


Profitability improvement of a global B2B specialty chemicals client



*Profitability improvement of a global B2B specialty chemicals client, covering **key pricing and policy levers to achieve a 3.5% ROS growth**. We started with a diagnostic where we identified and explored seven areas of opportunity, the most important being **tail pricing and price variability**. We took a **highly analytical approach** and focused on developing a **heuristic model to size the impact and drive commercial decisions** resulting in moving away from the traditional cost-plus pricing. Subsequently we **enabled the sales team** to bring the price increases to the market and **lead successful negotiations**.*

PE owned chemical client used a heuristics based pricing optimization to move away from a cost plus pricing model to unlock ~3.5% RoS

Client context

- USD ~300m B2B industrial client with multiple regions and a **very complicated, inefficient pricing structure**
 - >10,000 products across 3 BU and >3,000 customers around the globe (Americas, EMEA and APAC) were part of the effort
 - Different prices for different customers through discounts
 - Each sub-region has its own pricing scheme (e.g., run-up pricing, list pricing)
- **Pricing approach** has relied on market knowledge, sales people experience and customers willingness to pay
 - Each region used its own pricing approach with no alignment among the business units
 - Very low analytical power within the organization with limited openness to an analytical approach

Client name: X
Team set-up: X
Fees Structure: X

Approach

- We used a holistic approach from day 1 – including a **very diverse team** (see team page)
- The 6 months engagement started with a 8 weeks outside-in diagnostics and continued with 4 months of design and implementation in all 3 different regions
- We used a highly analytical approach for:
 - **Tail pricing (20-40% of the rev):**
 - Segmented these products using specific heuristics based partly on data and partly on clients decisions
 - Each tail product was segmented based on specific heuristics and attributed a price increase
 - **Price variability**
 - Combined market conditions, model outputs and client feedback to decide on specific pricing actions to reduce variability amongst customers
- We were able to find additional impact by finding pricing leakages (e.g., freight)
- All these pricing decisions were backed up by sales reps negotiation training and development of messaging methodology

What was unique: X

Impact

- **\$9.2M of additional margins which amounted to ~3.5% ROS**
- New analytical pricing approach fully adopted by all sub-regions
 - ~40 different customized models for each pricing methodology
 - Changed mindset and behaviors with all CEO-1 and CEO-2 clients
- New and aligned policies across all regions (e.g., a surcharge on small orders)
- Aligned surgical (by product) price increase methodology across all regions with all customers
- >2,700 products with a new price across ~900 distinct customers
- **Commitment of all pricing teams to capture the value in the next 12-18 months**
 - All price increases have either been communicated to customers or will be in the next few weeks
- A new digital tracking approach which included introduction of dashboards, pricing cadence and a war room

Value identified for the client focused on nine areas

Value pricing Transaction pricing

| Run-rate opportunity size, \$M | | Description of opportunity |
|--------------------------------|---------|--|
| A Tail pricing | 4.7-6.1 | Expand margins in the long tail of products using heuristic approach to balance opportunity and risk |
| B Price variability | 1.8-3.1 | Reduce unwarranted negative variability in customer-specific pricing |
| C Small orders | 1.0-1.5 | Reduce cost-to-serve profit leakage through pricing to better cover incremental unit fixed costs of small orders |
| D Customer performance pricing | 1.0-2.0 | Instituting closer management of customer-performance-related discounts (i.e., volume discounts) |
| E Freight charges | 1.0 | Reduce leakage from freight spend on orders switched from collect to prepaid terms due to late delivery |
| F Competing structures | 0.4-1.0 | Shore up leakages between competing legacy pricing structures on comparable products |
| G Packaging | 0.6-0.9 | Assign different prices for products with more expensive packages |
| Total | 10-15 | |

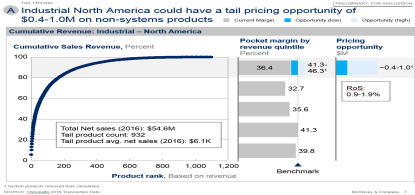
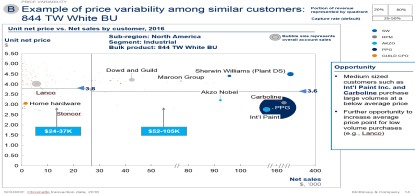
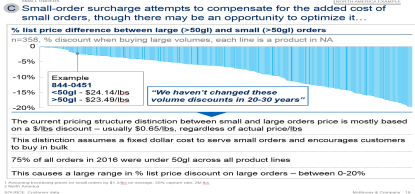
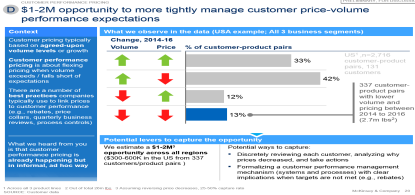


- All levers were addressable across all regions
- Tail and price variability were the levers that had the most impact in all the regions

1 Based on initial interview on Thermosets only. Estimate may evolve as more scope is included.

Combination of insights diagnostic algorithms/tools identified value quickly (1/2)

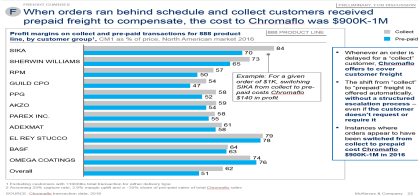
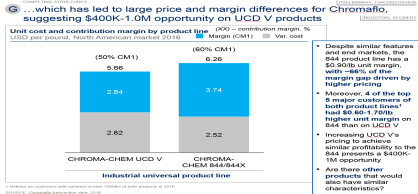
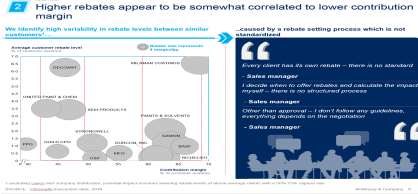
Details to follow

| | Opportunity | Description | Key assumptions | Size of lever, \$M |
|--------|--|---|--|----------------------|
| Levers | A Tail pricing  | Increasing prices of low volume products with below benchmark margins | Increasing tail products margins to benchmark and an additional 0-5% on top | 4.7-6.1 ¹ |
| | B Price variability  | Reducing price variability among customers who buy the same products, while accounting for geography and volume | Increasing below average prices to the average price level of each product-customer segment Assuming price increase to apply on 25-50% of customers | 1.8-3.1 |
| | C Small orders  | Eliminating instances when lower volume is priced lower than higher volume and increasing surcharges | Eliminating 75-100% of all instances when lower volume orders are priced lower than higher volume orders | 1-1.5 |
| | D Customer performance  | Tying pricing with customer performance e.g., increasing pricing for customers who reduce volumes | Reversing 25-50% of all price reductions for customers who reduced volume | 1-2 |

1 An additional \$2Mn opportunity from expanding the tail to 40% of the revenues

Combination of insights diagnostic algorithms/tools identified value quickly (2/2)

Lever

| Opportunity | | Description | Key assumptions | Size of lever, \$M | |
|-------------|----------------------|---|---|--|---------|
| E | Freight Charges | <p>When orders ran behind schedule and collect customers received prepaid freight to compensate, the cost to Chromaflo was \$900K-1M</p>  <p>Example: For a given order of 47K, assuming SBC then collect to pre-paid costs Chromaflo \$1.2M in profit</p> <p>When an order is delayed for a "collect" customer, Chromaflo must pay for customer freight. The cost from collect is offset mathematically without a structural change if the customer doesn't request or require it.</p> <p>Increased volume, increased order to cash time, increased from collect to pre-paid, from \$900K-1M in 2018</p> | Closing the contribution margin gap between collect and pre-paid on 25% of the shipments | 1 | |
| F | Competing structures | <p>...which has led to large price and margin differences for Chromaflo, suggesting \$400K-1.0M opportunity on UCD V products</p>  <p>Unit cost and contribution margin by product line (50% CM1) (60% CM1)</p> <p>CHROMA-CHEM UCD V CHROMA-CHEM B44/B44X</p> <p>Industrial universal product line</p> <p>Despite similar features and end markets, the B44 product line has a \$0.90 unit margin, with 80% of the margin gap driven by higher pricing</p> <p>Moreover, 4 of the top 5 major customers of both product lines had \$0.40-1.70 higher unit margin on B44 than on UCD V</p> <p>Increasing UCD V's price to achieve similar profitability to the B44 segments a \$400K-1M opportunity</p> <p>Are there other products that would also have higher contribution margin?</p> | Closing 40-100% of the contribution margin gap between 844 and UCDV products | 0.4-1 | |
| H | Packaging | <p>Higher rebates appear to be somewhat correlated to lower contribution margin</p> <p>We identify high variability in rebate levels between similar customers</p>  <p>Caused by a rebate setting process which is not standardized</p> <p>Every deal has its own rebate - there is no standard</p> <p>Sales manager: I don't want to offer rebates and calculate the impact myself - there is no structured process</p> <p>Sales manager: Other than standard - I don't follow any guidelines, everything depends on the negotiation</p> <p>Sales manager</p> | Identifying the difference in costs of specific packages and charging a surcharge for the high value packages | 50% of packaging price increases can be achieved | 0.6-0.9 |

1 An additional \$2Mn opportunity from expanding the tail to 40% of the revenues

A The 5 steps we used to build a heuristics based tail model

Shaped the indicators together with pricing teams

1

the weights and bands we agreed on in last week's p - Industrial

| Opportunity indicators | Low | Med | High | Allocat (out of) |
|---|---------|-----------|--------|------------------|
| ① CRM margin | 40% | 40% | 40% | 40% |
| ② Product share of customer's total net sales | <10% | 0% | >3% | |
| ③ Leverage of product differentiation | 1 | 2 | 3 | |
| ④ Acquisition per its | \$ 100k | \$ 4-100k | \$ 40k | |
| ⑤ Shipping conditions | MAVE | MFO | MTQ | |
| ⑥ Shipping mode | 1 | 2 | 3 | |
| ⑦ Position on the product tail | <50% | 50-95% | >95% | |
| ⑧ Customer spend as % of total segment sales | <0.2% | 0.2-2% | >2% | |
| ⑨ Utilization of revenue source | | | | 100% |

Each product segment decides on **their own indicators and weights**

Built tail pricing model

2

| Indicator | Weight | Band | Score | Weighted Score |
|---------------|--------|---------|-----------|----------------|
| CRM margin | 40% | 40% | 40% | 16% |
| Product share | 10% | 0% | 3% | 0.3% |
| Leverage | 10% | 1 | 2 | 2% |
| Acquisition | 10% | \$ 100k | \$ 4-100k | 4% |
| Shipping | 10% | MAVE | MFO | 10% |
| Mode | 10% | 1 | 2 | 2% |
| Position | 10% | <50% | 50-95% | 5% |
| Spend | 10% | <0.2% | 0.2-2% | 2% |
| Utilization | 10% | | | 10% |

Use the agreed indicators to build a tail pricing model **tailored to each product segment**

Recalibrated weights and indicators

3

| Indicator | Weight | Band | Score | Weighted Score |
|---------------|--------|---------|-----------|----------------|
| CRM margin | 30% | 40% | 40% | 12% |
| Product share | 10% | 0% | 3% | 0.3% |
| Leverage | 10% | 1 | 2 | 2% |
| Acquisition | 10% | \$ 100k | \$ 4-100k | 4% |
| Shipping | 10% | MAVE | MFO | 10% |
| Mode | 10% | 1 | 2 | 2% |
| Position | 10% | <50% | 50-95% | 5% |
| Spend | 10% | <0.2% | 0.2-2% | 2% |
| Utilization | 10% | | | 10% |

Based on the outcome of the model, the teams **re-calibrate the indicators and weights** to represent the actual opportunity

Found exclusions and other issues

4

| Indicator | Weight | Band | Score | Weighted Score |
|---------------|--------|---------|-----------|----------------|
| CRM margin | 30% | 40% | 40% | 12% |
| Product share | 10% | 0% | 3% | 0.3% |
| Leverage | 10% | 1 | 2 | 2% |
| Acquisition | 10% | \$ 100k | \$ 4-100k | 4% |
| Shipping | 10% | MAVE | MFO | 10% |
| Mode | 10% | 1 | 2 | 2% |
| Position | 10% | <50% | 50-95% | 5% |
| Spend | 10% | <0.2% | 0.2-2% | 2% |
| Utilization | 10% | | | 10% |

Review **the actual customer-product pairs** to single out product lines and customers that should not be included

Decided on actual pricing increases and capture rate

5

| Industrial | Price Increase % | Total Impact |
|------------|------------------|--------------|
| Low | 5% | \$ 513,673 |
| Medium | 21% | |
| High | 32% | |

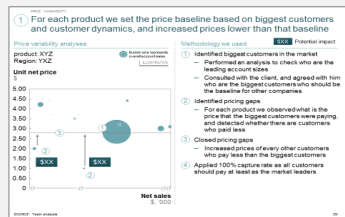
Based on reviewing the customer-product pairs, **each group decides on a price increase and capture rate** for each opportunity-risk bucket

A highly iterative process which included numerous daily mini-workshops with the client in order to develop a truly accurate model along with increasing clients' confidence in the model

B The 6 steps we used to build a variability pricing/margin model

Harmonized prices to largest customers

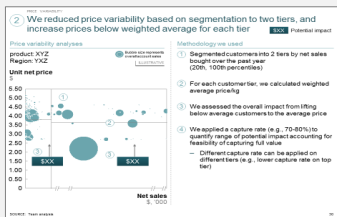
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Set the price baseline for each product based on biggest customers and market dynamics

Compared between different customers

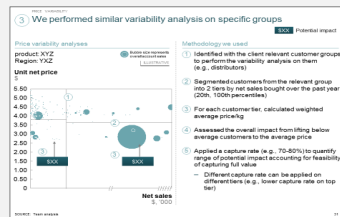
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Compared each product's price among all customers who are buying the same product and identified variability

Compared between customers from the same group

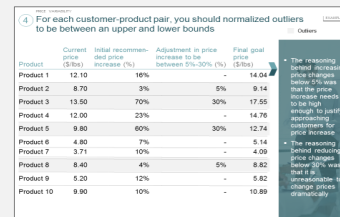
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Performed additional price comparison between customers from the same group

Normalized outliers

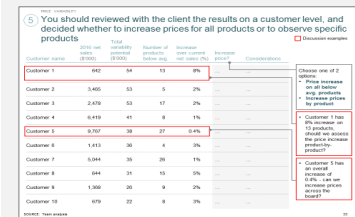
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Normalized high and low outliers and extract them when needed

Analyzed impact on a customer level

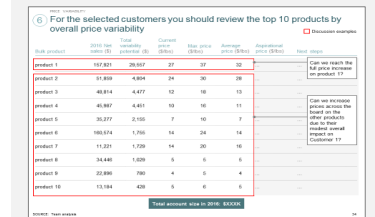
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Discussed whether to approve the impact on a customer level or to observe it on a product level

Analyzed impact on a product-customer level


6













Discussed each product of the remaining customers with the client and align on what is the actual opportunity

A highly iterative process which included numerous daily mini-workshops with the client in order to develop a truly accurate model along with increasing clients' confidence in the model

A very diverse, multi-regional, cross capabilities team was involved throughout the entire engagement¹

 Main contacts

| | | |
|---|---|--|
| DCS who owned the PE relationship | B2B pricing expert who has done similar efforts in the pasts | MI coach staffed from Day 1 who made transition into implementation seamless |
|  David Schoeman Senior Partner |  Mason Chapple Pricing Expert |  Mihai Teognoste Senior Implementation coach |
| Partner with deep industry knowledge | MSV/Periscope analyst embedded full time in the team | And a team of generalists who helped bring it all together |
|  Daniel Aminetzah Partner |  Henry Ni Pricing analyst |  Guy Benjamin Engagement Manager |
| M&S practice experienced ED with vast pricing experience | Remote data support from Costa Rica who helped build the models | |
|  Shivanand Sinha Associate Partner |  Diana Bogantes Jr. data analyst |  Yonatan Horowitz Business analyst |
| | |  Mark Lotman Business Analyst |

¹ See additional PD on KNOW