.00	3.00	3.00	3.00	3.00	3.00
▲ Meal S	MB-0003	3.07	3.02	3.04	3.07	3.05	3.05
▲ Meal M	MB-0002	3.09	3.00	3.06	3.10	3.06	3.10
▲ Meal W	MB-0003	3.06	3.05	3.05	3.06	3.06	3.06
▼ Meal W...	BI-0009	2.94	2.97	2.94	2.93	2.94	2.95
▼ Meal...	BI-0010	2.96	2.89	2.95	2.88	2.90	2.87
▼ Spiced...	BI-0007	2.97	3.00	2.94	2.99	2.99	2.91
▼ Mugle	BI-0005	2.91	2.90	2.94	2.94	2.93	3.00
▼ Meal...	MB-0001	2.89	2.94	2.91	2.89	2.90	2.74

Trends

Show trend values for top/worst products (ranked by Health Score). For details see [Common Aspects of Dashboards \(Customer Insights\)](#).

Trends

Product Name	Product ID	Revenue Trend...	Margin Trend Last 12M	Volume Trend Last 12M	Revenue Trend YTD	Margin Trend YTD	Volume Trend YTD
▲ TopChe...	NC-0000	▲ +143.33%	▲ +103.12%	▲ +166.33%	▲ +206.07%	▲ +244.05%	▲ +160.13%
▲ TopChe...	NC-0100	▼ -12.40%	▼ -10.12%	▼ -12.40%	▼ -250.52%	▼ -234.92%	▼ -205.20%
▲ Muster...	MB-0047	▲ +222.07%	▲ +204.89%	▲ +260.03%	▲ +167.89%	▲ +201.02%	▲ +228.67%
▲ Sausage...	MB-0023	▲ +49.03%	▲ +71.89%	▲ +24.04%	▲ +122.02%	▲ +201.02%	▲ +124.30%
▲ Meal...	MB-0048	▲ +127.88%	▲ +204.94%	▲ +191.00%	▲ +166.09%	▲ +243.94%	▲ +164.88%
▼ Spiced...	BI-0007	▼ -0.30%	▼ -14.02%	▼ -0.30%	▼ -58.09%	▼ -22.06%	▼ -102.22%
▼ Meal...	MB-0042	▲ +140.30%	▲ +237.41%	▲ +151.40%	▲ +126.30%	▲ +218.02%	▲ +157.41%
▼ Meal...	BI-0010	▲ +216.10%	▲ +204.10%	▲ +229.88%	▼ -60.26%	▼ -22.01%	▼ -40.10%
▼ Meal...	BI-0004	▼ -12.00%	▼ -21.79%	▼ -12.00%	▼ -41.19%	▼ -27.89%	▼ -20.67%
▼ Orange...	BI-0008	▲ +104.80%	▲ +106.91%	▲ +177.02%	▼ -41.00%	▼ -27.66%	▼ -40.00%

Pricing Opportunity

Shows revenue below target value and % revenue below target. They are grouped by the input value in the product attribute filter.

Customer Insights Customer Products Portfolio

DATA FILTER

Customer: CD-00001

Product Attribute: **Product Group**

Time Filter: LSM

Top/Worst Products: 5

Product Class:

Product Health Score:

Pricing Opportunity

Product Group	Revenue Below Target	% Revenue Below Target
Mealball	1,809.64	7.56%
Sausage	524.96	7.58%
Alcoholic	461.26	9.02%
Non-Alco...	434.52	13.14%
Teppings	183.01	6.89%

5 rows

Selling Opportunity

Shows the total value which can be gained for products that the customer already bought and not bought in the given period. They are grouped by the input value in the product attribute filter.

Customer Insights Customer Products Portfolio

DATA FILTER

Customer: CD-00001

Product Attribute: **Product Group**

Time Filter: LSM

Top/Worst Products: 5

Product Class:

Product Health Score:

Selling Opportunity

Product Group	Cross Sell	Revenue Increase	Opportunity
Meats	2,574.38	0.00	2,574.38
Sausage	274.36	0.00	274.36
Mealball	0.00	0.00	0.00
Alcoholic	0.00	0.00	0.00
Non-Alcoholic	0.00	0.00	0.00

- [Customer Summary](#)
- [Pricing Opportunity by Product Type](#)
- [Pricing Opportunity by Product Attribute](#)
- [Revenue and Margin Contribution](#)

- Pricing Opportunity by Top Products
- Pricing Opportunity by Worst Products
- Product Health Summary
- Average Invoice Price
- Trends
- Pricing Opportunity
- Selling Opportunity

User Inputs

DATA FILTER

Customer *
 Q

Product Attribute *

Time Filter *

Product Rank *

Product Rank Bucket *

Product Class

Product Health Score

Product Base

To set up the dashboard, use these options:

- **Customer**
- **Product Attribute** - Relevant product related dimensions, by default it is Product Group.
- **Time Filter** - Possible values: MTD, QTD, YTD, L12M, L6M, L3M
 - For time filters with Last Period (L3M, L6M, L12M, ...):
 - [Start date] = First month beginning date
 - [End date] = Previous month end date
 E.g.: Today is 2021-08-06 => L3M: From 2021-05-01 to 2021-07-31
 - For time filters with up To Date (YTD, QTD, MTD, ...)
 - [Start date] = Period Beginning Date
 - [End date] = Current date
 E.g.: Today is 2021-08-06 => QTD: From 2021-07-01 to 2021-08-06
- **Product Rank** - Possible values: All, Top, Worst
- **Product Rank Bucket** - Possible values: 5, 10, 50, 100

Counted items shown in the top or bottom of the list are based on the Rank Bucket input.

If the whole list has 12 products and Product Rank Bucket =10, then the top part of the list shows 10 products and the bottom part shows 2 products.

Dashboard Settings

Select Dashboard

DATA FILTER

Customer(s) Q

* Time Filter

* Customer Rank Buc...

* KPI

Customer Class

Customer Health Score

[Apply Settings](#)

Customer Insights - Global View + Add Portlet (13) Export to Excel

Customer Health Summary


Customer Name	Customer Id	Health Score Last 12M	Total Revenue	Total Margin
▲ Appetito Mz	CD-00001	▲ +100	189,261	81,902
▲ BioMérieux	CD-00038	▲ +100	357,829	235,685
▲ CD GmbH	CD-00042	▲ +100	354,843	238,231
▲ Döhner Bar	CD-00053	▲ +100	113,439	45,399
▲ Fischer Fleisch	CD-00061	▲ +100	31,490	19,899
▲ Spagetti M	CD-00002	▲ +80	464,840	288,911
▲ Pastapasta	CD-00017	▲ +80	453,717	283,343
▲ Appetito KA	CD-00021	▲ +80	457,707	285,649
▲ Frutto Inc	CD-00026	▲ +80	440,629	272,324
▲ Nobel Hobel AG	CD-00027	▲ +80	447,616	277,977
○ Hydra SAS	CD-00077	▷ +68	31,090	19,765
▼ Lindo Healthball	CD-00085	▷ +55	28,234	18,349

12 rows

i Product column typically shows the top/worst aggregation of data which is driven by inputs on the left-hand side of the dashboard. Columns with Trends usually show increase/constant/decrease metrics based on the Data Load calculation results. There is no direct relation between these two types of metrics and columns.

- **Product Class** - Based on cumulative contribution to the total volume in the last 12 months, the product is assigned into a category (the thresholds are configurable).
 - Very High Volume <= 10%
 - High Volume <= 20%
 - Normal Volume <= 75%
 - Low Volume = rest
- **Product Health Score** - Possible values: Excellent, Normal, Low, Problematic (multiselect enabled). For details see [Common Aspects of Dashboards \(Customer Insights\)](#).
- **Product Base** - Based on cumulative revenue contribution and the threshold defined, Customers and Products are classified as either Core or Long Tailed. For detailed formula explanation see [Glossary \(Customer Insights\)](#).
 - Core <=80%
 - Long Tailed > 80%

Filter Rules

 Does not apply

Portlets		User Inputs						
		Customer	Time Filter	Product Attribute	Customer Rank + Customer Rank Bucket	Product Class	Product Health Score	Product Base
Summary	Customer Summary	X	X			X	X	X
Pie Chart	Pricing Opportunity by Product Type	X	X			X	X	X
Bar Chart	Pricing Opportunity by Product Attribute	X	X	X		X	X	X
	Revenue and Margin Contribution	X	X			X	X	X
	Pricing Opportunity by Top Products	X			X	X	X	X
	Pricing Opportunity by Worst Products	X	X		X	X	X	X
Table	Product Health Summary	X	X		X (by Health Score)	X	X	X
	Average Invoice Price	X	X (*)		X (by Overall)	X	X	X

	Trends	X	X (*)		X (by Health Score)	X	X	X
	Pricing Opportunity	X	X	X	X	X	X	X
	Selling Opportunity	X	X	X	X	X	X	X

(*): Only sorts out Customers/Products that have traded in the period, does not affect calculation results.

Common Aspects of Dashboards (Customer Insights)

- [Customer Health Score, Product Health Score](#)
 - [Health Score Classes](#)
- [Customer Segmentation](#)
- [Trends Calculation](#)
- [Create Quote from a Dashboard](#)

Customer Health Score, Product Health Score

Customers or products are assigned into different classes based on Health Score calculated as a summary of Revenue Health Score and Margin Health Score (with weights set for particular inputs).

The Revenue Health Score and Margin Health Score are set according to the Revenue and Margin monthly change (trend) in the last 12 months (the maximum value is 100, the minimum value is 0) and to this classification:

Revenue or Margin Trend Last 12M	Revenue or Margin Health Score
>25%	100
15% - 25%	75
5% - 15%	60
-5% - 5%	50
-5% - -15%	40
-15% - -25%	25
< -25%	0

Health Score = Revenue Score * Revenue Weight + Margin Score * Margin Weight

The weight value is configurable and can be set between 0 and 1 for each (the default value is 0.5 for each); the summary of these two has to be equal to 1 (e.g. Revenue Weight = 0,5, Margin Weight = 0,5 => 0,5 + 0,5 = 1).

If a customer or product is decreasing in revenue and margin, the Health Score value goes down.

Health Score Classes

- Excellent > 75

- Normal > 50
- Low > 25
- Problematic = rest

Customer Segmentation

To group customers by common characteristics, the Customer Segment is defined in configuration (Price Parameters) - a list of fields the segment consists of, e.g. customer size, region, country etc.

According to values aggregated on the Customer Segment level, certain KPIs for particular customers are calculated, e.g. cross sell.

Trends Calculation

In many portlets there are Last 12M trends of particular KPIs (for example Revenue Trend Last 12M) presented either as such or as a part of a formula to calculate other KPIs.

The trends calculation granularity (time units between which the KPI change is considered) differs per various dashboards:

- Global View: monthly
- Detail View: monthly
- Product Portfolio: quarterly

In the Customer Summary portlets these are calculated always on the monthly level.

The formulas as such are described in [Glossary \(CIP\)](#).

Create Quote from a Dashboard

You can create a quote from the Customer Insights - Customer Products Portfolio dashboard, specifically from these portlets: Trends, Pricing Opportunity, and Selling Opportunity.

The screenshot shows the '3. Customer Insights - Customer Products Portfolio' dashboard. On the left is the 'Dashboard Settings' sidebar with filters for Customer (M. Becker), Product Attribute (Product Id), Time Filter (L12M), Product Rank (All), Product Rank Bucket (5), and Product Class. The main area contains three portlets:

- Trends:** A table with columns: Product Name, Product Id, Revenue Trend Last 12M, Margin Trend Last 12M, Volume Trend Last 12M, and Revenue Trend YTD. Two rows are selected: Meal L (Meal-C092) and NyChem 075 (NC-0075). A 'Create Quote' button is visible at the bottom.
- Selling Opportunity:** A table with columns: Product Id, Cross Sell, and Revenue Inc. Two rows are selected: MB-0031 and NC-0075. A 'Create Quote' button is visible at the bottom.
- Pricing Opportunity:** A table with columns: Product Id, Revenue Below Target, and % Revenue. Two rows are selected: BV-0008 and Meal-C090. A 'Create Quote' button is visible at the bottom.

Steps:

1. As inputs, select:
 - a. Customer and Time Filter which transactions exist.
 - b. Product Attribute = "Product Id"
2. Select a row in the result matrix.
3. Click the "Create Quote" button.

- A new quote is created and opened and it includes the parameters passed from the dashboard. Quote Type is defined in the PP table "CI_QuoteType_Mapping". If Quote Type is not defined in PP, the quote is created with the "default" Quote Type.

Company Parameter Values: CI Quote Type Mapping

+ Add Record Mass edit Mass delete ...

Dashboard Name	Portlet Name	Quote Type
Select Value	Select Value	Search...
CustomerInsights_CustomerProductsPortfolio	Trends	__DEFAULT__
CustomerInsights_CustomerProductsPortfolio	Pricing Opportunity	EVA
CustomerInsights_CustomerProductsPortfolio	Selling Opportunity	CPQ

Example: Quote created from Trends, Quote Type = default (CPQ)

← P-1350 (New Quote) Draft

Submit Recalculate Export Email Quote Duplicate

Header **Items** Attachments Workflow Messages

Items

+ Add Items + Add Folder ... ⚙️

Label	Product Id	Date Added	Default Inputs	Color
Search...	Search...	Search...	Search...	Search...
Sausage BM	MB-0029	a few seconds ago	Open	
Sausage BI	MB-0030	a few seconds ago	Open	
Sausage PS	MB-0031	a few seconds ago	Open	

Detail & Settings

Details Input Parameters Calculations

Quote Type

(Default)

Created By

tan

Status

Example: Quote created from Selling Opportunity, Quote Type = CPQ

← P-1351 (New Quote) Draft

Submit Recalculate Export Email Qu

Header **Items** Attachments Workflow Messages

Items

+ Add Items + Add Folder ... ⚙️

Label	Product Id	Date Added	Default Inputs	Color
Search...	Search...	Search...	Search...	Search...
NyChem 075	NC-0075	a few seconds ago	Open	
Mustard mild	MB-0045	a few seconds ago	Open	
NyChem 90	NC-0090	a few seconds ago	Open	
Meatball BS & Mustard	MB-0049	a few seconds ago	Open	

Detail & Settings

Details Input Parameters

Quote Type

CPQ

Created By

tan

Status

Draft

Admin User Reference (Customer Insights)

- [Mandatory Data \(Customer Insights\)](#)
- [User Roles \(Customer Insights\)](#)
- [Deployment \(Customer Insights\)](#)
- [Architecture Components \(Customer Insights\)](#)

Mandatory Data (Customer Insights)

Type	Data	Fields	Use Case

Master Data	Customer	Custom attributes (optional)	<ul style="list-style-type: none"> Active/Inactive Customers identification E.g. if CM.Attribute15 = "10" then the particular customer is considered active. Customer segmentation (any other data source can be used as well) For example, the segment can be defined by: <ul style="list-style-type: none"> Country + Region Customer Type + Customer Group ...
	Product	All the dimensions in the relevant Product Data Source (optional)	Customer Products Portfolio: Pricing and Selling Opportunities by Product Attribute: <ul style="list-style-type: none"> Product Attribute defined by a user input, the filter items are loaded from the Data Source definition. Used in Pricing Opportunities and Selling Opportunities portlets as a dimension (aggregation level).
Transaction Data	Sales Data (Transactions)	<ul style="list-style-type: none"> Unique ID Customer ID Customer Name Product ID Product Name Pricing Date Invoice Price (Gross) Margin Quantity 	Core

User Roles (Customer Insights)

To use Customer Insights Package, you need to be assigned the following Pricefx [user roles](#):

- Manage Price Lists (in the Price Setting section)
- View Company Parameters (in the Price Setting section)
- Manage PA Simulations (in Analytics section)

Deployment (Customer Insights)

Customer Insights Package is an extension of Sales Insights Package - it re-uses some Sales Insights components.

For the correct functionality, both Sales Insights Package 1.6 and Customer Insights Package 1.6 (or later versions) have to be present at the partition.

In this section:

- [A. Delete Previously Created Objects](#)
- [B. Run Deployment from PlatformManager](#)
- [C. Update Price Parameters and Advanced Configuration Options](#)
- [D. Verify Number of Threads at Partition](#)
- [E. Deploy & Run Calculation Flows \(Manual Step\)](#)

As the current version of PlatformManager does not support all of the steps needed to deploy the Customer Insights Package, the step [Deploy & Run Calculation Flows \(Manual Step\)](#) needs to be performed manually.

A. Delete Previously Created Objects

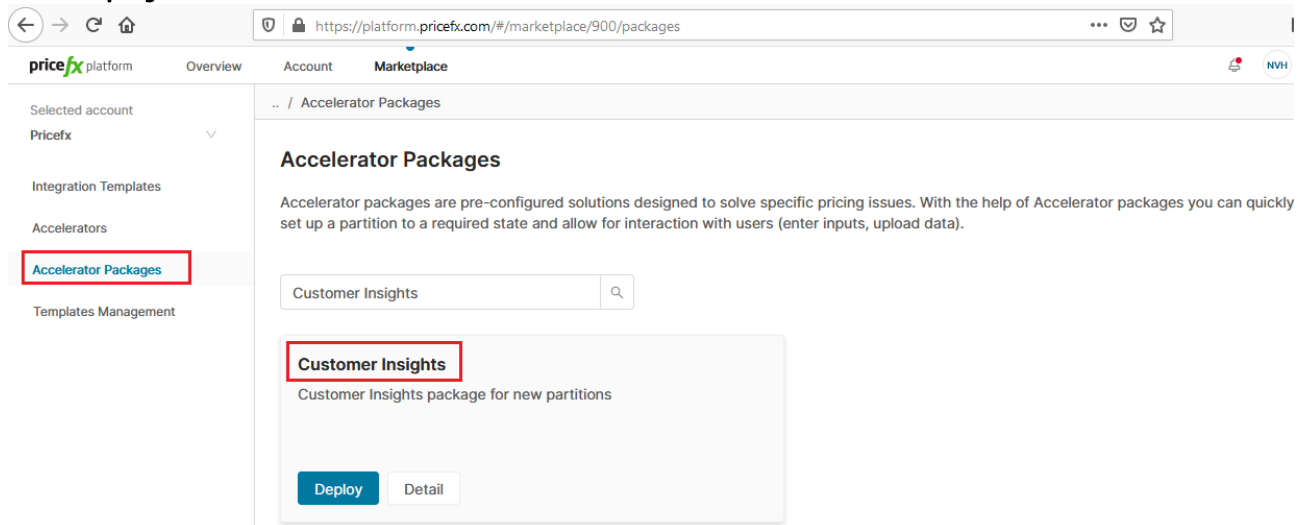
If you are going to run deployment to a partition where Customer Insights Package had been installed before, it is recommended to delete the previously created objects, namely:

- Simulation (located in Analytics module > Simulation: CustomerInsights)
- Company Parameters (main menu Company Parameters > CustomerInsights: all)

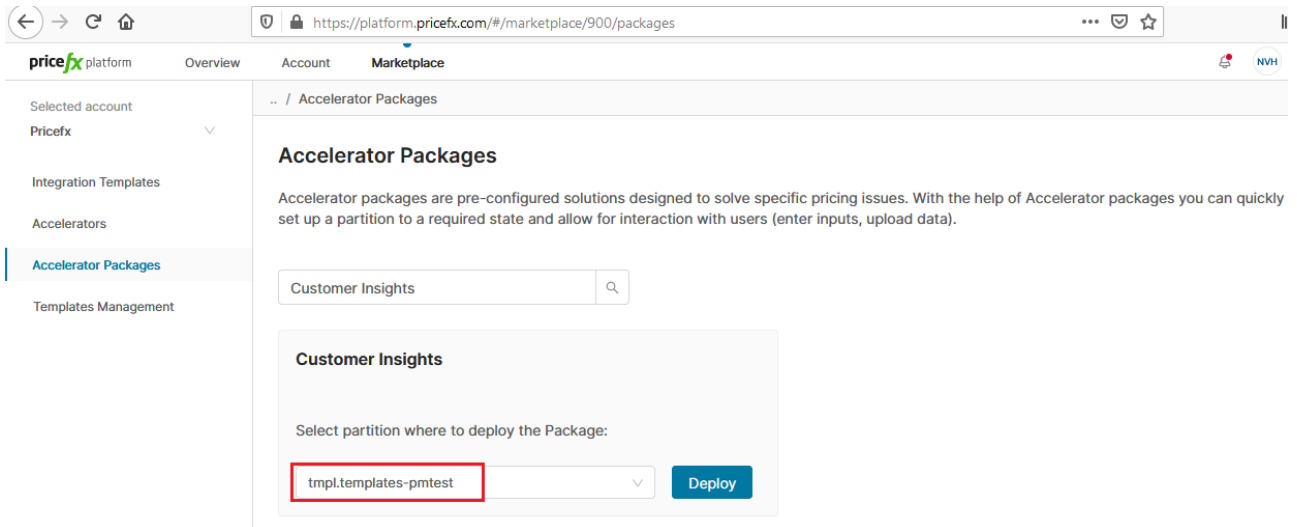
This step can be skipped if it is obvious that no changes were made to these objects (Company Parameters structure) since the previous version (see [Customer Insights Release Notes](#)).

B. Run Deployment from PlatformManager

1. Access PlatformManager at <https://platform.pricefx.com/> and log in with your account or using 0365.
2. Go to **Marketplace > Accelerator Packages**.
3. Find **Customer Insights Package**.
4. Click **Deploy**.



5. Select your partition from the dropdown list and click **Deploy**.



6. Set up Datamart mapping.

Customer Insights

Datamart Mapping

Customer Insights Package (CIP) is an extension of Sales Insights Package (SIP) - re-uses some of its components. For the correct functionality either the latest version of both SIP and CIP or at least versions mentioned in [Customer Insights Dashboard Deployment](#) guide (or later ones) have to be present at the partition.

Source Type *
Datamart

Datamart Name
Standard_Sales_Data

Datamart CustomerId Field Name *
Customer Id

Datamart Customer Name Field Name *
Customer Id

Datamart ProductId Field Name *
Product Id

Datamart Product Name Field Name *
Product Name

Datamart Pricing Date Field Name *
Pricing Date

Datamart Invoice Price Field Name *
Invoice Price

Datamart Margin Field Name *
Gross Margin

Datamart Quantity Field Name *
Quantity

Datamart Unique Id Field Name *
Unique Id

Continue Cancel

Select the Datamart name and field names (from the Datamart) for mapping and click **Continue**.
Wait for the system to finish the import.

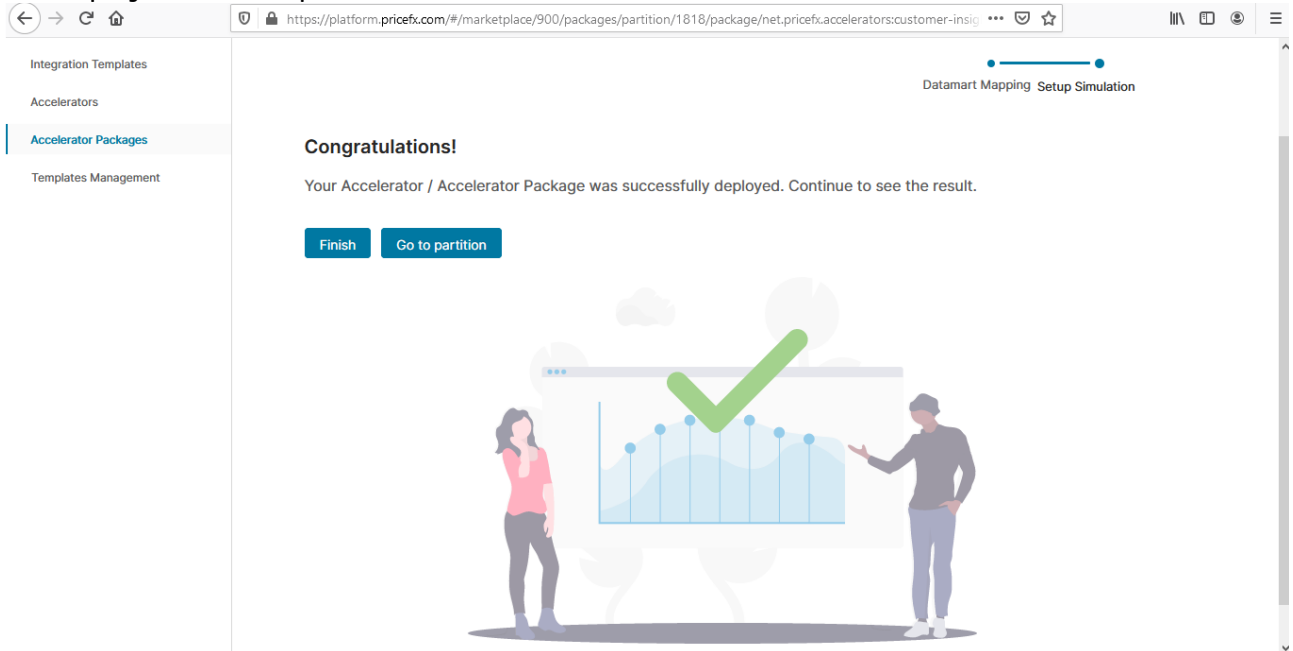
Customer Insights

Importing...

Deploying the predefined static logic

15%

The deployment is complete.



C. Update Price Parameters and Advanced Configuration Options

The *PFXTemplate_CustomerInsights_Customer_Segment* Company Parameter needs to be consistent with the partition data for the fields set as Active. This CP defines the fields used for a customer segmentation.

If the partition has some special setting (different from the Accelerator default setting), check and update the settings in other Company Parameters.

For more details see [Configuration \(CIP\)](#).

D. Verify Number of Threads at Partition

Starting with Customer Insights Package version 1.6, it is recommended to have 8 threads per partition where Customer Insights is deployed. If the number is lower, Data Load calculations may fail.

By default, the value is lower, so you need to check with Pricefx Support. Threads are set by them as a server config parameter `numberOfThreadsPerPartition` for both `paQuery` and `paDataLoad`.

E. Deploy & Run Calculation Flows (Manual Step)

To keep the aggregated data (CI_AggregatedData Data Source) synchronized with customer classification data (CI_CustomerClassification Data Source), a scheduled job needs to be set to run the Data Load CI_CustomerClassification first and then run CI_AggregatedData Data Load (Distributed Calculation).

This can be done in Calculation Flows by taking these steps:

1. Go to **Administration > Configuration > Calculation Flows**.
2. Find a calculation flow with the name "CustomerInsights_Sequencer".

The screenshot shows the 'Calculation Flows' configuration page. On the left, the 'Calculation Flows' menu item is highlighted. The main area is divided into two panels: 'Flows' and 'Flow Items'. In the 'Flows' panel, the 'CustomerInsights_Sequencer' flow is selected. In the 'Flow Items' panel, a table lists the items:

Name	Periodic	Next Run Date	Time Unit	Number of Time Units	Logic Name
Sequencer	✓	26/08/2021 8:41	Day	1	Customer

3. Select the "CustomerInsights_Sequencer" and update **Time Unit** and **Number of Time Units**. You define here how often the data will be refreshed and when. This setting has a big impact on the dashboard results and their validity.

This screenshot is identical to the previous one, but with a red box highlighting the 'Time Unit' and 'Number of Time Units' columns in the 'Flow Items' table, indicating the fields to be updated.

4. Click the **Deploy** button to deploy the calculation flow.

pricefx Administration / Configuration / System Configuration / Calculation Flows

System Configuration

- General Settings
- Internationalization
- Home Page
- Bound Partitions
- Advanced Configuration Options
- My Workflows
- Entitlements
- Calculation Flows**
- Analytics**
 - Analytics General Settings
 - Analytics to Price Setting Mapping
 - General Chart Settings
- Price Setting**
 - Integration Tags
 - Work Status Options

Calculation Flows

Flows + Add

Name	Draft
CustomerInsights_Sequencer	Select Value

1 row

Flow Items + Add

Name	Periodic	Next Run Date	Time Unit	Number of Time Units	Logic Name
Sequencer	✓	26/08/2021 8:41	Day	1	Customer

1 row

Buttons: Delete, Deploy

5. When finished, the system will show more lines for the flows.

pricefx Administration / Configuration / System Configuration / Calculation Flows

System Configuration

- General Settings
- Internationalization
- Home Page
- Bound Partitions
- Advanced Configuration Options
- My Workflows
- Entitlements
- Calculation Flows**
- Analytics**
 - Analytics General Settings
 - Analytics to Price Setting Mapping
 - General Chart Settings
- Price Setting**
 - Integration Tags
 - Work Status Options

Calculation Flows

Flows + Add

Name	Draft
CustomerInsights_Sequencer	Select Value
CustomerInsights_Sequencer	✓

2 rows

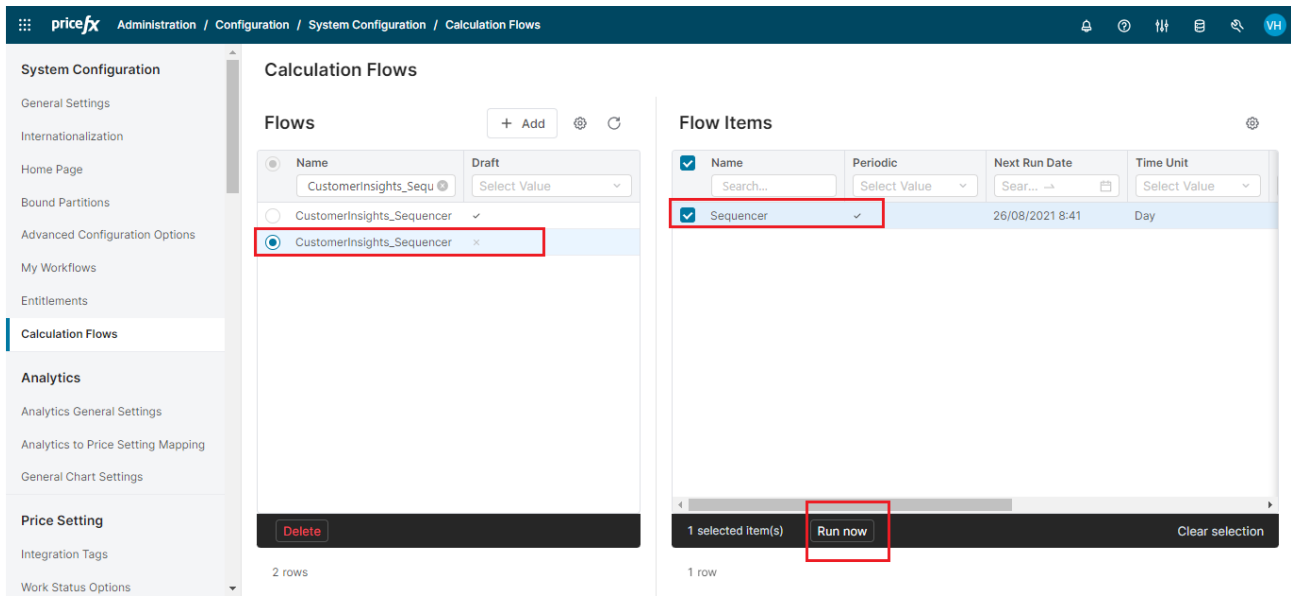
Flow Items + Add

Name	Periodic	Next Run Date	Time Unit
Sequencer	✓	26/08/2021 8:41	Day

1 row

Buttons: Delete

6. If you want to run the calculation flow immediately, select the row in the right window and then click **Run now**.



Architecture Components (Customer Insights)

Extension

Customer Insights Package is an extension of Sales Insights Package:

- The configuration settings of waterfall chart is re-used from [Sales Insights](#).

Advanced Configuration Option

- customer-insights-accelerator - For details see [Advanced Configuration Options \(Customer Insights\)](#).

Logics

Library

- CustomerInsights

PA Data Load

- CustomerInsights_Aggregation_Sim

Dashboards

- CustomerInsights_CustomerDetailView
- CustomerInsights_CustomerProductsPortfolio
- CustomerInsights_GlobalView

Customer Parameters

- PFXTemplate_CustomerInsights_Configuration - incl. sample data
- PFXTemplate_CustomerInsights_Customer_Segment - incl. sample data

For details see [Company Parameters \(Customer Insights\)](#).

Generic Logic

- CustomerInsights_CustomerDetails
- CustomerInsights_CustomerProductsPortfolio
- CustomerInsights_DimensionFilter_Configurator
- CustomerInsights_GlobalView

Analytics Simulation Datamart

- CustomerInsights

Data Sources

- CI_AggregatedData - Stores the pre-calculated data.
- CI_CustomerClassification - Stores information on customer segments and active/inactive attribute for Customers.

Data Loads

- CI_AggregatedData - Runs a logic to fill data into Data Source CI_AggregatedData. This is Data Load of the type Calculation+.
- CI_CustomerClassification - Runs a logic to fill data into Data Source CI_CustomerClassification. This is Data Load of the type Calculation.

Calculation Flow

- CustomerInsights_Sequencer - Keeps the data (Data Sources, Datamart) synchronized by filling the DS CI_CustomerClassification before the DS CI_AggregatedData is filled.

Preferences

Used for the dashboards - with layouts of the portlets.

Dependencies

This accelerator depends on the following accelerators which will be deployed during the installation too.

- Shared Library
- Dashboards Library

Technical User Reference (Customer Insights)

- [Company Parameters \(Customer Insights\)](#)
- [Advanced Configuration Options \(Customer Insights\)](#)
- [Waterfall Chart Configuration \(Customer Insights\)](#)
- [Groovy Libraries and Logics \(Customer Insights\)](#)
- [Data Flow \(Customer Insights\)](#)

Company Parameters (Customer Insights)

Customer Insights Package works based on configuration data which users can adjust to match their business case. These configuration data are stored in Company Parameter tables. In addition, the package uses Company Parameters tables to define currency symbols and Quote Types.

PFXTemplate_CustomerInsights_Configuration CP

Most parameters used in Customer Insights are saved in this table, including these main columns:

- **Category** - Category of the configuration.
- **Key Name** - Key name of the configuration.
- **Value** - Defines the value corresponding to the key-set.
- **Is Default** - If set to Yes, the dashboard will use the value of this item as a default value.
- **Order** - Sets the order of items in the same Category.
- **Key Label** - Defines a label shown on the chart/input.
- **Note** - Specifies which logic type is used.

Category	Key Name	Value	IsDefault	Order	Key Label	Note
MASTER_DATA	TIME_FILTER	MTD		1		Dashboard logic
MASTER_DATA	TIME_FILTER	QTD		2		Dashboard logic
MASTER_DATA	TIME_FILTER	YTD	YES	3		Dashboard logic
MASTER_DATA	TOP_WORST_CUSTOMERS	10		2		Dashboard logic
MASTER_DATA	TOP_WORST_CUSTOMERS	50		4		Dashboard logic
MASTER_DATA	TOP_WORST_CUSTOMERS	100		5		Dashboard logic
MASTER_DATA	TOP_WORST_PRODUCTS	10		2		Dashboard logic
MASTER_DATA	TOP_WORST_PRODUCTS	50		4		Dashboard logic
MASTER_DATA	TOP_WORST_PRODUCTS	100		5		Dashboard logic
CUSTOMER_CLASSIFICATION_HEALTH	EXCELLENT	75		1	Excellent	Simulation logic
CUSTOMER_CLASSIFICATION_HEALTH	GOOD	50		2	Good	Simulation logic
CUSTOMER_CLASSIFICATION_HEALTH	NORMAL	25		3	Normal	Simulation logic
CUSTOMER_CLASSIFICATION_HEALTH	PROBLEMATIC	0		4	Problematic	Simulation logic

Dashboard Configuration

Time Filter Selector Input

Time Filter :

- MTD
- QTD
- YTD
- L3M
- L6M
- L12M

Data for this selector are defined in Category = "MASTER_DATA" and Key Name = "TIME_FILTER".

Category	Key Name	Value	IsDefault	Order	Key Label
MASTER_DATA	TIME_FILTER	MTD			1 MTD
MASTER_DATA	TIME_FILTER	QTD			2 QTD
MASTER_DATA	TIME_FILTER	YTD	YES		3 YTD
MASTER_DATA	TIME_FILTER	L3M			4 L3M
MASTER_DATA	TIME_FILTER	L6M			5 L6M
MASTER_DATA	TIME_FILTER	L12M			6 L12M

If you want to change the text shown in the Time Filter selector (e.g. MTD Month To Date), you need to update the value of the column "Key Label" from "MTD" to "Month To Date". If you clear the value of this column, the Time Filter selector will show the value of the "Value" column.

Top/Worst Customers Selector Input

Top/Worst Customers :

- 5
- 10
- 20
- 50
- 100

Data for this selector are defined in Category = "MASTER_DATA" and Key Name = "TOP_WORST_CUSTOMERS".

Category	Key Name	Value	IsDefault	Order
MASTER_DATA	TOP_WORST_CUSTOMERS	5	YES	1
MASTER_DATA	TOP_WORST_CUSTOMERS	10		2
MASTER_DATA	TOP_WORST_CUSTOMERS	20		3
MASTER_DATA	TOP_WORST_CUSTOMERS	50		4
MASTER_DATA	TOP_WORST_CUSTOMERS	100		5

If you want to add more values to this list, you need add a new row with same category and key name.

Example: To add a value "200" to the list and put it at the end of the list, you need to add the following:

- Category= MASTER_DATA
- Key Name = TOP_WORST_CUSTOMER

- Value = 200
- Order = 6

Top/Worst Products Selector Input

Top/Worst Products : 5

- 5
- 10
- 20
- 50
- 100

Data for this selector are defined in Category = "MASTER_DATA" and Key Name = "TOP_WORST_PRODUCTS".

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order [^]
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	5	YES	1
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	10		2
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	20		3
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	50		4
<input type="checkbox"/>	MASTER_DATA	TOP_WORST_PRODUCTS	100		5

KPI Selector Input

KPI : Revenue

- Revenue
- Margin%
- Volume
- Health Score

Data for this selector are defined in Category = "MASTER_DATA" and Key Name = "KPI".

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order	Key Label
<input type="checkbox"/>	MASTER_DATA	KPI	Revenue		1	Revenue
<input type="checkbox"/>	MASTER_DATA	KPI	Margin%		2	Margin %
<input type="checkbox"/>	MASTER_DATA	KPI	Volume		3	Volume
<input type="checkbox"/>	MASTER_DATA	KPI	Health Score	YES	4	Health Score

If you want to change the text shown in the KPI selector (e.g. "Margin %" "Margin Percent"), you need to update the value of the column "Key Label" from "Margin %" to "Margin Percent". If you clear the value of this column, the KPI selector will show the value of the "Value" column.

Display of Trend Columns in Table

In the tables of the dashboard, Trend columns are displayed with three formats based on the setting:

- Green up arrow
- Orange horizontal arrow
- Red down arrow

Revenue Trend Last 12M	Margin Trend Last 12M	Volume Trend Last 12M	Revenue Trend YTD	Margin Trend YTD
▲ +23.91%	▼ -12.69%	▼ -21.56%	▼ -50.82%	▼ -23.47%
▼ -38.95%	▼ -37.65%	▼ -44.26%	▼ -67.33%	▼ -69.95%
▲ +97.94%	▲ +95.92%	▲ +99.17%	▼ -78.34%	▼ -78.35%
▼ -54.99%	▼ -51.53%	▼ -51.76%	▼ -79.92%	▼ -79.62%
▲ +98.12%	▲ +99.28%	▲ +88.33%	▼ -89.91%	▼ -89.92%
▼ -49.67%	▼ -50.92%	▼ -50.36%	▼ -82.82%	▼ -82.79%
▲ +94.98%	▲ +94.87%	▲ +95.60%	▼ -91.90%	▼ -92.96%
▲ +95.76%	▲ +96.99%	▲ +93.22%	▼ -92.93%	▼ -92.92%
▼ -20.11%	▼ -13.79%	▼ -21.91%	▼ -81.94%	▼ -84.48%
▼ -28.95%	▼ -24.70%	▼ -27.82%	▼ -77.16%	▼ -79.03%

You can define threshold values to match your business case - just update the value of the key name "TREND_UPPER" and "TREND_LOWER":

Green and up arrow	<i>Trend value</i> >= TREND_UPPER
Orange and horizontal arrow	TREND_LOWER < <i>Trend value</i> < TREND_UPPER
Red and down arrow	<i>Trend value</i> <= TREND_LOWER

<input type="checkbox"/>	Category	Key Name	Value	IsDefault	Order
<input type="checkbox"/>	CONFIGURATION	TREND_UPPER	0.6		
<input type="checkbox"/>	CONFIGURATION	TREND_LOWER	0.3		

Display of Health Score Columns

This column has the same display format as the trends columns but the threshold is different.

You can define it in Category = "CONFIGURATION", the key names are "CUSTOMER_HEALTH_SCORE_UPPER" and "CUSTOMER_HEALTH_SCORE_LOWER":

Green and up arrow	
--------------------	--

The Health Score column is included in two tables: Customer Health Summary Table (Customer Global View Dashboard) and Product Health Summary Table (Customer Product Portfolio View Dashboard):

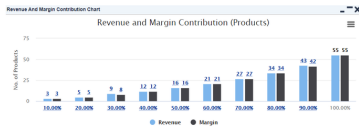
Customer Health Summary						
Customer Name	Customer Id	Health Score	Total Revenue	Total Margin	Total Volume	Margin %
▲ Price Fix AG	CD-0004	▲ +60.00	866,606.35	378,324.25	293,640	43.66%
▲ Sajojo DE	CD-0012	▲ +160.00	736,321.50	354,753.92	260,492	41.26%
▲ M. CP	CD-0011	▲ +10.00	719,403.84	295,578.76	243,228	41.09%
▲ Steak House	CD-0013	▼ -30	475,263.12	160,130.34	157,388	33.89%
▲ S. Sumilo	CD-0015	▼ -25.00	475,205.47	162,427.59	158,491	34.18%
▲ Appetito Mz	CD-0001	▲ +160.00	461,614.58	248,100.76	160,865	53.75%
▲ Kraftmeat	CD-0014	▼ -25.00	456,796.04	155,990.03	150,866	33.95%
▲ Francomeat	CD-0019	▼ -30	324,597.31	115,440.22	168,017	35.56%

Product Health Summary						
Product Name	Product Id	Health Score	Total Revenue	Total Margin	Total Volume	Margin %
▲ Configured Meatball	MB-0012	▼ -12.00	581,603	186,696	199	32.10%
▲ Meatball BI	MB-0010	▼ -60	151,946	14,459	63	27.36%
▲ Meatball PS	MB-0014	▼ -30	194,619	64,913	63	33.35%
▲ Meatball PM	MB-0016	▼ -30	547.02	178,147	177	32.57%
▲ Meatball PI	MB-0018	▼ -30	368,164	123,487	160	33.54%
▲ Sausage BS & Huskard	MB-0019	▼ -60	302,546	130,033	346	36.04%
▼ Bundle	MB-0060	▼ -30	511,522	198,547	200	38.07%
▼ Meal S	Meal-0280	▼ -30	823,216	179,727	205	34.35%
▼ Meatball DM	MB-0015	▼ -30	479,016	169,101	491	34.76%

	<i>Health Score</i> >=	CUSTOMER_HEALTH_SCORE_UPPER
Orange and horizontal arrow	CUSTOMER_HEALTH_SCORE_LOWER < <i>Health Score</i> <	CUSTOMER_HEALTH_SCORE_UPPER
Red and down arrow	<i>Health Score</i> <=	CUSTOMER_HEALTH_SCORE_LOWER

Category	Key Name	Value	IsDefault	Order
CONFIGURATION	CUSTOMER_HEALTH_SCORE_UPPER	70		
CONFIGURATION	CUSTOMER_HEALTH_SCORE_LOWER	40		

Revenue and Margin Contribution Chart (Customer Product Portfolio Dashboard)



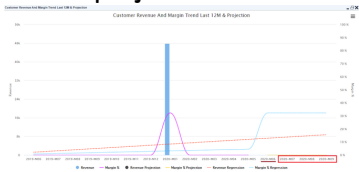
In this chart, you can re-define:

- Number of buckets - via the key name = "NUMBER_OF_BUCKETS"
- Percent of the start bucket / percent of the end bucket via the key name = "BUCKET_START_PERCENT" and "BUCKET_END_PERCENT"

Category	Key Name	Value	IsDefault	Order	Note
REVENUE_AND_MARGIN_CONTRIBUTION	NUMBER_OF_BUCKETS	10			
REVENUE_AND_MARGIN_CONTRIBUTION	BUCKET_START_PERCENT	0			
REVENUE_AND_MARGIN_CONTRIBUTION	BUCKET_END_PERCENT	100			

Number of Next months (Customer Detail View Dashboard)

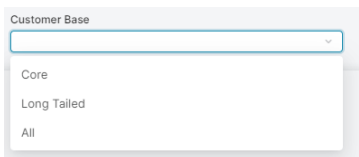
In the Customer Detail View dashboard, we have two charts: "Customer Revenue And Margin Trend Last 12M & Projection" and "Number Of Transactions Trend Last 12M & projection".



The default number of next months is three. You can update this value in Category = "MASTER_DATA" and key name = "NEXT_MONTH_AMOUNT".

Category	Key Name	Value	IsDefault	Order	Note
MASTER_DATA	NEXT_MONTH_AMOUNT	3			

Customer Base, Product Base (Core Customers and Products) Selector Input



Data for this selector are defined in Category = "Configuration" and Key Name = "CUSTOMER_CORE" or "PRODUCT_CORE".

The value specifies the cumulative revenue thresholds for the Core vs. Long Tailed definition.

Values range: 0..1 (e.g. 0.8 = 80%).

<input type="checkbox"/> Category [▲]	Key Name	Value
<input type="text" value="Search..."/>	<input type="text" value=""/>	<input type="text" value=""/>
<input type="checkbox"/> CONFIGURATION	CUSTOMER_CORE	0.8
<input type="checkbox"/> CONFIGURATION	PRODUCT_CORE	0.8

Pre-Processing (Simulation Logic) Configuration

Customer Health Score

For more details see [Glossary \(CIP\)](#).

Health Score = Revenue Score * Revenue Weight + Margin Score * Margin Weight

Note: Revenue Weight + Margin Weight = 1

Revenue Score / Margin Score is based on the defined table (the Trend value is the revenue/margin trend last 12M):

Trend	Health Score
>25%	100
15% - 25%	75
5% - 15%	60
-5% - 5%	50
-5% - -15%	40
-15% - -25%	25
< -25%	0

You can change the threshold trends value in the CP as shown below:

<input type="checkbox"/> Category	Key Name	Value	IsDefault	Order
<input type="checkbox"/> SCORE_CLASSIFICATION	100	0.25		1
<input type="checkbox"/> SCORE_CLASSIFICATION	75	0.15		2
<input type="checkbox"/> SCORE_CLASSIFICATION	60	0.05		3
<input type="checkbox"/> SCORE_CLASSIFICATION	50	-0.05		4
<input type="checkbox"/> SCORE_CLASSIFICATION	40	-0.15		5
<input type="checkbox"/> SCORE_CLASSIFICATION	25	-0.25		6
<input type="checkbox"/> SCORE_CLASSIFICATION	0	-10		7

You can change the Revenue Weight and Margin Weight values in the Company Parameter.

- If you set just the value of Revenue Weight, the system will calculate Margin Weight = (1 - Revenue Weight) automatically.
- If you set just the value of Margin Weight, the system will calculate Revenue Weight = (1 - Margin Weight) automatically.
- If you do not set either of these values, the default value is: Revenue Weight = Margin Weight = 0.5.

<input type="checkbox"/> Category	Key Name	Value	IsDefault	Order
<input type="checkbox"/> CONFIGURATION	REVENUE_WEIGHT	0.5		
<input type="checkbox"/> CONFIGURATION	MARGIN_WEIGHT	0.5		

Customer Revenue Classification

The simulation logic uses this setting to identify the customer classification based on the contribution and cumulative revenue contribution of each customer.

You can change the threshold value and label (show on the dashboard) in the PP as shown below:

Category	Key Name	Value	InDefault	Order	Key Label	Note
CUSTOMER_CLASSIFICATION_REVENUE	A	20		1	A	Simulation logic
CUSTOMER_CLASSIFICATION_REVENUE	B	50		2	B	Simulation logic
CUSTOMER_CLASSIFICATION_REVENUE	C	80		3	C	Simulation logic
CUSTOMER_CLASSIFICATION_REVENUE	D	100		4	D	Simulation logic

Customer Health Score Classification

This classification is based on the customer health score - the simulation logic assigns customers to different classes based on Health Score.

You can change the threshold value and label (shown on the dashboard) in the PP as shown below:

Category	Key Name	Value	InDefault	Order	Key Label	Note
CUSTOMER_CLASSIFICATION_HEALTH	EXCELLENT	75		1	Excellent	Simulation logic
CUSTOMER_CLASSIFICATION_HEALTH	GOOD	50		2	Good	Simulation logic
CUSTOMER_CLASSIFICATION_HEALTH	NORMAL	25		3	Normal	Simulation logic
CUSTOMER_CLASSIFICATION_HEALTH	PROBLEMATIC	0		4	Problematic	Simulation logic

Product Quantity Classification

The simulation logic uses this setting to identify the product classification based on the contribution and cumulative volume contribution of each product.

You define the threshold value in this CP, for example:

- Very High Volume $\leq 10\%$
- High Volume $\leq 20\%$
- Normal Volume $\leq 75\%$
- Low Volume = rest

You must update the threshold value and label (shown on the dashboard) in the CP as shown below:

Category	Key Name	Value	InDefault	Order	Key Label	Note
PRODUCT_CLASSIFICATION_QUANTITY	VERY_HIGH	10		1	Very High	Simulation logic
PRODUCT_CLASSIFICATION_QUANTITY	HIGH	20		2	High	Simulation logic
PRODUCT_CLASSIFICATION_QUANTITY	NORMAL	75		3	Normal	Simulation logic
PRODUCT_CLASSIFICATION_QUANTITY	LOW	100		4	Low	Simulation logic

Commodity vs. Specialty Product Classification

The simulation logic uses this setting to identify if a product is Commodity or Specialty Product.

It is defined based on an average margin achieved by the product.

- Specialty $\geq 30\%$
- Commodity = rest

You can update the threshold value and label (shown on the dashboard) in the CP as shown below:

Category	Key Name	Value	InDefault	Order	Key Label	Note
PRODUCT_CLASSIFICATION_HEALTH	SPECIALTY	30		1	Specialty	Simulation logic
PRODUCT_CLASSIFICATION_HEALTH	COMMODITY	0		2	Commodity	Simulation logic

Inactive Customer classification

There is an option to define the name and value of the key which identifies active Customers in Customer Master (e.g., Customer Class = C -> active).

CP definition: category: CUSTOMER_MASTER_ACTIVE_KEY, fields: KEY_NAME, KEY_VALUE.

Company Parameter Values : CIP_Config [2]

key	Key Name	Value	IsDef.	Order	Key Label
<input checked="" type="checkbox"/>	CUSTOMER_MASTER_ACTIVE_KEY	KEY_VALUE	C		
<input checked="" type="checkbox"/>	CUSTOMER_MASTER_ACTIVE_KEY	KEY_NAME	attribute3		Customer Class

PFXTemplate_CustomerInsights_Customer_Segment CP

This table is used to define the customer segmentation. Customer segments can be obtained from multi data source types such as: Data Source, Customer Master, Customer Extensions. You can define it in this table.

You can add more customer attributes to the table if they are not present yet. Set the value of the Is Active column to YES, if you want to add this attribute into the segmentation processing and exclude the field with isCustomerId = YES. The field set to Is Customer Id = "YES" will **not** join into the segment data, the system uses it as a key to find data.

Main columns:

- **Source Type** - Data Source types from which we get data for the customer segments. They include: DMDS (Data Source), C (Customer Master), CX (Customer Extension).
- **Source Name** - Data source name.
- **Source Field** - Source Field in the Data Source.
- **Field Label** - Label of the field in the Data Source.
- **Is Active** - If set to 'YES', the dashboard will add this field in the segmentation.
- **Is Customer Id** - If this field is customer ID in a Data Source, set the value to 'YES'. It helps the system get the correct "Customer Id" field in the source.
If the Data Source is Customer Master or Customer Extension, you do not need to add the "customer Id" field name.
If the Data Source is datasource, you must add the "customer Id" field name.

Note: For the field you want to be a key to find data in DMDS, you need to set IsActive = "YES" and IsCustomerId = YES".

Example

We define that a customer segment will be obtained from the Data Source named 'Customer' with these parameters:

Case 1: Segment data query from one source

Customer Type = active

Region = active

3 Customer Types = {Enduser, Industry, Restaurant}

4 Regions = {America, Oceania, Asia, Europe}

=> We will have 3*4 = 12 Customer segments = {Enduser_America, Enduser_Oceania,.....}

Source Type	Source Name	Source Field	Field Label	Is Active	Is Customer Id
<input checked="" type="checkbox"/>	Customer	attribute1	Customer Group		
<input checked="" type="checkbox"/>	Customer	attribute2	Customer Type		
<input checked="" type="checkbox"/>	Customer	attribute3	Customer Class		
<input checked="" type="checkbox"/>	Customer	attribute4	Region		
<input checked="" type="checkbox"/>	Customer	CustomerId		YES	YES
<input checked="" type="checkbox"/>	Customer	CustomerType	Customer Type	YES	
<input checked="" type="checkbox"/>	Customer	Region	Region	YES	

Case 2: Segment data query from two sources

Customer Type: get from Customer Master

Region: get from DMDS "Customer"

You need to create a configuration like this:

Source Type	Source Name	Source Field	Field Label	Is Active	Is Customer Id
<input checked="" type="checkbox"/>	Customer	attribute1	Customer Group		
<input checked="" type="checkbox"/>	Customer	attribute2	Customer Type	YES	
<input checked="" type="checkbox"/>	Customer	attribute3	Customer Class		
<input checked="" type="checkbox"/>	Customer	attribute4	Region		
<input checked="" type="checkbox"/>	Customer	CustomerId		YES	YES
<input checked="" type="checkbox"/>	Customer	CustomerType	Customer Type	YES	
<input checked="" type="checkbox"/>	Customer	Region	Region	YES	

Note:

- When querying segment data from multiple sources, the system will take time to process

Note: If the customer segment is queried from a Data Source, we **must** add the 'customer Id' field name in this source and set the value to 'YES' in the 'Is Customer Id' column.

(query and combine). You should consider this before processing.

- If the segment data is large and complex for combination, you should create a DMDS to build the customer segment data first, then use it in this configuration for Customer Insights Package.

CurrencySymbols CP

This is a Company Parameter of Sales Insights Package and it should be deployed by this package. Customer Insights re-uses it to show the currency symbol in charts. If your currency is missing, you can add it to this table.

<input type="checkbox"/>	Name	Value
<input type="checkbox"/>	AUD	\$
<input type="checkbox"/>	NZD	\$
<input type="checkbox"/>	USD	\$
<input type="checkbox"/>	HKD	\$
<input type="checkbox"/>	EUR	€
<input type="checkbox"/>	JPY	¥
<input type="checkbox"/>	GBP	£
<input type="checkbox"/>	CHF	CHF

CI_QuoteType_Mapping CP

This table is used to define the Quote Type on each portlet of the dashboard. When a user selects multiple products and clicks the **Create Quote** button on a portlet, a new Quote with this Quote Type mapping will be created.

Currently, we support creating a new quote from 3 portlets of the Customer Products Portfolio dashboard, so this table has just 3 rows:

<input type="checkbox"/>	Dashboard Name	Portlet Name	Quote Type
<input type="checkbox"/>	CustomerInsights_CustomerProductsPortfolio	Trends	__DEFAULT__
<input type="checkbox"/>	CustomerInsights_CustomerProductsPortfolio	Pricing Opportunity	__DEFAULT__
<input type="checkbox"/>	CustomerInsights_CustomerProductsPortfolio	Selling Opportunity	__DEFAULT__

If you want to change Quote Type, you need to update the column "Quote Type" of this table from "__DEFAULT__" to your Quote Type name.

Advanced Configuration Options (Customer Insights)

Customer Insights Package also uses the Advanced Configuration Option (AP) with the name "customer-insights-accelerator" to store:

- Data source information
- Mapping fields

This is a template for this Advanced Configuration Option:



customer-insights-accelerator.txt

Waterfall Chart Configuration (Customer Insights)

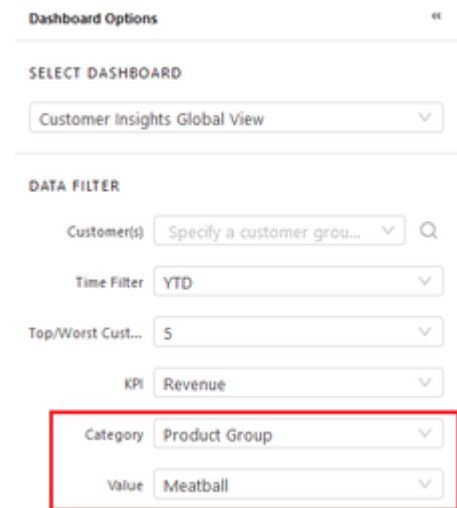
As Customer Insights is an extension of Sales Insights, the configuration of waterfall chart is re-used from Sales Insights. To update the waterfall configuration, follow [waterfall configuration details](#).

Groovy Libraries and Logics (Customer Insights)

These are the main Groovy logics in this architecture:

CustomerInsights (Groovy library)		The main library is used in the Customer Insights Dashboard logic. It provides functions to query and process data.
CustomerUtils	Provides functions related to Customer such as: getAllCustomerIdsWithOtherAttributes, groupByCustomerAttributes	
ProductUtils	Provides functions related to Products such as: getProductAttributes, getSourceFieldsFromProductDataSource	
DateUtils	Provides functions related to dates.	
Configuration	Reads configured data from a price parameter and advanced configuration options.	
CustomerGlobalDashboardUtils	Provides logics to process data to be shown in CustomerInsights_GlobalView dashboards.	
CustomerDetailDashboardUtils	Provides logics to process data to be shown in CustomerInsights_CustomerDetails dashboards.	
CustomerProductPortfolioDashboardUtils	Provides logics to process data to be shown in CustomerInsights_CustomerProductsPortfoliodashboards.	
CalculationCommonUtils	Provides some common/calculation functions.	

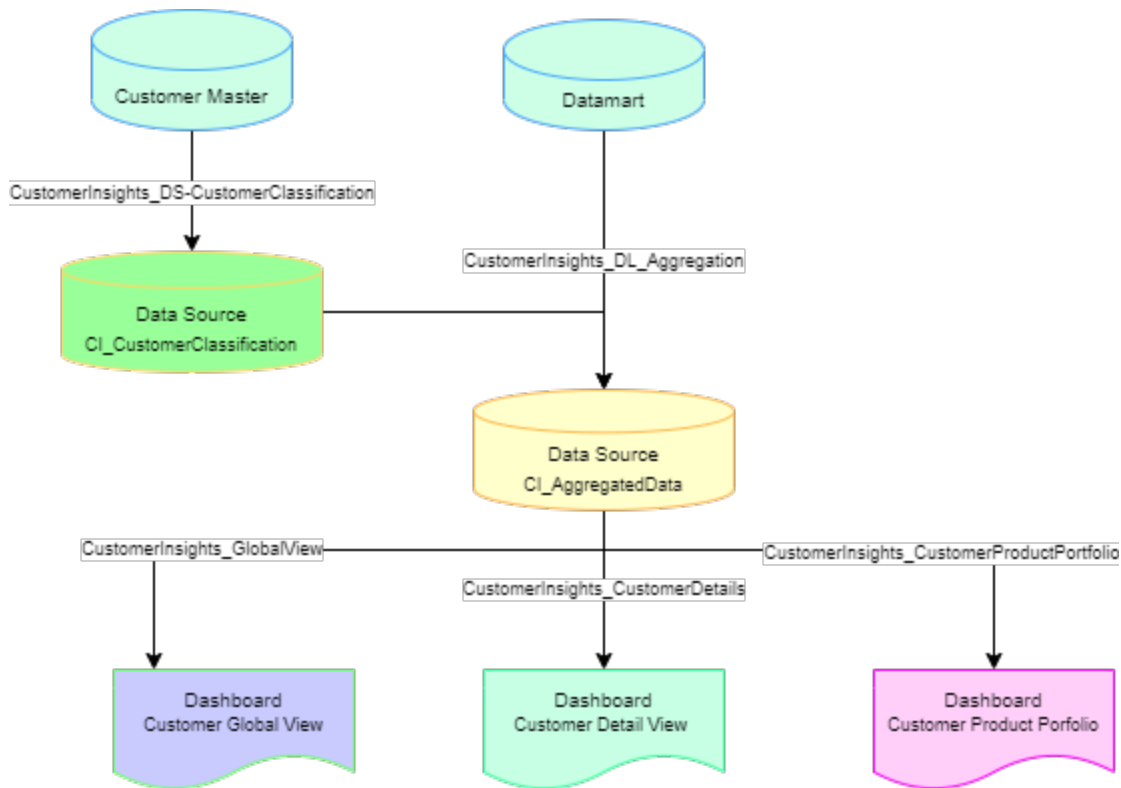
QueryUtils	Provides functions to query data from the Datamart / Data Source.
Constant	Defines constants used in the Customer Insights Dashboard.
DataTable	Provides functions to build the row format of the result matrix to be displayed in the dashboard.
InputUtils	Provides functions to build input controls such as: Time Filter, Category/Value...
Classification	Provides logics to pre-process data such as: calculate Customer Health Score, Trends... Used in dataload logic (CustomerInsights_DL_Aggregation).
ClassificationQueryHelper	Provides functions to build a Query object to summarize data from Datamart / Data Source to use in Classification.
CalculationQueryHelper	Provides functions to build a Query object to summarize data from Datamart / Data Source to use in Calculation.
SummaryPortletUtils	Provides functions to create a summary data table (Summary portlet) in dashboards.
CustomerSegmentUtils	Provides functions to query and build segment data from sources.
CommonDashboardParameter	Defines common parameters used in the package.
GlobalViewDashboardParameter	Defines parameters used in the Global View dashboard, they are inherited from Common Dashboard Parameter.
DetailViewDashboardParameter	Defines parameters used in the Detail View dashboard, they are inherited from Common Dashboard Parameter.
PortfolioDashboardParameter	Defines parameters used in the Portfolio dashboard, they are inherited from Common Dashboard Parameter.
DataLoadParameter	Defines parameters used in the Data Load logic (CustomerInsights_DL_Aggregation), they are inherited from Common Dashboard Parameter.
InactiveCustomerUtils	Provides functions to process inactive customers.
CommonChartUtils	Provides functions to process charts in dashboards.
DataLoadUtils	Provides functions to process Data Loads such as: find dataload...
SharedLib	Groovy library to provide common functions.
HighchartsLibrary	Groovy library to provide functions to build Highcharts shown on the dashboard. Use version 1.1.2 and higher.

SIP_Dashboards_Commons	Groovy library of Sales Insights, it re-uses some methods to build a waterfall chart in a dashboard.
CustomerInsights_DimensionFilter_Configurator	<p>Configurator logic to build the Category/Value input in dashboards.</p> 
CustomerInsights_GlobalView	Customer Global View dashboard logic.
CustomerInsights_CustomerDetails	Customer Detail View dashboard logic.
CustomerInsights_CustomerProductPortfolio	Customer Product Portfolio dashboard logic.
CustomerInsights_DL_Aggregation	Fills data into Data Source CI_AggregatedData
CustomerInsights_CF_Sequencer	CF logic.
CustomerInsights_DS_CustomerClassification	Fills data into Data Source CI_CustomerClassification.

Note: Almost all dashboard logics use SQL to have a better performance in case there are large data sets.

Data Flow (Customer Insights)

Overview



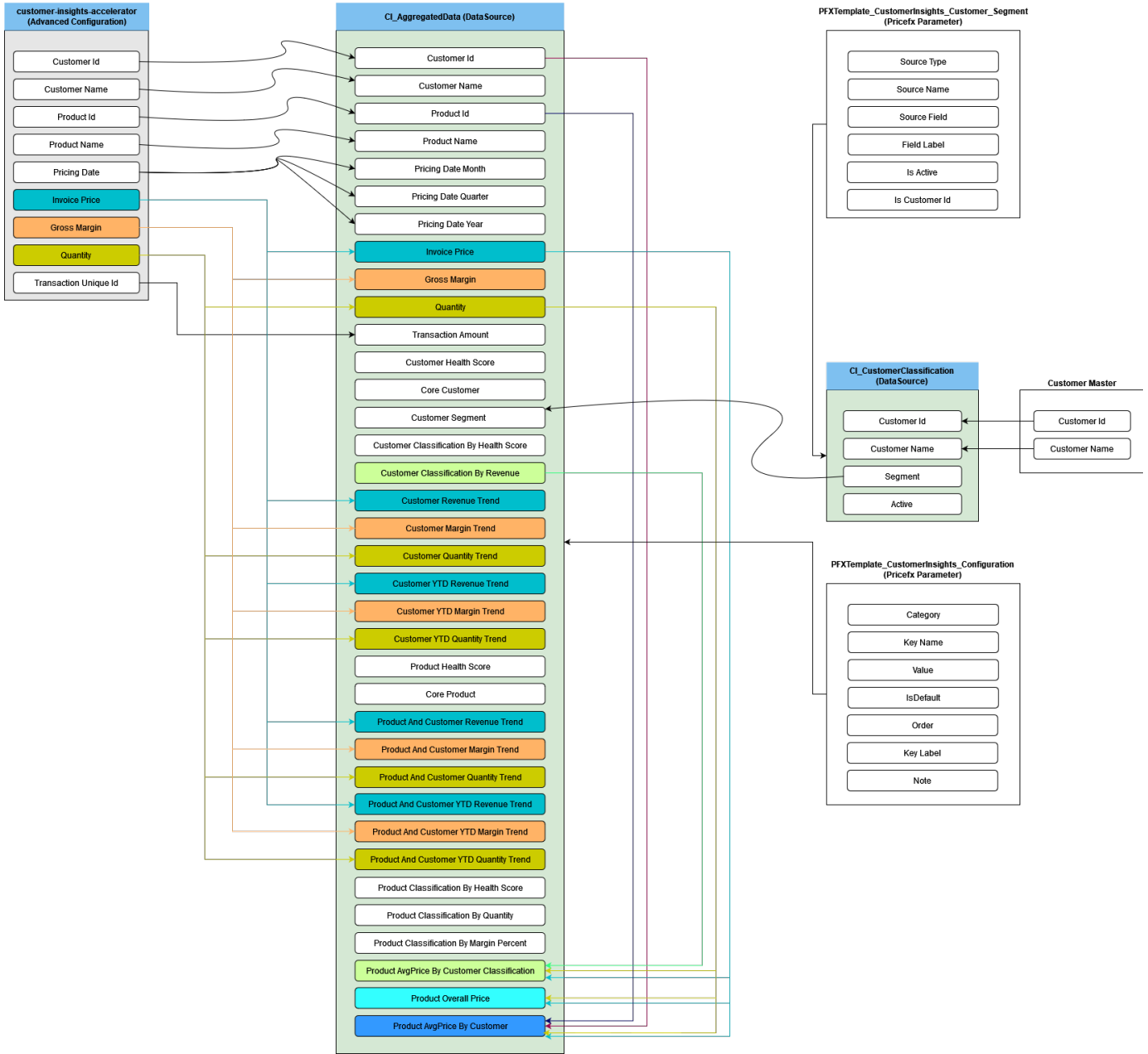
In Customer Insights Accelerator, we use Data Load to aggregate Datamart data by customer, product and pricing month and we store it in the Data Source AggregatedData. It helps improve the dashboard performance because:

- The system queries data in a smaller data set.
- Some data need to be pre-processed before showing on dashboards as trend values, product and customer classification etc.

Note: There are some charts and portlets whose data are queried from the Datamart directly, not from AggregatedData Data Source, such as:

- Customer Global View Dashboard: Customer Summary portlet
- Customer Detail View: Customer Summary Portlet, Waterfall chart

Aggregated Data





PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is revenue/margin score

Category	Key Name	Value	Order
SCORE_CLASSIFICATION	100	0.25	1
SCORE_CLASSIFICATION	75	0.15	2
SCORE_CLASSIFICATION	60	0.5	3
SCORE_CLASSIFICATION	50	-0.5	4
SCORE_CLASSIFICATION	40	-0.15	5
SCORE_CLASSIFICATION	25	-0.25	6
SCORE_CLASSIFICATION	0	-10	7

PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is weighted factor

Category	Key Name	Value	Order
CONFIGURATION	REVENUE_WEIGHT	0.5	
CONFIGURATION	MARGIN_WEIGHT	0.5	

PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is cumulative revenue contribution of each product

Category	Key Name	Value	Order	Key Label
CONFIGURATION	PRODUCT_CORE	0.8		

PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is customer health score

Category	Key Name	Value	Order	Key Label
CUSTOMER_CLASSIFICATION_HEALTH_SCORE	EXCELLENT	75	1	Excellent
CUSTOMER_CLASSIFICATION_HEALTH_SCORE	GOOD	50	2	Good
CUSTOMER_CLASSIFICATION_HEALTH_SCORE	NORMAL	25	3	Normal
CUSTOMER_CLASSIFICATION_HEALTH_SCORE	PROBLEMATIC	0	4	Problematic

PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is cumulative revenue contribution of each customer

Category	Key Name	Value	Order	Key Label
CONFIGURATION	CUSTOMER_CORE	0.8		

PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is cumulative revenue contribution of each customer

Category	Key Name	Value	Order	Key Label
CUSTOMER_CLASSIFICATION_REVENUE	A	20	1	A
CUSTOMER_CLASSIFICATION_REVENUE	B	50	2	B
CUSTOMER_CLASSIFICATION_REVENUE	C	80	3	C
CUSTOMER_CLASSIFICATION_REVENUE	D	100	4	D

PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is product health score

Category	Key Name	Value	Order	Key Label
PRODUCT_CLASSIFICATION_HEALTH_SCORE	EXCELLENT	75	1	Excellent
PRODUCT_CLASSIFICATION_HEALTH_SCORE	GOOD	50	2	Good
PRODUCT_CLASSIFICATION_HEALTH_SCORE	NORMAL	25	3	Normal
PRODUCT_CLASSIFICATION_HEALTH_SCORE	PROBLEMATIC	0	4	Problematic

PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is cumulative volume contribution of each product

Category	Key Name	Value	Order	Key Label
PRODUCT_CLASSIFICATION_QUANTITY	VERY_HIGH	10	1	Very High
PRODUCT_CLASSIFICATION_QUANTITY	HIGH	20	2	High
PRODUCT_CLASSIFICATION_QUANTITY	NORMAL	75	3	Normal
PRODUCT_CLASSIFICATION_QUANTITY	LOW	100	4	Low

PFXTemplate_CustomerInsights_Configuration (Pricefx Parameter)
Value is Margin Percent

Category	Key Name	Value	Order	Key Label
PRODUCT_CLASSIFICATION_MARGIN_PERCENT	SPECIALITY	30	1	Speciality
PRODUCT_CLASSIFICATION_MARGIN_PERCENT	COMMODITY	0	2	Commodity

Excellent: Value >= 75
Good: Value >= 50
Normal: Value >= 25
Problematic: Value < 25

Y: Value >=80%
N: Value <80%

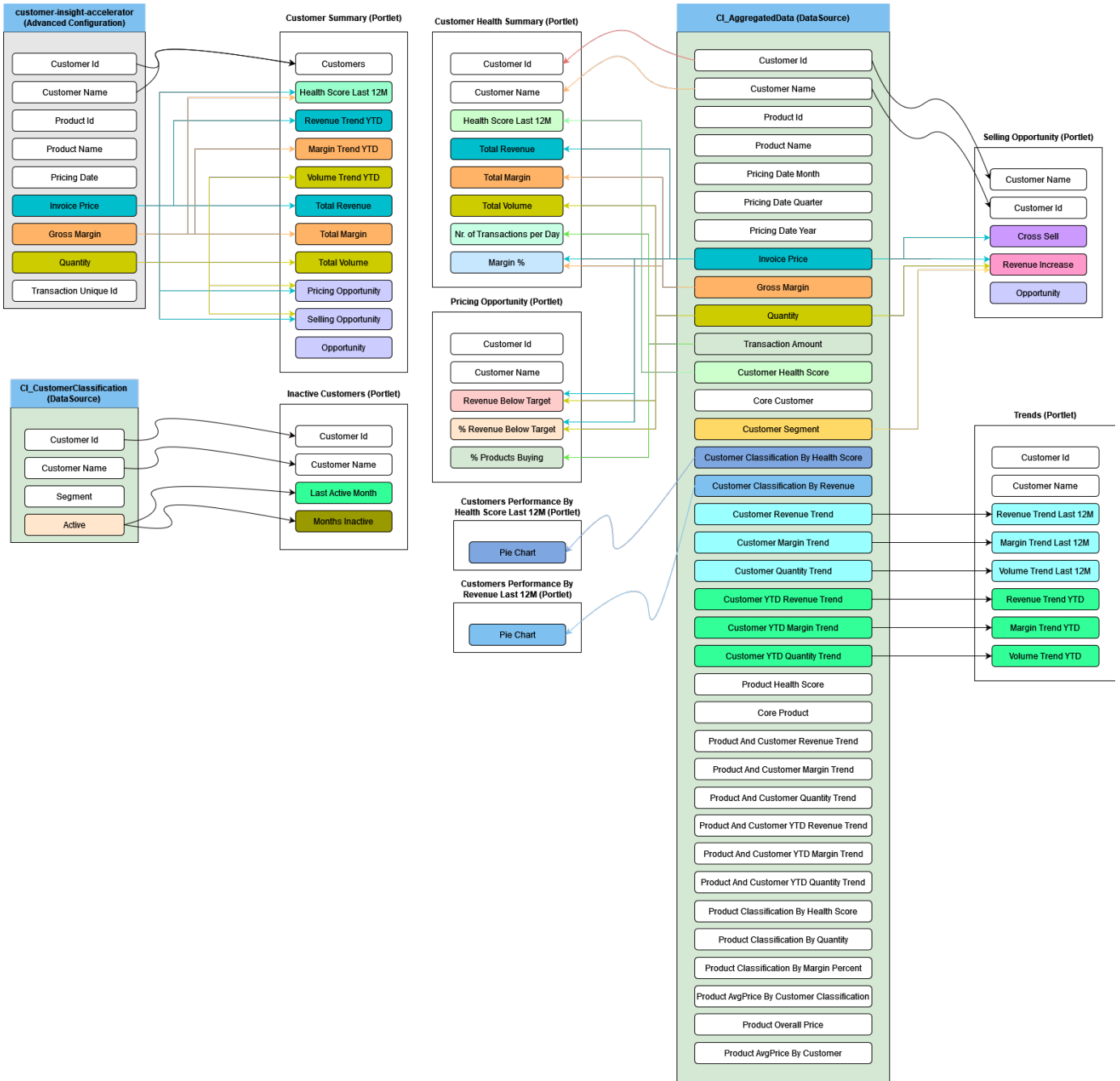
A: Value <= 20%
B: Value <= 50%
C: Value <= 80%
D: Value <= 100%

Excellent: Value >= 75
Good: Value >= 50
Normal: Value >= 25
Problematic: Value < 25

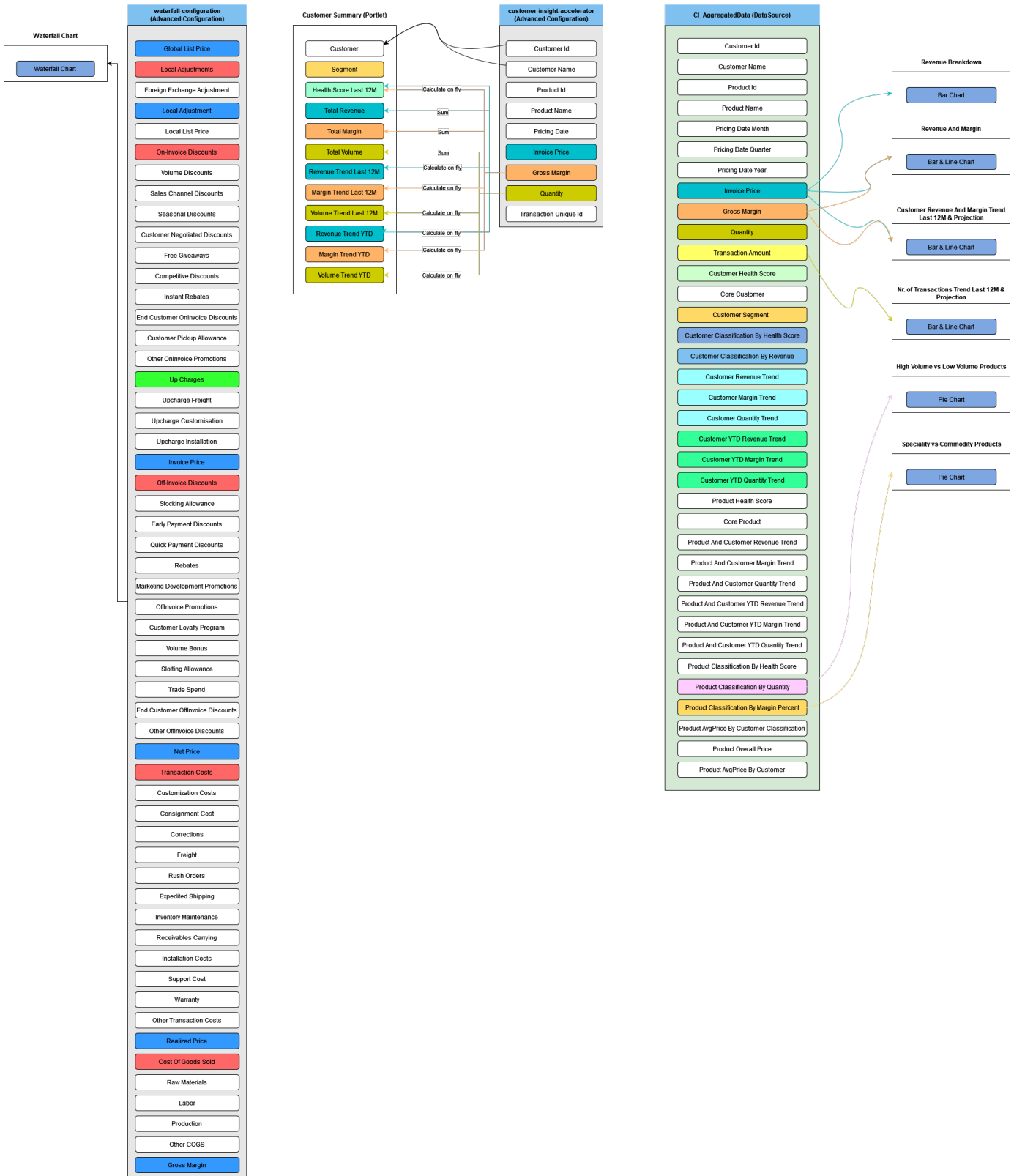
Very High: Value <=10%
High: Value <=20%
Normal: Value <=75%
Low: Value > 75%

Speciality: Value >=30%
Commodity: Value < 30%

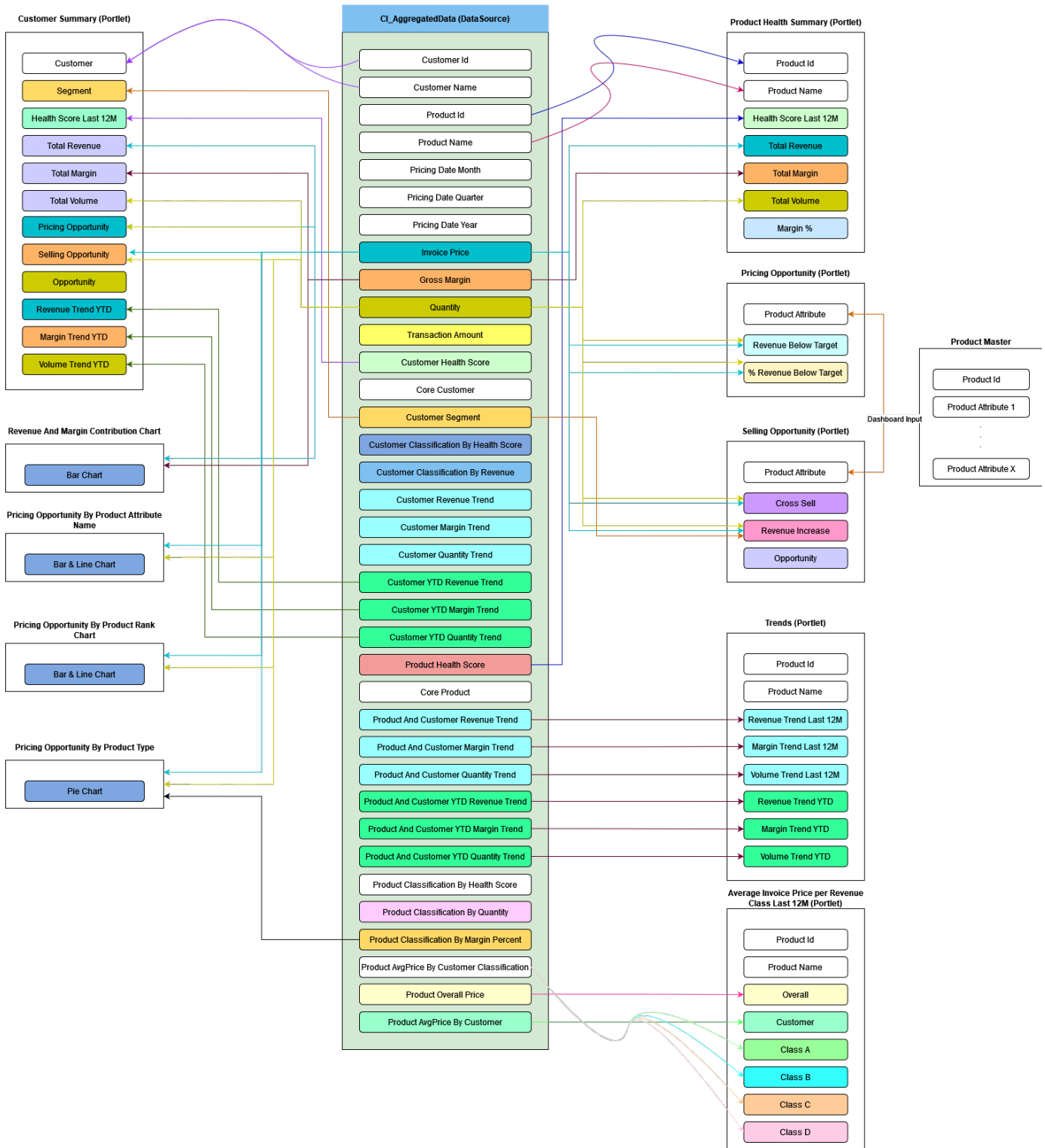
Customer Global View Dashboard



Customer Detail View Dashboard




Customer Product Portfolio Dashboard



Glossary (Customer Insights)

This glossary summarizes various terms used in Customer Insights Accelerator.

Term	Description
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<p>Customer Health Score Product Health Score</p>	<p>Calculated based on the fields Revenue Trend Last 12 months and Margin Trend Last 12 months.</p> <p>The Revenue Health Score and Margin Health Score are set according to the Revenue and Margin monthly or quarterly change (trend) in the last 12 months (the maximum value is 100, the minimum value is 0) and to this classification:</p> <div data-bbox="334 369 834 869" style="border: 1px solid #ccc; padding: 10px; text-align: center;">  <p>HealthScore_classification.xlsx</p> </div> <p><i>Example:</i></p> <p>Revenue Trend Last 12M = -19.23% => Revenue score = 25 Margin Trend Last 12M = -18.84% => Margin score = 25</p> <p>Health Score = Revenue Score * Revenue Weight + Margin Score * Margin Weight</p> <p>The weight value can be set (in the configuration in Price Parameters) between 0 and 1 for each (the default value is 0.5 for each); the summary of these two has to be equal to 1 (e.g. Revenue Weight = 0,5, Margin Weight = 0,5 => 0,5 + 0,5 = 1).</p>
<p>Customer Classification by Revenue</p>	<p>This category should be calculated based on last 12 months.</p> <p>Calculation:</p> <ul style="list-style-type: none"> • Get sorted (Descending) sum of revenue per customer. • Calculate contribution value of each customer = $\frac{\sum \text{Revenue of customer}}{\sum \text{Revenue of all customers}}$ • Calculate cumulative revenue contribution per customer. • Assigns Customers into different classes based on cumulative revenue contribution for the last 12 months: <p>A ≤ 20% B ≤ 50% C ≤ 95% D rest</p> <p>The thresholds are configurable.</p> <p>Example:</p>

A	B	C	D	E
Customer Id	Invoice Price (SUM)	Contribution	Cumulative	Class by revenue
CD-00016	523,655	16.92%	16.92%	A
CD-00007	522,656	16.89%	33.81%	B
CD-00026	512,354	16.56%	=D3+C4	C
CD-00020	512,179	16.55%	66.92%	C
CD-00019	512,147	16.55%	83.46%	C
CD-00015	511,736	16.54%	100.00%	D

Product Classification by Volume

This category should be calculated based on last 12 months.

Calculation:

- Get sorted (Descending) sum of volume per product
- Calculate **contribution** value per product= \sum Volume per product / \sum Volume per all products
- Calculate **cumulative** volume contribution per product.
Assigns Products into different classes based on cumulative volume contribution for the last 12 months:

Very High Volume \leq 10%

High Volume \leq 20%

Normal Volume \leq 75%

Low Volume rest

The thresholds are configurable.

Example:

Customer Id	Volume (SUM)	Contribution	Cumulative	Class by Volume
CD-00016	710	19.51%	19.51%	High Volume
CD-00007	650	17.86%	=D2+C3	Normal Volume
CD-00026	600	16.48%	53.85%	Normal Volume
CD-00020	590	16.21%	70.05%	Normal Volume
CD-00019	550	15.11%	85.16%	Low Volume
CD-00015	540	14.84%	100.00%	Low Volume

Product Type

Classification whether the product belongs to Commodity or Specialty, is based on Margin % = Margin Value / Invoice Price value (Margin field depends on your mapping field.)

Commodity \leq 40%

Specialty $>$ 40%

The thresholds are configurable in the PP table.

Make sure the value = \sum Value of a product per all customers in the last 12 months (not per one customer).

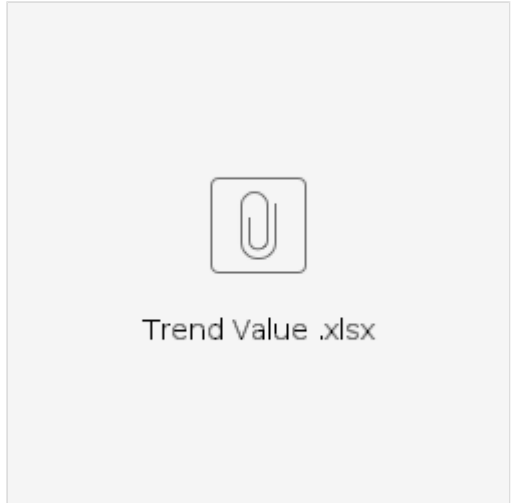
=> We will have only one record to for Commodity, Specialty products based on the data for the last 12M.

When select YTD, MTD etc., the chart will sort out products that have transactions in that period; if a product does not exist in that period of a customer, it will not count.

E.g.: We have 30 products Commodity, 70 products Specialty in the last 12M.

	<p>For customer X in YTD, only 50 products have transactions, 20 of them is Commodity, the rest is Specialty, so the chart will show this accordingly.</p>
Cross Sell Opportunity	<p>Formula = Average (Invoice) Price per Customer Segment and per period and for Products not bought by Customer</p> <p><i>Example: Segment buys Product A, Product C and Product E, Customer A bought only Product A and Product E = > cross-sell would be an average Invoice Price of Product C per Customer Segment.</i></p> <p>Customer Segment is defined in the configuration (Price Parameters) - a list of fields the segment consists of.</p>
Revenue Increase	<p>If Quantity per Product and Customer < average Quantity per Product and per Customer Segment, then:</p> <p>Formula = (average Quantity per Product and per Customer Segment - Quantity per Product and Customer) * average Price per Product and Customer</p> <p>If Quantity per Product and Customer > average Quantity per Product and per Customer Segment, then:</p> <p>Formula: Revenue Increase = 0</p> <p><i>Example: Customer Segment buys Product A in Average 500 quantity and Customer bought 350 quantity, then Revenue Increase = (500 - 350) * average Price per Customer. If Customer bought more than 500 quantity, then Revenue Increase = 0.</i></p> <p>Customer Segment is defined in the configuration (Price Parameters) - a list of fields the segment consists of.</p>
Selling Opportunity	<p>= Cross Sell Opportunity + Revenue Increase</p>
% Products buying	<p>Formula = Number of Products buying in this period of a customer / Total of Products traded in this period * 100</p> <p><i>Example: With YTD, total 200 products are traded. Among of them, customer A buys 50 products.</i></p> <p>% Products buying of customer A in YTD = 50/200 * 100 = 25 %</p>
Revenue, Margin and Volume Trend Last 12 Months	<p>First, the respective metric (revenue, margin or volume) is calculated for every single time unit.</p> <p>Customer level: time unit = month Product level: time unit = quarter</p> <p>Formula= (metric for the current time unit / metric for the previous time unit) - 1 (Periods with no data are skipped.)</p> <p>Example:</p> <ul style="list-style-type: none"> • For Customer trend L12M: only months 1, 2, 5, 7, 8, 9, 10 have some data. <p>=> Revenue or Margin or Volume trend Month 5 = (Revenue or Margin or VolumeMonth 5 / Revenue or Margin or VolumeMonth 2) - 1</p> <p>To get a trend value, calculate an average for dynamic months. In the example: 8 months. See the attachment for more information.</p>

- For Product trend L12M: only quarters 1, 2, 4 have data, so we will skip quarter 3.



Revenue, Margin and Volume Trend YTD

The YTD this year vs. YTD last year difference of Revenue, Margin, and Volume:
 Formula = (Revenue or Margin or Volume YTD value for the current year / Revenue or Margin or Volume YTD value for the last year) - 1

Number of Transactions

Total Transactions in a given period / Total days in a given period

Revenue Below Target

Average Invoice Price = Average Unit Invoice Price for the particular Product ID and particular Customer Segment
 Below Average Price = the particular Unit Invoice Price - Average Unit Invoice Price
 Revenue Below Target = if Below Average Price < 0 then Below Average Price * Quantity * (-1) else 0

% of Revenue below Target

Formula = Revenue Below Target / Revenue
 (calculated for Products with Revenue Below Target above zero)

Pricing Opportunity


= Revenue Below Target

Customer Segment

To group customers by common characteristics, the Customer Segment is defined in configuration (Company Parameters) - a list of fields the segment consists of, e.g. customer size, region, country etc.
 According to values aggregated on the Customer Segment level, certain KPIs for particular customers are calculated, e.g. cross sell.

Average Invoice Price per Customer Revenue

Product Id	Overall	Customer	Class A	Class B	Class C	Class D
MP-0019	3.89	3.19	4.65	4.51	3.44	2.97
MP-0014	3.87	2.30	4.62	4.49	3.44	2.93

<p>Class Last 12M</p>	<ul style="list-style-type: none"> • (1) = \sum Invoice Price of Product / \sum Qty of Product (per customer Last 12M) -> In Simulation, this field is called "Product Avg Price By Customer" • (2) = \sum (1) of Product Y of all customers in class A / Number of customers in class A that have product Y Do the same with class B, C , D. • (6) Overall per product = Average { (2),(3),(4),(5) }
<p>Core Customers</p>	<p>Core: Customers having cumulative revenue contribution in the last 12M \leq 80% (or by a PP) . Long tailed: The remaining Customers/Products having cumulative revenue contribution in the last 12M $>$ 80% (or by a PP).</p>
<p>Core Products</p>	<p>Core: Products having cumulative revenue contribution in the last 12M \leq 80% (or by a PP). Long tailed: The remaining Customers/Products having cumulative revenue contribution in the last 12M $>$ 80% (or by a PP).</p> <ul style="list-style-type: none"> • For Products this is calculated per Customer Segment (as per the Segment definition).
<p>Projected Nr. of Transactions, Margin and Revenue <i>(for the next 3 months)</i></p>	<p>Projected measure for the next 3 months (calculated as adjusted linear trend based on the first 3 months of the period). Calculation:</p> <ul style="list-style-type: none"> • Projected measure for the particular month = linear trend for the particular month * Seasonality Adjustment <ul style="list-style-type: none"> • Seasonality Adjustment = (measure for the (particular month - 12 months)) / Average of the value for the last 12 months) • If the projected value is negative, then we return 0 instead. <p><i>measure = Number of Transactions, Margin or Revenue</i></p> <p>Example of Revenue projection calculation:</p> <div data-bbox="332 1241 834 1745" style="border: 1px solid #ccc; padding: 10px; text-align: center;">  <p>CI_Revenue_Proj...on_example.xlsx</p> </div>

Release Notes (Customer Insights)

- [Customer Insights Dashboard 1.7](#)
- [Customer Insights Dashboard 1.6](#)
- [Customer Insights Dashboard 1.5](#)
- [Customer Insights Dashboard 1.4](#)
- [Customer Insights Dashboard 1.3](#)
- [Customer Insights Dashboard 1.2](#)
- [Customer Insights Dashboard 1.1](#)
- [Customer Insights Dashboard 1.0](#)

Customer Insights Dashboard 1.7

Upgrade Notes

New Company Parameter Table

This table allows users to configure Quote Type mapping for each portlet of the dashboards. When you select multiple products and click the “Create Quote” button in the dashboard, a new Quote with the corresponding Quote Type mapping will be created.

- Name: CI_QuoteType_Mapping
- Type: Matrix
- Value Type: Matrix 2
- Default data:

<input type="checkbox"/> Dashboard Name	Portlet Name	Quote Type
<input type="text" value="Select Value"/>	<input type="text" value="Select Value"/>	<input type="text" value="Search..."/>
<input type="checkbox"/> CustomerInsights_CustomerProductsPortfolio	Trends	__DEFAULT__
<input type="checkbox"/> CustomerInsights_CustomerProductsPortfolio	Pricing Opportunity	__DEFAULT__
<input type="checkbox"/> CustomerInsights_CustomerProductsPortfolio	Selling Opportunity	__DEFAULT__

Manual Update of Logics

These logics should be added or updated:

CustomerInsights	Update
CustomerInsights_ProductPortfolio	Update
CustomerInsights_QuotingCreation	Add

New Features and Improvements

Description	ID
It is possible to create a new Quote directly from the dashboard , using products selected in the dashboard.	PFPCS-5913

Customer Insights Dashboard 1.7.1

Bugs







[PFPCS-6624](#) Update CI deployment script to fix issue: removing Customer/Product data

Customer Insights Dashboard 1.7.2

This document summarizes major improvements and fixes introduced in the Accelerate Customer Insights release version.

Version	1.7.2
Release Date	Apr 5, 2023

Improvements

Description	ID																				
To allow for safe and convenient upgrades to the latest version, there is now "Customer Insights Package - Upgrade" package available.	PFPCS-6602																				
Documentation has been improved based on customer feedback.	PFPCS-6628																				
In the Detail view, "Product Base" filter is not passed after clicking "View Customer Products Portfolio".	PFPCS-6643																				
Validation YTD value has been adjusted: <table border="1"><thead><tr><th>Revenue or Margin or Volume YTD value for the current year</th><th>Revenue or Margin or Volume YTD value for the last year</th><th>Current result</th><th>Expected result</th></tr></thead><tbody><tr><td>Null or 0</td><td>(any value)</td><td>0%</td><td>-100%</td></tr><tr><td><0</td><td>Null or 0</td><td>100%</td><td>-100%</td></tr><tr><td>>0</td><td>Null or 0</td><td>100%</td><td>100% </td></tr><tr><td>=0</td><td>Null or 0</td><td>0%</td><td>0% </td></tr></tbody></table>	Revenue or Margin or Volume YTD value for the current year	Revenue or Margin or Volume YTD value for the last year	Current result	Expected result	Null or 0	(any value)	0%	-100%	<0	Null or 0	100%	-100%	>0	Null or 0	100%	100% 	=0	Null or 0	0%	0% 	PFPCS-6645
Revenue or Margin or Volume YTD value for the current year	Revenue or Margin or Volume YTD value for the last year	Current result	Expected result																		
Null or 0	(any value)	0%	-100%																		
<0	Null or 0	100%	-100%																		
>0	Null or 0	100%	100% 																		
=0	Null or 0	0%	0% 																		

Customer Insights Dashboard 1.7.3

This document summarizes major improvements and fixes introduced in the Accelerate Customer Insights Dashboard release version.

Version	1.7.3
Release Date	May 22, 2023

Improvements

Description	ID
Increase all dashboard logic elements timeouts to 300.	PFPCS-6806

Bugs

Description	ID
Fix performance of Product Portfolio dashboard when loading.	PFPCS-6797

Customer Insights Dashboard 1.6

- [Incompatibility with 1.5.0](#)
- [Upgrade Notes](#)
- [Bugs](#)
- [Change Requests](#)
- [Sub-tasks](#)
- [Tasks](#)

Incompatibility with 1.5.0

Due to changes in [PFPCS-5933](#) the Simulation object created in 1.5.0 will not be supported in this version. The main functionality is kept unchanged.

Upgrade Notes

Due to [PFPCS-5933](#) there are several changes that need to happen during upgrade from 1.5.0 to 1.6.0. The changes are:

Note: Objects contents are available here:



- Add:
 - Data Source:
 - CI_AggregatedData

- Logics:
 - CustomerInsights_DL_Aggregation (Data Load logic)
 - Data Load:
 - DMDS.CI_AggregatedData
- Update:
 - Content of Advanced Configuration named "customer-insights-accelerator"
 - Logics:
 - CustomerInsights (Groovy library)
 - CustomerInsights_CF_Sequencer (CF logic)
 - CustomerInsights_DS_CustomerClassification (Data Load logic)
 - CustomerInsights_GlobalView (dashboard logic)
 - CustomerInsights_CustomerDetails (dashboard logic)
 - CustomerInsights_CustomerProductPortfolio (dashboard logic)
- Remove:
 - Simulation: CustomerInsights
 - Logic: CustomerInsights_Aggregation_Sim

Bugs

[PFPCS-6308](#) Detail view: Customer summary portlet: displaying incorrectly

[PFPCS-6294](#) Error when select filters of class

[PFPCS-6274](#) Fix performance issue for Customer Product Portfolio dashboard

[PFPCS-6254](#) Wrong field name of Data Source CI_AggregatedData

Change Requests

[PFPCS-5933](#) Replace Simulation with another data source

Sub-tasks

[PFPCS-6313](#) [Detail Dashboard] refactor api.local.xxx using to pass value to elements

[PFPCS-6269](#) [Customer Product Portfolio] Update logics to make dashboard Customer Product Portfolio work with new data source

[PFPCS-6268](#) [Customer Detail] Update logics to make dashboard Customer Detail View work with new data source

[PFPCS-6184](#) Change/Update Calculation Flow to work with new Data Source

[PFPCS-6183](#) [Customer Global] Update logic to make dashboard Customer Global work with new data source

[PFPCS-6182](#) Update package-definition

[PFPCS-6181](#) Update Simulation logic to data load logic

[PFPCS-6138](#) Investigate Solution Change Simulation to Data Source using Data Load logic

[PFPCS-4564](#) [Portfolio Dashboard] refactor api.local.xxx using to pass value to elements

[PFPCS-4563](#) [Global View Dashboard] refactor api.local.xxx using to pass value to elements

Tasks

[PFPCS-6271](#) Update logic CustomerInsights_DimensionFilter_Configurator based on new structure of Configuration

[PFPCS-6265](#) Update DS Customer Classification logic to match with new structure Configuration

[PFPCS-6251](#) Update structure of Configuration

[PFPCS-4560](#) [Dashboard] refactor api.local.xxx using to pass value to elements

Customer Insights Dashboard 1.6.1

Bugs

[PFPCS-6327](#) Data Load sometimes fails with errors. Use the `api.getDatamartContext().streamQuery(batchQuery)` function instead of the `api.getDatamartContext().consumeData()`.

Customer Insights Dashboard 1.5

- [Bugs](#)
- [Improvements](#)
- [Stories](#)
- [Sub-tasks](#)
- [Tasks](#)

Bugs

[PFPCS-5128](#) Portfolio: Customer Summary portlet: Opportunity value sum all regardless Product Rank = Top/Worst

[PFPCS-5107](#) Portfolio: Some portlets not show full list products when size list < Product rank bucket

[PFPCS-4963](#) Portfolio: Selling Opportunity: fields order change per filter values

[PFPCS-4811](#) [Customer Product Portfolio] - Missing product when Product Rank = Top

[PFPCS-4809](#) [Portfolio]: Pricing Opportunity By Product Type Chart: not count Top/Worst list

[PFPCS-4379](#) Trend L12M & Projection chart: missing two bars

[PFPCS-4373](#) Inactive Customers portlet: still show customers which have transactions in time period

[PFPCS-4310](#) Tooltips display incorrectly in some charts

[PFPCS-4272](#) Portfolio: Customer Summary: Opportunity value always sum "all" regardless product rank selection

[PFPCS-4266](#) [Portfolio Dashboard] Wrong data on Pricing Opportunity By Product Rank chart

[PFPCS-4231](#) Portfolio: Opportunity values, Revenue Below target are incorrect when select Product Class /Health Score

[PFPCS-4230](#) Global View: Opportunity values, Revenue Below target are incorrect when select customer Class/Health Score

[PFPCS-4216](#) [Portfolio Dashboard] Wrong Pricing/Selling Opportunities on Customer Summary Portlet

Improvements

[PFPCS-5373](#) Customer Product Portfolio View: Pricing Opportunity By Product Type Chart and Pricing Opportunity By Product Attribute Chart - Update tooltip label

[PFPCS-5372](#) Customer Product Portfolio View: Update tooltip label

[PFPCS-5183](#) Detail View: add total volume into High Volume vs Low Volume Products portlet hint

[PFPCS-4743](#) Detail View: Allow to override the mapped parameters with filters

[PFPCS-4493](#) Allow drill-down in pie charts

[PFPCS-4492](#) Allow columns sorting for all tables

[PFPCS-4375](#) Update CustomerInsights.GlobalViewDashboardParameter and Global View Dashboard logic

[PFPCS-4374](#) Update CustomerInsights.CommonDashboardParamater

[PFPCS-4198](#) Dashboards order in label

Stories

[PFPCS-5523](#) Add detailedDescription to steps.json mentioning that deploying SIP is mandatory

[PFPCS-5442](#) Data tab in chart-based portlets

[PFPCS-5427](#) Mixpanel tracking for CIP - dashboard view

[PFPCS-4119](#) Core Customers/Products

[PFPCS-4118](#) Inactive Customers

[PFPCS-4117](#) Only Top, Worst or all the Customer/Products are displayed in dashboards

Sub-tasks

[PFPCS-4566](#) Move duplicated functions for drilldown chart in 3 dashboard to Common in library

[PFPCS-4557](#) [Global View] Allow drill-down in pie charts

[PFPCS-4555](#) [Product Portfolio] Allow drill-down in pie charts

[PFPCS-4214](#) Add new inputs on Customer Product Portfolio View dashboards

[PFPCS-4213](#) Add new inputs on Customer Detail View dashboards

[PFPCS-4212](#) Add new inputs on Customer Global View dashboards

[PFPCS-4211](#) Add new process for Customer Core in Simulation

[PFPCS-4210](#) Add new process for Product Core in Simulation

[PFPCS-4124](#) Add new inputs on Customer Products Portfolio dashboards

[PFPCS-4123](#) Add new inputs on Customer Global View dashboard

[PFPCS-4122](#) Change Top/Worst Customers and Top/Worst Products

Tasks

[PFPCS-5617](#) Update Element Doc and Method docs for dashboard logics

[PFPCS-5606](#) Hide warnings for all the portlets

[PFPCS-5432](#) Detail View, Portfolio: Customer Input mandatory

PFPCS-5431 Deployment step: Add the text noting the importance of having SIP deployed first
PFPCS-5377 Should remove date string in logic folder name
PFPCS-5206 Update document about new object in CID as: Datasource "CI Customer Insight" and CF
PFPCS-4960 Global View: Pricing Opportunity - incorrect KPI label
PFPCS-4607 Update return structure function of CustomerSegmentUtils.getCustomerSegment()
PFPCS-4599 [Global View Dashboard] Update Inactive Customers Portlet
PFPCS-4598 Add CF logic to handle dataload and simulation schedule
PFPCS-4585 CI_CustomerClassification DS
PFPCS-4569 Update Map keys in CustomerInsight.Configuration to camelCase
PFPCS-4275 [CID] Logic to get Top and Worst list with bucket to show on tables
PFPCS-4199 Reformat all code

Customer Insights Dashboard 1.5.1

Bugs

PFPCS-5718 Address the division-by-zero cases in logic

Customer Insights Dashboard 1.4

Improvements

PFPCS-3693 Add DISTINCT into SQL
PFPCS-3674 Mapped Customer parameter for Detail View
PFPCS-3669 Detail View > Revenue and Margin > No-data indication
PFPCS-3656 Summary portlets - no data indication
PFPCS-3655 Detail View - Waterfall - no-data indication
PFPCS-3628 Update Get currency of Datamart
PFPCS-3530 Customer segment PP - more effective default setting
PFPCS-3525 Update deployment script for customer insight
PFPCS-3474 Dashboards labels adjustment
PFPCS-3404 Detail View - Revenue Breakdown - no-data indication
PFPCS-3403 Create some wrapper for SummaryPortletUtils.initTableItem()
PFPCS-3350 [Simulation] Update some elements to improve performance
PFPCS-3348 [Simulation] Update cache in some elements and function to improve performance
PFPCS-3337 [Simulation] Update SQL for Customer Classification by Revenue and Product Classification by Volume

[PFPCS-3322](#) [Simulation] Update element GetProductAvgPriceByCustomer And ProductAvgPriceByCustomer

[PFPCS-3300](#) Multiple sources for Customer segment

[PFPCS-3298](#) [CID] add into Simulation more field ProductClassificationByHealthScore.

[PFPCS-3238](#) Charts > Add 1000 separator to displayed number

[PFPCS-3203](#) Product Portfolio - Health Score filter

[PFPCS-3202](#) Detail View - Health Score filter

[PFPCS-3199](#) Global View - Health Score

[PFPCS-3198](#) Product Portfolio - Product Class filter

[PFPCS-3197](#) Detail View - Product Class filter

[PFPCS-3196](#) Global View - Customer Class filter

Tasks

[PFPCS-3489](#) [Simulation] Update parameter structure based on solution as dashboard

[PFPCS-3438](#) Detail View - Update waterfall chart in CID because SIP_Dashboards_commons had been changed

[PFPCS-3410](#) [CID] typo in the element name "CustomerProductPortfolioDashboardUtils"

[PFPCS-3355](#) Split Calculation element in CustomerInsights library into 3 sub-elements

[PFPCS-3338](#) Detail View > Pass values in new filters to Portfolio dashboard

[PFPCS-3280](#) [Customer Detail View] Check changes in SIP_Dashboards_commons and update for CID [PFPCS-3256](#) Check whether it's possible to move certain calculations to SQL

[PFPCS-3177](#) The InputParams solution: new structure

[PFPCS-3053](#) Redesign Customer Segment PP Table

Bugs

[PFPCS-3699](#) Detail View > Waterfall chart display value when no data

[PFPCS-3386](#) Total number values in tables should be integer

Customer Insights Dashboard 1.4.5

Bugs

[PFPCS-4284](#) [Simulation] wrong calculation of YTD Trends

Customer Insights Dashboard 1.3

Bugs

- [\[PFPCS-3003\]](#) - Hotfix- Portfolio_ Average invoice price table
- [\[PFPCS-3086\]](#) - [Detail View]> Chart > Nr. of Transaction trend last 12M& projection: Number of transactions is incorrect

- [PFPCS-3137] - [Detail View] > Customer Summary > Remove "YTD" in Total revenue/margin/volume
- [PFPCS-3140] - [Portfolio] > Chart > Pricing Opportunity by Product Type > Tooltip > Not show % value
- [PFPCS-3142] - [Detail View] > Waterfall > Not show data like SIP
- [PFPCS-3157] - [Portfolio] > Table: Selling Opportunity > Column: Opportunity > Not show value
- [PFPCS-3172] - [Customer Product Portfolio] Error in Tooltip of Revenue And Margin Contribution chart
- [PFPCS-3213] - Detail View > Customer Summary > Segment does not display
- [PFPCS-3232] - Global View > Pie charts > Avg. Margin % is incorrect

Tasks

- [PFPCS-3013] - Update document for new version 1.3
- [PFPCS-3059] - Create generator for process of table
- [PFPCS-3077] - Group some constants in library
- [PFPCS-3094] - [CID] Remove some unused variables and methods
- [PFPCS-3096] - [Product Portfolio] > Tables: Selling Opportunity & Pricing Opportunity > Show top products
- [PFPCS-3104] - [CID] Rename function DataTable.setTopWorstData to DataTable.setData
- [PFPCS-3124] - [Customer Global View] update URL in CustomerSummary portlet get from constant
- [PFPCS-3126] - [CID] move some string to Constant
- [PFPCS-3127] - [CID] Update some variable names
- [PFPCS-3193] - [CID] add "setup Simulation" step into deployment Script
- [PFPCS-3201] - Add Unity preferences from QA to package
- [PFPCS-3225] - [Customer Global View] Change color setting from Constant of SIP to Dashboard of CID

Improvements

- [PFPCS-2769] - Refactor code base on Code review
- [PFPCS-2876] - [Customer Detail View] Data of Waterfall chart should be queried from DM, not query from Simulation
- [PFPCS-2878] - Update currency code and symbol in Chart
- [PFPCS-3012] - [Customer Product Portfolio] Update/refactor chart "Revenue And Margin Contribution"
- [PFPCS-3215] - Detail View, Portfolio > Customer Summary > Remove "s" in label "Customers"

Stories

- [PFPCS-3006] - Consistency for values in Average Invoice Price table

Customer Insights Dashboard 1.2

New Features

- [PFPCS-2766] - [Customer Global View] Add more Customer Summary portlet
- [PFPCS-2767] - [Customer Product Portfolio] Add Customer Summary portlet

Improvement

- [PFPCS-2930] - [Customer Detail View] Change the summary portlet

Bugs

- [PFPCS-2908] - [Detail View_Summary] Category row should be hidden if no value selected
- [PFPCS-2912] - [Customer Summary portlet]_Trend symbol is incorrect

- [PFPCS-2972] - [Customer Product Portfolio] Total Revenue/Margin/Volume in Summary portlet should be calculated based on time filter

Customer Insights Dashboard 1.1

Bugs

- [PFPCS-2722] - [Chart Pricing Opportunity by Product Attribute]_No spacing between words
- [PFPCS-2729] - Trend L12M is inaccurately for those products that data exists in just one quarter
- [PFPCS-2744] - [CID] Hotfix Preferences for Customer Insights Dashboards on Unity mode

Tasks

- [PFPCS-2564] - Write document for CIDs Introduction
- [PFPCS-2742] - [CID] Do release activities for version 1.1.0

Improvements

- [PFPCS-2568] - Customer Summary _Not display null/zero when no data exist
- [PFPCS-2569] - Update list value in Category in dashboard input
- [PFPCS-2574] - Support change label of some params configured in PP
- [PFPCS-2590] - Rename column "Field Name" in PP
"PFXTemplate_CustomerInsights_Customer_Segment" to "Source Field"
- [PFPCS-2610] - Customer Summary portlet_ Little updates
- [PFPCS-2634] - [Customer Global View] add click-through from the Trends table
- [PFPCS-2643] - Update: using sourceField to match data between Product master and Product datasource
- [PFPCS-2652] - Update some points in charts and table
- [PFPCS-2656] - Update The Health Score calculation
- [PFPCS-2689] - [Simulation] Support multi order type of classification ranges
- [PFPCS-2708] - [dashboard] Using constants defined in library
- [PFPCS-2709] - [Customer Detail View] Should round before pass value to function api.formatNumber
- [PFPCS-2713] - [Customer Product Portfolio] Product Attribute should show label Translations
- [PFPCS-2715] - Should use key label in configuration PP to show in KPI dropdown list
- [PFPCS-2716] - Should use key label in configuration PP to show in Timefilter dropdown list
- [PFPCS-2726] - CID update default Preferences for dashboards

Customer Insights Dashboard 1.0

New Features

- [PFPCS-1717] - Potential by Product Attribute
- [PFPCS-2328] - Open a new dashboard in a new web browser tab
- [PFPCS-2400] - [Customer Product Portfolio]_Adding Product Health Score
- [PFPCS-2402] - [Customer Product Portfolio]_ new table: Cross-Sell and Up-Sell Opportunity
- [PFPCS-2445] - [Customer Global View]_ new table: Cross-Sell and Up-Sell Opportunity

Stories

- [PFPCS-16] - Customer Insight Dashboard
- [PFPCS-419] - Aggregated Datamart for YTD data

- [PFPCS-689] - Documentation - Aggregated Datamart
- [PFPCS-690] - Documentation - Dashboard Configuration
- [PFPCS-1203] - Data Pre-processing
- [PFPCS-1204] - Customer Insights - Customer Details
- [PFPCS-1306] - Update Customer Revenue And Margin Trend Last 12M & Projection chart
- [PFPCS-1370] - Customer Insights - Global View
- [PFPCS-1418] - Customer Insights - Customer Products Portfolio

Tasks

- [PFPCS-1075] - Manage Sonar bugs and code smells on Customer Insights
- [PFPCS-1113] - Update Product DM in QA partition
- [PFPCS-1117] - Update Sales standard data DS in QA partition
- [PFPCS-1718] - Trend symbols
- [PFPCS-1743] - Adjust [End date] for time filters
- [PFPCS-1812] - Upload new data in 2020
- [PFPCS-1837] - Should check null value in operator of DashboardUtils element in Customer Detail View
- [PFPCS-2030] - Create guideline how to configure Customer Insights Dashboard
- [PFPCS-2365] - Setup autopublishing for CID package
- [PFPCS-2395] - Create document for CIDs introduction
- [PFPCS-2536] - [CID] Create deployment script
- [PFPCS-2539] - [Portfolio] Pricing Opportunity by Worst Products should be hidden by default
- [PFPCS-2558] - Fix release package-remove gitignore

Improvements

- [PFPCS-1032] - Code Improvement from Sonar
- [PFPCS-1067] - Show customer Id, customer name under the title of embedded dashboard
- [PFPCS-1194] - Double bar graph in embedded charts
- [PFPCS-1432] - Rename label "FieldName" to "Dimension Filter"
- [PFPCS-1451] - Consistent Start and End Date for processing
- [PFPCS-1490] - Consistent name for portlet header and chart
- [PFPCS-1509] - Change configuration.RevenueFieldName to configuration.InvoicePriceFieldName
- [PFPCS-1518] - Display percentage for trend value L12M
- [PFPCS-1526] - Move calculation for potential to Simulation logic
- [PFPCS-1527] - Update logic to get Potential for Global View dashboard
- [PFPCS-1558] - Refactor element "GetTopCustomers" of Customer Global view
- [PFPCS-1565] - Fix some sonar bugs in customer detail view dashboard
- [PFPCS-1578] - Move some common inputs to libs
- [PFPCS-1627] - Fix some sonar bugs
- [PFPCS-1633] - Adding Unknown field to Cross Selling Opportunity table (Portfolio)
- [PFPCS-1683] - Classes into Data Filter (Category)
- [PFPCS-1726] - Product attributes input should get dimension attributes
- [PFPCS-1727] - Rename "Buying Frequency" to "Number of transactions" in all dashboard
- [PFPCS-1731] - Should set sortBy and list of attributes in function api.stream
- [PFPCS-1805] - Formatting label
- [PFPCS-1811] - Update waterfall chart structure from AP setting
- [PFPCS-1842] - Tooltips improvement - Revenue and margin trends & projections chart
- [PFPCS-1847] - Change solution from memoryDB to non-memoryDB
- [PFPCS-1907] - Correct value on Opportunity table of Portfolio dashboard
- [PFPCS-1916] - Just show max 100% in axis of chart
- [PFPCS-1917] - In Dimension filter, if change value of "Category" field, old value of "Value" field should be reset to null/empty

- [PFPCS-1979] - Hiding 0 value in table Potential by Product Attribute
- [PFPCS-1992] - Change arrow to fix problem on Unity and visible dashboard input items in portlet selection
- [PFPCS-2019] - Remove items as: ROWID and Scenario in Dimension Filter - Category
- [PFPCS-2020] - Show "no data" in case no customer is selected
- [PFPCS-2021] - Customer Detail View - Customer Revenue and Margin Trend & Projection - Change labels
- [PFPCS-2022] - Global View - Pricing Opportunity: Change color for top/worst group
- [PFPCS-2023] - Customer Detail View - Number Of Transaction Trend & Projection - Change labels
- [PFPCS-2025] - Set display mode is 'Never' for some elements in Simulation logic
- [PFPCS-2042] - Regression line should be a line in chart
- [PFPCS-2057] - Improve performance of simulation logic
- [PFPCS-2058] - Improve performance of customer product portfolio dashboard
- [PFPCS-2076] - Improve performance of some elements in simulation logic
- [PFPCS-2221] - Add Customer Segment to Simulation
- [PFPCS-2237] - Customer Global View: Merge other metric process to SQL (in the same with X-sell/Up-sell/RevenueBelowTarget)
- [PFPCS-2264] - Support multitype source to get customer segment
- [PFPCS-2282] - [Customer Product Portfolio] Update list value of Product attribute in Potential By Product Attribute table match with Opportunity table
- [PFPCS-2286] - [Customer Global View] Remove Sorted element
- [PFPCS-2288] - Update UI_Revenue and Margin Contribution chart
- [PFPCS-2305] - [Customer Product Portfolio] Should use api.local to pass return value in element "GetDataForPotentialPerProductAttribute"
- [PFPCS-2318] - [Customer Product Portfolio] Update logic of element GetTopAverageInvoicePriceByCustomerClassData to improve performance
- [PFPCS-2456] - [Simulation] refactor simulation logic
- [PFPCS-2500] - Change format number in charts and tables
- [PFPCS-2501] - Update label and default value of DataFilter
- [PFPCS-2502] - [Customer Global View] Pricing Opportunity and Opportunity table - Just show the WORST customers
- [PFPCS-2503] - [Customer Detail View] View some value on click-through portlet
- [PFPCS-2508] - [Customer Detail View] Update regression value in charts
- [PFPCS-2512] - [Customer Detail View] - Customer Summary portlet- Adding more info
- [PFPCS-2513] - [Portfolio] - Revenue Below Target by Product Group chart - change name to Pricing Opportunity by Product Group.
- [PFPCS-2514] - [Global View and Portfolio] - the Health tables: all the Last 12 M and YTD trends will be in removed from Health table and moved to a new table Trends.
- [PFPCS-2515] - [Simulation] Customer Segment- adding separator in between the particular items
- [PFPCS-2519] - [Portfolio] - rename "Revenue Below Target" to "Pricing Opportunity"
- [PFPCS-2528] - [Customer Detail View] - Customer Summary portlet- Adding more info
- [PFPCS-2529] - Opportunity tables in Global and Portfolio - Please rename to Selling Opportunity

Sub-tasks

- [PFPCS-672] - Embedded Waterfall Chart
- [PFPCS-681] - Embedded Breakdown Revenue Chart
- [PFPCS-682] - Embedded Revenue and Margin Chart
- [PFPCS-693] - Reporting hierarchy configurable
- [PFPCS-694] - Customer health score Calculation
- [PFPCS-695] - Buying Frequency Calculation
- [PFPCS-713] - Create TDD4C for Embedded Waterfall Chart
- [PFPCS-824] - Adding label to show the chosen Customer ID or Product Group in all Charts

- [PFPCS-887] - Cross Selling Opportunity
- [PFPCS-944] - Adding Waterfall chart with percentage value
- [PFPCS-1109] - Set up Simulation to run automatically
- [PFPCS-1136] - Adding message to the chart when no data exist
- [PFPCS-1137] - Update attribute in PP Report Hierarchy to define the element we want to disable
- [PFPCS-1154] - Comparing data between periods
- [PFPCS-1176] - Rename element and method to CustomerInsights instead of CustomerInsight
- [PFPCS-1189] - Adding Volume trend into Customer Health Score
- [PFPCS-1374] - Add Pricing Opportunity table as old DB
- [PFPCS-1375] - Apply Dashboard Library into this dashboard
- [PFPCS-1389] - Add more item in time filter 'last 12 months' to compare with 12 months before
- [PFPCS-1408] - Apply Dashboard libs to existed chart in Customer Detail View
- [PFPCS-1409] - Add Revenue Breakdown to customer Detail View
- [PFPCS-1410] - Add Waterfall Chart to customer Detail View
- [PFPCS-1411] - Add Revenue and Margin per Quarter to Customer Detail View
- [PFPCS-1421] - Add more 2 items in time filter
- [PFPCS-1422] - Add Pricing Potential table
- [PFPCS-1425] - Update logic classification for customer base on new update
- [PFPCS-1452] - Refactor code for Customer Global View based on new structure data from Pre-Process
- [PFPCS-1463] - Calculate Trend L12M based on dynamic months
- [PFPCS-1475] - Update charts based on new changes of Highchart libs
- [PFPCS-1478] - Add Cross Selling Opportunity Table
- [PFPCS-1479] - Add Average Invoice Price table
- [PFPCS-1480] - Add Potential per product type Table
- [PFPCS-1481] - Add Potential per product table
- [PFPCS-1482] - Add Bar & line chart showing Potential
- [PFPCS-1483] - Add Customer Dashboard Portfolio Dashboard Inputs
- [PFPCS-1535] - Add Pie chart showing sum of Potential and % of Total Potential per product type
- [PFPCS-1588] - Set default value for List of Product Attribute is "Product Group"
- [PFPCS-1628] - Add if statement braces
- [PFPCS-1629] - Add type for Constant in CustomerInsights.Constant
- [PFPCS-1699] - Revenue and Margin Contribution chart
- [PFPCS-1830] - Update Calculation of Customer Health Score
- [PFPCS-1831] - Update calculation of Revenue/Margin/Volume trend last 12M
- [PFPCS-1832] - Add calculation of Revenue, Margin and Volume trend YTD
- [PFPCS-1833] - Update calculation of Cross-Sell Opportunity - Global View
- [PFPCS-1834] - Update calculation of Revenue below target
- [PFPCS-1840] - Calculation for Cross-Sell Opportunity - Customer Product Portfolio
- [PFPCS-1846] - Up-sell will be part of the Cross Selling Opportunity table which will be renamed to Opportunity
- [PFPCS-1936] - Change solution from memoryDB to non-memoryDB In Simulation logic
- [PFPCS-1937] - Change solution from memoryDB to non-memoryDB In Customer Global View Dashboard
- [PFPCS-1938] - Change solution from memoryDB to non-memoryDB For Revenue Breakdown chart In Customer DetailView Dashboard
- [PFPCS-2284] - Add more CustomerId parameter for some functions
- [PFPCS-2406] - Change Revenue Below Target = Potential calculation
- [PFPCS-2407] - Change % Revenue Below Target calculation
- [PFPCS-2408] - Change Pricing Opportunity table
- [PFPCS-2416] - Add Product Health Score into Simulation

Change Requests

- [PFPCS-1685] - Top/worst sorting not working properly
- [PFPCS-1692] - Add Margin to the Customer Revenue Trend and Projection chart
- [PFPCS-1693] - Average Invoice price per the relevant customer into Average Invoice Price table
- [PFPCS-1714] - Merge Customer Health Score table with Customer Insight Summary table
- [PFPCS-1715] - Potential By Product table - new columns and rename
- [PFPCS-1778] - Calculations updates
- [PFPCS-1781] - Linear trends & projections - seasonality adjustment
- [PFPCS-2124] - Update Cross Sell calculation
- [PFPCS-2326] - [Customer Product Portfolio]- Rename Opportunity table
- [PFPCS-2327] - [Customer Product Portfolio] - Product Health Summary table - revert top/worst
- [PFPCS-2401] - Update formulas for % Revenue Below Target
- [PFPCS-2404] - [Customer Product Portfolio]_Remove some Potential portlets
- [PFPCS-2405] - [Customer Product Portfolio]_ Change Pricing Opportunity table and Revenue below target
- [PFPCS-2424] - [Customer Global View]_ Change location click through " to Product Portfolio"
- [PFPCS-2429] - [Portfolio] Change "Potential" to "Revenue Below Target" for 2 charts: "Potential Worst Products Chart" and "Potential Tops Products Chart"
- [PFPCS-2446] - [Customer Global View]_ Change Revenue below target
- [PFPCS-2447] - [Customer Global View]_ remove fields in Pricing Opportunity table
- [PFPCS-2448] - [Customer Global View]_remove table Pricing Potential

Bugs

- [PFPCS-796] - Customer Insight Summary: % Margin is not calculated exactly
- [PFPCS-806] - Error (@13) cannot get property "ProductMapCurrenttime" on null object when Time Dimension = MTD or QTD
- [PFPCS-808] - Error (@74) occurs when choosing a single Customer ID
- [PFPCS-829] - Incorrect cross-sell calculation
- [PFPCS-834] - Customer ID does not display with revenue = 0
- [PFPCS-835] - Export data in Unity UI does not keep filtering for country
- [PFPCS-865] - Buying frequency is incorrect
- [PFPCS-888] - Margin trend last 12M is incorrect
- [PFPCS-889] - Revenue trend last 12M is incorrect
- [PFPCS-901] - Missing trend arrow
- [PFPCS-902] - Error on clicking Customer ID has no data
- [PFPCS-1065] - Error (@76) for PricingOpportunityAnalyst
- [PFPCS-1066] - Error(@0) for CustomerHealthScoreAnalyst
- [PFPCS-1112] - Incorrect Product Group in Cross Selling Opportunity
- [PFPCS-1114] - Revenue and Margin % chart show wrong value and month format
- [PFPCS-1147] - Incorrect Price Opportunity
- [PFPCS-1153] - Customer Health Score does not show with an input Customer ID
- [PFPCS-1170] - Excel format is incorrect at fields have trending arrow
- [PFPCS-1181] - Error (@0) when opening the dashboard
- [PFPCS-1188] - Misspelled name in Waterfall chart
- [PFPCS-1423] - Cross Sell Opportunity is not calculated (Global View)
- [PFPCS-1440] - Counting for Customer classification (per Revenue) is incorrect
- [PFPCS-1484] - Edit chart label (Global View)
- [PFPCS-1485] - Error (@63) occurs when no data exists in Detail View
- [PFPCS-1488] - Customer (s) filter does not work (Global View)
- [PFPCS-1519] - Inconsistent name chart in Detail view

- [PFPCS-1547] - Trend charts display incorrect (Detail View)
- [PFPCS-1549] - Category filter runs incorrect (Detail View)
- [PFPCS-1570] - Incorrect calculation in Revenue Breakdown chart
- [PFPCS-1589] - Error (@621) Ambiguous method overloading (Detail View)
- [PFPCS-1594] - Local Adjustment does not show detail in waterfall chart
- [PFPCS-1607] - Error when removing default or leaving blank in Time Filter
- [PFPCS-1622] - Some fields in Cross Sell Opportunity table are incorrect (Product Portfolio)
- [PFPCS-1678] - Check Zero when calculation AvgPrice in function Classification.calculateAvgPrice
- [PFPCS-1725] - Should check null in some functions of CustomerInsights libs
- [PFPCS-1744] - Ranking is incorrect by KPI = Health Score (Global view)
- [PFPCS-1818] - Filter MTD and QTD do not work in Product Portfolio DB
- [PFPCS-1946] - [Product Portfolio]_ Product Trend YTD is incorrect when no customer selected
- [PFPCS-1998] - Global View_Customer input should not affect to calculation
- [PFPCS-2002] - Average Revenue segment should be calculated on Customer Revenue
- [PFPCS-2009] - % Product Buying_ total of traded products should be changed by Category filter
- [PFPCS-2247] - Customer Product Portfolio dashboard - chart "Revenue And Margin Contribution" show null in drilldown
- [PFPCS-2271] - Portfolio_Cross Sell only shows for products bought (not bought is not shown)
- [PFPCS-2287] - [Customer Product Portfolio] There is an error as attached picture
- [PFPCS-2439] - Health score should get decimal or rounding
- [PFPCS-2458] - [Portfolio] doesn't show "Revenue Below Target By Product Type" chart for some case
- [PFPCS-2461] - [Customer Global View] Pricing Opportunity table, if the Revenue below Target = 0 then % Revenue below Target should be 0%.
- [PFPCS-2467] - [Portfolio] Update formulas for Average Invoice Price = Average Unit Invoice Price for the particular Product ID and particular Customer Segment
- [PFPCS-2489] - [Global View]_ % Product Buying is incorrect
- [PFPCS-2492] - [Portfolio]_Top/Worst Products in chart should be ranked like Top/Worst Customers in Global View
- [PFPCS-2521] - [Detail View] _Remove "per Day" in chart for Transactions trend last 12M
- [PFPCS-2530] - Trend arrow displays incorrectly
- [PFPCS-2565] - [Detail View]_Error (@282) when no data to display