

Improve margin, speed, and quote win rate with guided selling and decisions support

As a Sales Manager,

I want to:

- Get a quick, integrated way to receive, evaluate, and respond to customer quotes that provides the right price to the customer and allows us to win the business.

so, I can:

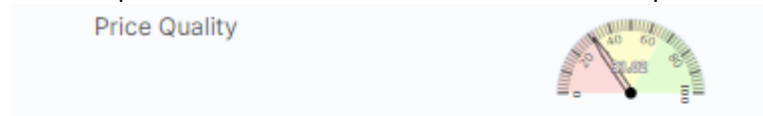
- Improve sales confidence and efficiency
- Improve quotes performance and velocity
- Improve business contribution margin

Functional Requirements

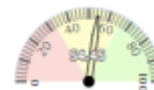
- Ability to access Quoting tool
- Ability to access a predefined quote template that holds the following components:
 - Quote header
 - Quote Line-Item
 - Import Product functionality or Product picker from the Product Catalogue
 - Access to Input parameters
 - Quantity
 - Price
 - Discount
 - Access to guidance
 - Pricing details
 - Inline analytics
 - Line-item Pricing guidance

Floor Price	4.77 \$
Target Price	5.30 \$
Stretch Price	5.83 \$

- Decisions support
- Deal performance (both line-item level and quote level)



Deal Score



- Access to Quote overview
- Access to Built-in workflow

Non-Functional Requirements

- Prerequisites Use cases:
 - Use case CHEM00
- Store approved negotiated quoted prices in a Price Records table

Reporting and Dashboards (Not included in the baseline estimate)

- Analytics from Use Case CHEM11
 - Ability to view time series history of revenue over time compared to guardrails
 - Ability to get benchmark analysis of quotes compared to recent past transactions versus guardrails
 - Ability to get revenue and margin break-even analysis
 - Ability to get context on in and out compliance deals
 - Ability to combine compliance analysis with win/loss data

Measures, Calculation and Decision-Making Key Performance Indicators

- **Floor, Target and Stretch prices:** Values or Formula to be provided by the customer
- **Deal score:** Based on Margin%, rules to be defined by the customer
- **Pricing details:** All underlying formula must be provided by the customer

Solution Design

Quote Type

We need to create a new Quote type with a Quote header logic and a Quote Line-Item Logic

Inputs for the **Quote Header** Section will be:

- Description field
- Effective Date / Expire Date
- External Reference - Optional free text field.
- User groups (Edit) - Allows the user to set which User Groups can edit the quote.
- User group (View details) - Allows the user to set which User Groups can view the quote.
- Customer picker (one or Group of multiple)

Price

Discount %

Quote Summary

Custom Header

Quote Summary
\$ 4,168.47
Quote Value
7% Below Target



Executive Approval Required
20 hours
Time to Approve



\$ 4,458.50
TARGET VALUE
\$ 290.03
SUGGESTED INCREASE
\$ 416.85
IMPACT ON COMMISSION

We need to create in the Header Logic an element with **quoteProcessor.isPostPhase()**. Then we need to generate the results and **quoteProcessor.addOrUpdateOutput** and render them.

Calculations:

Quote Summary: Sum Total invoice Price of all items

Approval Required: From a Company Parameter we get the required hours needed to approval a quote of a specific Price Range and we compare with the submit time.

Targe Value: Sum Target Price of all items multiplied with the sum of quantities.

Suggested Increase: Targe Value – Current Value (Current value = Sum of all items current value)

Quote Line-Item calculations – Results

To calculate the **Quote Line Item-Product Price/discount**, we can have a Company Parameter table to hold the discount Strategy.

For example, it can be based on the Quantity, Customer Classification or any other parameter set by customer. Additionally, we have the discount input to override the strategy if needed.

Product history

Product History	
Label	Calculation Result
Target Quantity Total	
Target Quantity Gap	

We need to create a PX table to store the forecasted value of the **Target Quantity Total**. Then from the Transactions DataMart we sum the Quantity of the transactions of that products and we calculate:

$$\text{Target Quantity Gap} = \text{Target Quantity Total} - \text{Total Quantity Sold}$$

Competitor data

To store Competitor Data we need either to use the existing table of Competition Data, which exists in the partition or if it doesn't cover our needs, we can create a new Datasource. The best way to establish this process is to receive the inbound files regularly via SFTP and create an inbound interface to map the inbound file and the table we are going to store the Data.

If there is a case that we need to also store Competitor History, we should create 2 data sources, one for current competitor Data and one for the Historical. By doing that we avoid querying a huge table when we just need to compare our price with the current Competitor Price.

Competitor information

Assuming we already store Competitor Data as described above, we can create new elements in Quote line-item logic to show the desired Analytics.

Competitor	
Label	Calculation Result
Competitor Median	0.05 \$
Top 5 Competitors	Show
Lowest Competitor Price	0.04 \$

Top 5 Competitors

Competitor Name	Price
...	...
...	...
...	...
...	...
...	...

Previous Prices

Previous Price	
Label	Calculation Result
Previous Unit Price	6.57 \$
Previous Margin %	48.96%

We need to create new elements in the Quote Line Logic for each.

Previous Unit Price: We need to show Unit Prices of the previous Deal- Quote of that Product.
Previous Margin%: We need to show Margin% of the previous Deal- Quote of that Product.

Pricing details

Pricing Detail	
Label	Calculation Result
Quantity	25
List Price	5.85
List Price Source	794
Customer Negotiated Discount	0.59 \$
Discount %	10.00%
Cash Discount %	0.00%
Suggested Price	5.27 \$
Freight Charge	0.00 \$
Warehousing Adjustment	0.12 \$
Packaging Adjustment	0.18 \$
Installation/Services/Customization Ch...	0.00 \$
Total CTS Adj.	0.29 \$
Invoice Price	5.56 \$
Rebate	0.00 \$
Buying Group Rebates	0.00 \$
Payment Term Cost	0.06 \$
Net Price	5.56 \$
Freight Cost	0.28 \$
Warehousing Cost	0.06 \$
Packaging Cost	0.30 \$
Support/Warranty Cost	0.00 \$
Installation/Services/Customization Cost	0.00 \$
Pocket Price	5.12 \$
Variable Cost	3.50
Pocket Margin	1.62 \$
Fixed Cost	0.74 \$
Margin	0.88 \$
Margin %	15.74%
Revenue	138.94 \$
Pricing Decision	
Rebate Records	Show

We need to create for each result an element in the Quote line-item logic to calculate it. Based on the data availability, the pricing details display the price breakdown meaning all price components details.

In our current case, discount details will be displayed.

Also, we expect to be provided with costs data for margin calculation purposes.

If additional price components need to be taken into consideration, data will need to be provided and corresponding fields will need to be configured as part of the Quote Line-item logic. Only straightforward lookups are part of this design and estimation.

Inline analytics - Benchmark analysis



We need to query the Transactions DM to gather all the required Data

Chart explanation

Y axis: Average invoice Price

X axis: Quantity

Direct: it shows all the transactions made to Direct customers (customer attribute)

Distributor: it shows all the transactions made to Distributors (customer attribute)

Invoice Price: current invoice price of the Quote

Target Price: it shows the current Target Price

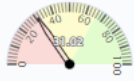
Floor Price: it shows the current Floor Price

Stretch Price: it shows the current Stretch Price

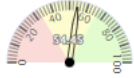
The Optimization Module to calculate **Floor Price**, **Target Price** and **Stretch Price** is not covered in this Use Case, it is covered as part of CHEM14.

Deal Performance

Price Quality



Deal Score



For **Price Quality** and **Deal Score** we need to create for each a new element in the Quote Line-item Logic with Format Type type Matrix or Charts. Then we need to create a gauge representation.

Scores can be calculated with a formula provided from the customer.
Range of the chart can be defined by customer.

Guardrails

We need to store the Data for the guardrails and for that we must create a table for the user to load the guardrails data.

There are 3 options to load the Data

1. Direct change on the Partition
2. Excel Client
3. Automated with Inbound File (additional Effort required)

Guardrails can take multiple formats. Guardrails can be defined either as an effective price or as a margin value (absolute value or percentage). If margin values are expected as guardrails, complete cost data is required for future related calculations.
However, only one format will be supported by the table at a time.

We expect 3 levels of guardrails (Floor, target and stretch)

Assumption is that the values of the guardrails will be calculated from the customer and we will just receive them in a ready to use format

Guardrails quote logic - Line-item Pricing guidance

The Quote Line-Item logic will look up the table to retrieve the Data and display them for each line of the Quote

Floor Price	4.77 \$
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Stretch Price	5.83 \$

Approval workflow

Using the Approval Workflow Package you can get full control and track history of your key pricing decisions through automated approval workflows. You can also define their rules based on your needs and utilize them across your key pricing processes – quotes, rebates, price lists, promotions, Live Price Grid items.

Step	Approval Group	Approval Status	Executed by	Last Action Time	Comment	Reason
Margin Alert	Pricing Manager	Approved	Martin Wricke on beh ...	10/05/2021 13:40		The Quote needs to be approved because the margin percent...
Approver Total Revenue	Global Pricing Manag ...	Approved	Martin Wricke on beh ...	10/05/2021 13:40		The Quote needs to be approved because the total revenue ...
Price Quality	Global Pricing Manag ...	Approved	Martin Wricke on beh ...	10/05/2021 13:41		The Quote needs to be approved because the price quality ...

Figure 1. Example of approval steps for a Quote document

Key Deliverables

- Definition of approval workflow types and approval steps for each of them
- Definition of users, user groups or business roles as approvers
- Definition of conditions to apply in each approval step
- Full execution of workflow process
- Workflow history tracking

Workflow Setup

Select workflow type Quote:

Approval Steps

<input type="checkbox"/>	Step Id	Step Order	Step Label	Reason	Skip	Step Type	Min Approv	
<input type="checkbox"/>	1	1	Approve Price	The Quote needs to b...	NO			
<input type="checkbox"/>	2	2	Margin Alert	The Quote needs to b...	NO			
<input type="checkbox"/>	3	3	Approver Total Reven...	The Quote needs to b...	NO			
<input type="checkbox"/>	4	4	Price Quality	The Quote needs to b...	NO			

Add

>> Conditions

Figure 2. Example of approval steps definition

Workflow Setup

Select workflow type Quote:

<input type="checkbox"/>	Step Id	Condition ID	Condition Description	Condition	Skip	
<input type="checkbox"/>	1	1	Approve Price	IF (IS_NULL("line.Price"), fals...	NO	
<input type="checkbox"/>	2	2	Margin alert	"line.MarginPct" < 0.2	NO	
<input type="checkbox"/>	3	3	Total Revenue	"header.Revenue" > 15000	NO	
<input type="checkbox"/>	4	4	Price Quality	"line.NetPrice" < "line.PriceG...	NO	

Add

>> Approvers

Figure 3. Example of conditional decisions for approval steps definition

Quote P-714 requires your approval

Quote Name:	New Quote
Created by:	michal
Customer Information	
Customer Id:	CD-00004
Customer Name:	Price f(x) AG
Country:	Germany
Approval Information	
Reason	There is a new Quote need to be approved
Quote Information	
Effective Date:	2019-09-10
Expiry Date	2019-09-10
Quote Summary	
Total Revenue:	150 EUR
Total Quantity:	300
Total Margin:	-101 EUR
Total Margin %:	-67 %

View Quote
Approve
Decline

Figure 4. Example of email notification for an approver

Input Data

The following tables can be either manually loaded in Pfx via Pfx Excel Client or can be automatically integrated using CSV files in a Pfx dedicated SFTP folder:

- Basic Master Data (CHEM00)
- Guardrails Data
- Competitor Data

Out-of-scope business functions and features (Can be configured, but not included in the Chemical Industry Catalog)

- Ability to set up Science based guardrails using Optimization module (Use Case CHEM14)
- Any other quote analytics
- Notifications and Alerts on quotes
- Ability to apply rounding rules within each step of the price calculations.
- Win/loss quote tracking
- Customer-Facing templates

Implementation Level of Effort

2 sprints/1FTE CE

Base Line Projected Annual Impact*

Value projections

Parameters (Value Case #13)			General Assumptions (sample)		Projected Annual Impact (for sample)	
Calculations			C-State	F-State		
Improve time to quote (sales efficiency)						
% of business subject to quoting	42.0%		RUM	100M		
Estimated Win Rate - closed quotes to created quotes	73.0%	75.0%	Margin%	10%	Direct	120.3k
Average Time to Create a quote (hours)	2 1/2	1 2/5	Quotes/mth	1,000	Indirect	1,586.5k
Annual Cost to generate existing quotes			Avg annual salary ...		Potential	330.0k
% of saved time used for additional quoting		10.0%	<u>Sales person</u>	250k		
Margin gained due to ability to create more quotes (\$)						
% of the 270 Last Quotes lost due to "too slow" response	10.0%	2.5%				
Margin lost due to "too slow" response						

Epic: Inbound data			
Basic Master Data	Already covered by CHEM00 which is a prerequisite for all CHEM Use cases, and thus for CHEM09		
Product Cost Data	Already covered by CHEM00		
Competitor data	Be able to access to Competitor data	use them throughout the application, especially in quotes for sales decisions support	<ul style="list-style-type: none"> There is a place where competitor prices information are stored at product level. Competition Data table suitability to be confirmed. In case it isn't a Datasource will have to be created as well as an Inbound interface to receive and populate the incoming Data.
Product quantity forecast per customer	Be able to access product quantity forecasts per customer	And use them in my quote	<ul style="list-style-type: none"> This needs to be stored in a separate datasource Mandatory fields are Date-from, date-to, product ID, customer ID, quantity, UoM
Epic: As a Sales Rep/Pricing Manager I want to have a quoting process set up			
Quote Type	Access a predefined quote type	speed up the process of creating a new Quote	<ul style="list-style-type: none"> 1 quote type is available The quote type holds 1 Quote header and 1 Quote Line-Item logics configured as per corresponding user story. Basic Quote actions functionalities are available: Create a new quote, edit a quote, start a workflow, link some attachments to the quote, duplicate a quote, delete a quote, create a revision, email a quote, export a quote ... Workflow Status is set up by the system. There is an interface where the user can access all approval steps and their status. The pending step is highlighted in blue color. Attachments tab is available: There is an interface where the user can add, and view attached files. For each file, the user can see who and when uploaded it. If it has been sent by email, then the user can see by which user to which recipient. The ability to add or remove attachments depends on the document status and your user roles. A messages tab is available as well. There is an interface where the user can communicate with other users about matters regarding this Quote.
Quote Header	Define quote level parameters	Provide a price to my customer	<p>There is a quote Header interface that summarizes the basic quote information, such as: for which customer the Quote is, effective and expire dates, user group entitlements</p> <p>Following header options are provided:</p> <ul style="list-style-type: none"> Description field Effective Date / Expire Date External Reference – Optional free text field. User groups (Edit) - Allows the user to set which User Groups can edit the quote. User group (View details) - Allows the user to set which User Groups can view the quote. Customer picker
Quote Line Item	Define line-item level parameters	Provide a price to my customer	<p>There is a quote Items interface where the user can select the products (items) to be included within the Quote.</p> <p>The user can also set up price parameters per line-items:</p> <ul style="list-style-type: none"> - Price,

			<ul style="list-style-type: none"> - Quantity - Discount.
Quote Line Item - Product quantity	Specify a quantity for a quoted Product.	Provide a quotation matching the quantity needs	There is a field where the user can enter a quantity at line-item level.
Quote Line Item - Product Price/discount	Negotiate a price or discount % for a quoted Product.	Provide a discount (additional, flat %, default %) to the customer	There is a field where the user can enter a price and a discount at line-item level. Discount less than 0 is ignored. Discount input is optional.
Product history	Access to Product history information	Get some information on my customer buying behavior	This user story requires Product quantity forecast at customer level. The later should be provided by the customer. Product history information aims to show the Target Quantity Total (the forecasted sold quantity) VS the Target Quantity Gap which is the difference between the forecast and the Actual quantity sold. The actual quantity bought is based on transactional data. A Lookup should be configured to calculate the value and enable the Target Quantity Gap calculation.
Competitor information	Access to Competitor information	As a Salesperson, Provide consistent pricing to my customer	Competitor data is required. We expect competitor prices at product level. Competitor prices are retrieved in the quote at line-item level. Based on the availability of the data, information such as Competitor median price, Lowest competitor price or Top 5 competitor prices can be displayed.
Previous Prices	Access to previous prices information	As a Salesperson, Provide consistent pricing to my customer	There is a lookup configured on transactions data. Based on the data availability, previous unit price and the corresponding margin% are displayed. Transactional data are required as well as margin calculation components details.
Pricing details	Access to pricing details	Understand my Price breakdown	There is a place where pricing details are displayed. Based on the data availability, the pricing details display the price breakdown meaning all price components details. We expect at least to be provided with costs data for margin calculation purposes.
Inline analytics - Benchmark analysis	Get contextual insights around my item within the quote	As a salesperson, take better guided decision	<ul style="list-style-type: none"> - Ability to have inline analytics scatter plot chart displaying past transactions and current open quote versus guardrails - Ability to see all the transactions combined, or to benchmark only past transactions focused on same customer type. We expect a customer hierarchy to be available and identifiable in the transactions data set. - The chart is based on a transactions data set. (We expect Transactions data set to be available based on "Invoice line items or transactional data" User story.) - The following metrics are displayed: Floor, target, Stretch, prices as well as the invoice price and the corresponding quantity of the past transactions. - Floor, target and stretch prices are not historical ones, they are the actual guardrails within the context of the current open quote. - Ability to drag and zoom in the chart.

Pricing Guidance	Get pricing guidance within the quote	As a salesperson, take better guided decision	This user story requires price guardrails data. There is a place where Floor, Target, Stretch prices guardrails are displayed. There is a logic configured to retrieve them from the place they are stored (see "Guardrails table" User story). Those are suggested guardrails defined at line-item level.
Deal Score	Get direct quote performance insights	As a salesperson, take better guided decision	There is a place where a gauge displays the deal score. Score base calculation should be configured based on business rules based on Margin% provided by the customer. Business rules can be managed in a parameter table based on Product attributes.
Quote Summary	View summary data for quoted items	Review the overview of the quote and understand profitability.	Summary data for quoted items are visible on Header level.
Epic: As a Sales Rep/Pricing Manager I want to give Sales guardrails to my team			
Guardrails table	Be able to set up price guardrails within PFX system	use them throughout the application, especially in quotes for sales guidance	<ul style="list-style-type: none"> • There is a table created for guardrails set up. • We expect 3 levels of guardrails (Floor, target and stretch) • We expect that the set-up of the guardrails will be done according to one of the two following scenarios only: <ul style="list-style-type: none"> □ The user has the ability to either manually enter Price guardrails or load them in the table. □ Price guardrails can be defined at any preferred level of granularity based on available customer and product attributes. □ In both scenarios, Guardrails can take multiple formats. Guardrails can be defined either as an effective price or as a margin value (absolute value or percentage). If margin values are expected as guardrails, complete cost data is required for future related calculations. However, only one format will be supported by the table at a time.
Guardrails maintenance	Be able to maintain price guardrails within PFX system	use them throughout the application, especially in quotes for sales guidance	<ul style="list-style-type: none"> • Ability to manually override guardrails in the guardrails table • Ability to upload a new guardrails file or to add new records directly in the guardrails table.
Guardrails quote logic	Have a logic that retrieves the proper Price guardrails in the quote	Get price guidance decisions support for the sales team	<ul style="list-style-type: none"> • Ability to get visibility on price guardrails for each quote line item. • If price guardrails are defined as price value as per the "Guardrails table" user story, then a lookup logic is configured on the Guardrails table and retrieves the proper guardrails for a given customer/ product combination we are quoting for. • If price guardrails are defined as a margin value as per the "Guardrails table" user story, a logic is configured to back-calculate the corresponding price. With this scenario, complete cost data is required.
Epic: As a Sales Rep/Pricing Manager I want to set an approval workflow			
Approval level definition	Define the number of approval levels for quotes	create a centralized approval process defined by the roles of my team	The approval workflow meets the approval steps as defined by the business. IE - Deals above the target margin are approved automatically; Deals between the target margin and the target floor will trigger the approval workflow; deals below the floor can be rejected or sent for approval as defined by the customer.
Approver & watcher definition	Define approvers and/or watchers for each approval level.	empower the appropriate users to review deals and approve or deny	The selected user type receives an email notification as defined in the approval workflow. The selected user is able approve or deny the quote via the call-to-

	This can be specific to a user or user group.		action in the email. The selected user can log in to Pricefx and approve or deny the quote.
Approval level conditions	Define condition(s) for each approval level.	direct quotes to the right role for their review and approve/reject decision based on their empowerment levels	For a quote that falls between the target margin and floor, the approval workflow is triggered, sending a notification to the appropriate party. The approver is able to approve or deny any notification.

Scope Validation and Project Readiness Workshop – Validation Questions:

Questions		Answers	
Q1		A1	
Q2		A3	
Q3		A4	
Q4		A5	
Q5		A6	
Q6		A7	
Q7		A8	
Q8		A9	
Q9		A10	
Q10		A11	
Q11		A12	
Q12		A13	
Q13		A14	